Università di Trieste

Scuola di Dottorato di Ricerca in Fisica

Relazione scientifica sull'attività 2012.

1. Situazione globale della Scuola nel 2012.

L'obiettivo della Scuola è quello di preparare i propri dottorandi alla ricerca in fisica fondamentale ed applicata formando delle figure professionali in grado di operare nel campo della ricerca scientifica avanzata presso enti di ricerca, università e nel mondo produttivo. L'attivita' di formazione e di ricerca scientifica, svolta nell'ambito di progetti di frontiera nel panorama della fisica internazionale, puntano allo sviluppo di competenze, capacità e conoscenze atte a condurre in modo autonomo e con originalità progetti di ricerca scientifica. Inoltre, grazie all'abitudine al rigore metodologico, all'approccio autonomo alla soluzione dei problemi, al lavoro in progetti di punta spesso in collaborazioni internazionali, i ricercatori così formati trovano frequentemente collocazione in ambiti lavorativi anche diversi da quello della ricerca in fisica.

I cinque ambiti di ricerca previsti (**Astrofisica, Fisica della Materia,Fisica Medica,Fisica Nucleare e Subnucleare e Fisica Teorica**) coprono un campo molto esteso della fisica moderna. In almeno tre di essi la ricerca è essenzialmente di tipo fondamentale, mentre negli altri due (Fisica della Materia e Fisica Medica) e' anche o prevalentemente applicata.

Quest'ampia offerta di tematiche di ricerca e' possibile anche grazie all'apporto di Enti di Ricerca pubblici e privati convenzionati con l'Università' di Trieste. I dottorandi, oltre alle attrezzature messe a disposizione dall'Università di Trieste, hanno così accesso alle infrastrutture ed attrezzature d'avanguardia degli enti indicati nella seguente tabella:

1	Sincrotrone Trieste S.C.p.A.	Ente Privato
2	Laboratorio Nazionale TASC-IOM CNR	Ente Pubblico
3	Istituto Nazionale di fisica Nucleare – Sezione di Trieste	Ente Pubblico
4	Istituto Nazionale di Astrofisica - Osservatorio astronomico Trieste	Ente Pubblico

5	Laboratorio Nazionale TASC-IOM CNR	Ente Pubblico
6	Democritos National Simulation Center / INFM	Ente Pubblico

Il lavoro di ricerca presso strutture di ricerca ed università anche straniere e' un fattore di grande rilievo nella formazione del dottorando: nell'ambito della propria attività di ricerca i dottorandi svolgono frequentemente stage all'estero ed in Italia. Si indicano qui sotto alcune strutture ove si sono effettuati stage nel 2012:

Tata Institute of Fundamental Research, Mumbai (India)
Laboratorio CERN (Ginevra, CH)
UC Davis, University of California, Davis Calif. (USA)
Paul Scherrer Institute, Villigen (CH)
ESO di Monaco di Baviera
DIPC, San Sebastian (Spagna)
Japan Synchrotron Radiation Research Institute, Giappone
Columbia Laboratory for unconventional electronics, Columbia University, N.Y. (USA)

Qui di seguito si elencano alcuni dati rilevanti relativi all'anno 2012.

- A dicembre 2012 risultano iscritti 34 studenti (11 per il XXV ciclo, 11 per il XXVI e 11 il XXVII, 1 Prorogato dai cicli precedenti).

- A marzo ed aprile 2012 si sono svolti gli esami finali dei dottorandi del XXIV ciclo su 2 commissioni (Fisica della Materia e Fisica Teorica, Fisica Nucleare e Subnucleare). Tutti i 7 dottorandi hanno superato l'esame.

- 9 studenti del XXV ciclo e prorogati sono stati ammessi all'esame finale (6 di area Nucleare-Subnucleare e Fisica Medica, 3 di Area Fisica della Materia). Sono stati assegnati a ciascun candidato dei referee esterni indipendenti. 3 studenti hanno ottenuto una proroga per motivi scientifici.

- XXVI ciclo: 11dottorandi hanno completato con successo le attivita previste per il 2012;

- XXVII ciclo: 11dottorandi hanno completato con successo le attivita previste per il 2012;

- Il ciclo XXVIII e' stato attivato con 11 borse (5 UniTS, 2 Sincrotrone,2 INFN, 1 INAF, 1 Fondo Sociale Europeo). Tutte le borse sono state assegnate.

- No componenti Collegio dei Docenti: 21

- Maggio 2012: Pubblicazione risultati valutazione del Nucleo dell'Universita' di Trieste: risultato A+.

2. Attivita' formativa e di ricerca dei dottorandi.

La formazione, oltre all'impegno principale, cioe' il training in uno specifico campo di ricerca sotto la guida di un supervisore, include, a seconda dei casi, corsi istituzionali, lezioni specialistiche curricolari organizzati anche in sede. Il piano di studi proposto dallo studente viene vagliato ed approvato dalla Commissione didattica dopo le eventuali opportune modifiche.

La parte di offerta formativa specificatamente organizzata dalla Scuola per il 2012 e' indicata nella tabella sottostante:

TIPO ATTIVITA' DIDATTICA	TITOLO ATTIVITA' DIDATTICA	ANNO	ORE	DOCENTE	NOTE
Corsi di insegnamento	Rivelatori al Silicio ed elettronica di lettura	1	16	BONVICINI VALTER	
Corsi di insegnamento	Fisica astroparticellare: raggi cosmici e astrofisica gamma	1	16	BOEZIO MIRKO	
Corsi di insegnamento	Chemical evolution of galaxies	1	10	MATTEUCCI MARIA FRANCESCA	
Corsi di insegnamento	Cosmic Structure Formation	1	16	BORGANI STEFANO	
Corsi di insegnamento	Test sperimentali del Modello Standard	1	16	COSSUTTI FABIO	
Corsi di insegnamento	Flavour e violazione di CP	1	16	LANCERI LIVIO	
Corsi di insegnamento	QDC structure of the nucleon	1	24	BRADAMANTE FRANCO	

Corsi di insegnamento	Fisica sperimentalie con Kaoni di bassa energia	1	12	CAMERINI Paolo	
Corsi di insegnamento	Rivelatori a gas di particelle ionizzanti e rivelatori RICH	1	15	DALLA TORRE SILVIA	
Corsi di insegnamento	Metodi di fit e Filtro di Kalman	1	10	SCHIAVON PAOLO	
Corsi di insegnamento	Introduzione ai metodi Bayesiani	1	16	MILOTTI EDOARDO	
Corsi di insegnamento	Molecular self-assembling and nanostructures	1	20	MORGANTE ALBERTO	
Corsi di insegnamento	Rudimenti di MonteCarlo quantistico	1	25	SENATORE GAETANO	
Corsi di insegnamento	fisica delle interazioni Spazio-Geospazio	1	20	MESSEROTTI MAURO	
Corsi di insegnamento	Simulazione delle interazioni radiazione-materia con Geant4	1	8	LONGO FRANCESCO	
Corsi di insegnamento	Galaxy formation	1	10	MONACO Pierluigi	

Le altre attivita' formative seguite dai dottorandi si possono evincere dalle schede piu' sotto allegate.

3. Attivita' scientifica

a. Elenco dottorandi, supervisori e titoli ricerca

Nella tabella sottostante sono elencati i dottorandi dei cicli attivi con i rispettivi supervisori e titoli delle ricerche.

N	DOTTORANDO		Supervisor		Titolo ricerca
1	**SCHIZZI Andrea**	**FIS/04**	Della Ricca	**XXVII**	Study of Z boson and hadronic jets associated production in pp collision with the CMS detector
2	**LA LICATA Chiara**	**FIS/04**	Della Ricca	**XXVII**	Characterization of W production in proton-proton collisions with the CMS detector
3	**PANIZZO Giancarlo**	**FIS/04**	Verzegnassi/Cobal(cosu	**XXVII**	Produzione associata di quark bottom e bosoni Z ad LHC come possibile segnale di nuova fisica
4	**COSTANZI ALUNNO CERBOLINI Matteo**	**FIS/05**	Borgani	**XXVII**	Studio della fisica dei neutrini tramite l'analisi della struttura su grande scala dell'Universo
5	**DI FRAIA Michele**	**FIS/03**	M.Coreno (Elettra) /Parn	**XXVII**	Rivelazione risolta in tempo e per immagini della struttura elettronica di molecole e clusters
6	**CAFARO Costantino**	**FIS/01**	Giovani(Arpa)/Budinich	**XXVII**	ANALYSIS OF RADON PRONE AREAS IN FRIULI VENEZIA GIULIA AND CONTAMINATION IMPACT ON POPULATION
7	**POMANTE Emanuele**	**FIS/05**	Cristiani/Matteucci	**XXVII**	STUDIO DEL MEZZO INTERGALATTICO CON SPETTROSCOPIA AD ALTA RISOLUZIONE DI QUASARS
8	**DOGO Federico**	**FIS/01**	Milotti	**XXVII**	
9	**FILIASI Mario**	**FIS/03**	Vesselli/Peressi	**XXVII**	Studio di modelli fisico-matematici per la valutazione del rischio finanziario
10	**CUMANI Paolo**	**FIS/04**	A.Gregorio	**XXVII**	La missione spaziale Gamma-400: ottimizzazione dell'apparato
11	**TITIMBO CHAPARRO Kelvin Ruben**	**FIS/02**	F.Benatti	**XXVII**	Decoherence, Entanglement and Memory Effects in Many-Body Systems
12	**GRIECO Valentina Luciana**	**FIS/05**	**Matteucci/Longo**	**XXVI**	Connection between supernovae and γ–ray bursts
13	**Salvini Simona**	**FIS/04**	**Treleani**	**XXVI**	Multiple Parton Interactions in collisions of protons with light nuclei
14	**CANDELISE Vieri**	**FIS/04**	**Della Ricca**	**XXVI**	Measurement of the W+jets and Z+jets production in proton-proton collisions at sqrt(s)=7 TeV
15	ORLANDO Fabrizio	**FIS/03**	**Baraldi**	**XXVI**	PROPRIETA' FISICHE E FUNZIONALIZZAZIONE DI MATERIALI A BASSA DIMENSIONALITA'
16	BIANCO Raffaello	**FIS/03**	**R. Resta**	**XXVI**	Struttura elettronica di isolanti topologici
17	FORMATO Valerio	**FIS/04**	**Boezio/Gregorio**	**XXVI**	Study of cosmic-ray propagation in the Galaxy and in the heliosphere with the PAMELA experiment.
18	DONADI Sandro	**FIS/02**	**A. Bassi**	**XXVI**	Modelli di collasso spontaneo della funzione d'onda: analisi matematica e fenomenologica
19	BATTISTONI Andrea	**FIS/03**	**Bencivenga/Parmigiani**	**XXVI**	Spettroscopia acustica ad ampio spettro in sistemi disordinati
20	MUNARI Emiliano	**FIS/05**	**Biviano/Borgani**	**XXVI**	Dinamica ed evoluzione delle galassie in ammassi: analisi e confronto di dati ottenuti da simulazioni ed osservazioni
21	GIANGRISOSTOMI Erika	**FIS/03**	**Mascovecchio / Parmigiani**	**XXVI**	Studio della materia in condizioni termodinamiche estreme attraverso esperimenti di tipo pump&probe
22	TAVAGNACCO Daniele	**FIS/05**	**Gregorio**	**XXVI**	Analisi e Caratterizzazione di Effetti Sistematici per lo Studio delle Anisotropie del Fondo Cosmico a Microonde con lo Strumento Planck LFI
23	OLIVIERI Giorgia	**FIS/03**	Morgante	**XXV**	Organic Electronic Devices: Investigation of the Electronic Transport Properties at the Molecular Level
24	Capogrosso Valentina	**FIS/03**	Parmigiani	**XXV**	Dimensionality and ordering effects on the electronic structure of low dimensional strongly correlated electron transition metal oxides.
25	Novelli Fabio	**FIS/03**	Parmigiani	**XXV**	In search of selective excitations for studying out-of-equilibrium properties in strongly correlated electron systems and high temperature superconductors
26	Contini Emanuele	**FIS/05**	Borgani/De Lucia	**XXV**	Galaxies through the cosmic ages: the role of primordial conditions and environmental effects" finanziato dallo European Research Council come starting Independent Research Grant" – responsabile del progetto dott.ssa Gabriella De Lucia
27	LOPEZ Francs Caroline	**FIS/07**	Longo Renata	**XXV**	Single photon counting system for mammography with synchrotron radiation
28	DORIGO Mirco	**FIS/04**	Zanetti/Vitale	**XXV**	Search for New Physics in the B0_s--> J/Psi phi and B0_s-->phi phi Decays at CDF
29	MONTANINO Damiana	**FIS/04**	Cossutti/Della ricca	**XXV**	Study of the associated production of a Z boson and jets in pp collisions at sqrt(s) = 7 TeV at CMS
30	GIACOBBE Paolo	**FIS/05**	Lattanzi (TO)/Matteucci	**XXV**	Survey fotometrica di nane M per la ricerca di pianeti extrasolari rocciosi ed abitabili
31	LEA Ramona	**FIS/04**	Camerini	**XXV**	Study of hypernuclei production in Pb-Pb collisions at $\sqrt{s}$NN = 2.76 TeV with the ALICE experiment at the LHC
32	MOHAMMADI Sara	**FIS/03**	Tromba/Parmigiani	**XXV**	Bio-medical X-ray imaging with Synchrotron Radiation: study and implementation of algorithms related to phase sensitive techniques
33	ARGENTIERI Giuseppe	**FIS/02**	Benatti	**XXV**	Fluttuazioni ed entanglement in sistemi quantistici mesoscopici
34	VATTAKUNNEL SHAJI	**FIS/05**	Matteucci	**XXIV**	The cosmic star formation rate: Observational measures and modelization

b. **Attivita' dei dottorandi nel 2012**

Nell'allegato No 1. Sono riportate le schede di attivita' di formazione e ricerca dei dottorandi relative all'anno 2012..

4. Sistema di Valutazione della scuola.

Svariati momenti di verifica si sono succeduti nel corso del 2012 per valutare l'attivita' di ricerca dei dottorandi e piu' in generale quella della scuola:

-Valutazione da parte del Collegio docenti e del Consiglio Scientifico dell'attivita' di ricerca e di formazione dei dottorandi di tutti i cicli mediante analisi delle relazioni e seminari degli studenti sull'attivita' svolta durante l'anno.

Il giudizio tanto del Collegio docenti quanto del Consiglio scientifico si posiziona mediamente tra il buono e l'ottimo.

-Valutazione da parte di referee esterni del lavoro di tesi di dottorato degli studenti dell'ultimo ciclo. Tutti i referaggi sono ampiamente positivi con dei picchi di eccellenza

- Valutazione da parte del Consiglio Scientifico dell'attivita' dei dottorandi, del livello scientifico del Collegio docente e dei supervisori, basata su una disamina di documenti forniti dal direttore e sulla partecipazione del Consiglio ai seminari di fine anno. Su tutti i punti menzionati il giudizio e' risultato ampiamente positivo.

- Valutazione interna da parte del Nucleo di Valutazione dell'attivita' della Scuola

Il giudizio e' risultato di eccellenza.

5. Risorse finanziarie

- Risorse finanziarie a disposizione per il funzionamento del dottorato (borse escluse) per il 2012: euro 224.000

6. Pubblicazioni dei dottorandi

Il monitoraggio e la valutazione della produttivita' scientifica dei dottorandi mediante pubblicazione su riviste con referee sono considerate elementi fondamentali di valutazione della qualità del lavoro di ricerca svolto . Viene pertanto chiesto a ciascun dottorando di indicare nelle relazioni di fine ciclo le pubblicazioni prodotte nel corso del lavoro di dottorato assieme alle eventuali relazioni a conferenze. L'analisi delle relazioni di fine ciclo dei dottorandi del XXV ciclo (vedi Schede Dottorandi Allegato 1) mostra una buona attivita' di pubblicazione di articoli su riviste con referee e di svariati contributi a conferenze e workshop. Durante i 3 anni di dottorato gli studenti del XXV ciclo hanno firmato o cofirmato circa 300 pubblicazioni.

7. Composizione collegio docenti

Composizione Collegio Docenti

n.	Cognome	Nome	Ateneo/Struttura	Dipartimento	Ruolo	Settore	Provenienza
1.	SENATORE	Gaetano	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA
2.	ARFELLI	Fulvia	TRIESTE	Dip. FISICA	RU	FIS/07	STESSA STRUTTURA
3.	BENATTI	Fabio	TRIESTE	Dip. FISICA	RU	FIS/02	STESSA STRUTTURA
4.	BORGANI	Stefano	TRIESTE	Dip. FISICA	PA	FIS/05	STESSA STRUTTURA
5.	BOSISIO	Luciano	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA
6.	CAMERINI	Paolo	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA
7.	CANTATORE	Giovanni	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA
8.	DELLA RICCA	Giuseppe	TRIESTE	Dip. FISICA	RU	FIS/01	STESSA STRUTTURA
9.	FRANCIOSI	Alfonso	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA
10.	GIRARDI	Marisa	TRIESTE	Dip. FISICA	RU	FIS/05	STESSA STRUTTURA
11.	GREGORIO	Anna	TRIESTE	Dip. FISICA	RU	FIS/05	STESSA STRUTTURA
12.	LANCERI	Livio	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA
13.	LONGO	Renata	TRIESTE	Dip. FISICA	PA	FIS/07	STESSA STRUTTURA
14.	MARDIROSSIAN	Fabio	TRIESTE	Dip. FISICA	PO	FIS/05	STESSA STRUTTURA
15.	MARTIN	Anna	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA
16.	MATTEUCCI	M. Francesca	TRIESTE	Dip. FISICA	PO	FIS/05	STESSA STRUTTURA
17.	MILOTTI	Edoardo	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA
18.	MODESTI	Silvio	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA
19.	PARMIGIANI	Fulvio	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA
20.	PERESSI	Maria	TRIESTE	Dip. FISICA	PA	FIS/03	STESSA STRUTTURA
21.	RUI	Rinaldo	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA

8. Internazionalizzazione

Lo sforzo di internazionalizzazione e' continuato nel 2012. Tuttavia, nonostante l'intenso lavoro e l'emissione di bandi dedicati, nessuno studente extracomunitario e' riuscito ad ottenere una borsa di dottorato, vuoi per non aver superato la soglia di ammissione vuoi per non aver ottemperato a tutti gli obblighi richiesti nel bando. Uno sforzo verso la semplificazione ed incentivi per gli studenti stranieri appaiono una via obbligata per una politica efficace.

9. Collocazione lavorativa dei dottorandi

Continua il lavoro di monitoraggio della collocazione lavorativa post diploma dei dottorandi: esso indica delle percentuali elevatissime di occupazione(~95%) con un percentuale di oltre il 85% di inserimenti in campi connessi al titolo.

10. Produzione Scientifica Collegio docenti.

L'attivita' di pubblicazione del collegio docenti risulta ampia e posizionata perlopiu' su riviste di elevata qualita' a livello internazionale. Essa e' riportata nell' Allegato 2.

11. Risultati valutazione per ciclo XXVII da parte nucleo di Ateneo.

Valutazione di idoneità espressa dal Nucleo di Valutazione	Positiva
Sul requisito relativo alla composizione del collegio dei docenti	OTTIMO
Sul requisito relativo alla adeguatezza delle risorse e strutture	OTTIMO
Sul requisito relativo alla collaborazione per svolgimento	
esperienza in contesto di attività lavorative	POSITIVO
Sul requisito relativo ai percorsi formativi	ADEGUATA
Sul sistema di valutazione	ADEGUATO
Vautazione globale	A+

12. Assegnazione referee esterni per studenti ciclo XXV.

I seguenti referee sono stati assegnati agli studenti che si presenteranno all'esame finale del XXV ciclo.

N	**DOTTORANDO**	**Supervisor**		**Referee 1**	**Referee2**	Titolo ricerca
1	OLIVIERI Giorgia	Morgante	**XXV**	Prof. Maurizio Canepa Dipartimento di Fisica Università di Genova canepa@fisica.unige.it (disponibile anche a essere membro di commissione)	Prof. Gvido Bratina Vice rector for research, University of Nova Gorica, Gvido.Bratina@ung.si	Organic Electronic Devices: Investigation of the Electronic Transport Properties at the Molecular Level
2	Capogrosso Valentina	Parmigiani	**XXV**	Andrea Damascelli damascelli@physics.ubc.ca	Mario Cuoco mario.cuoco@spin.cnr.it	Dimensionality and ordering effects on the electronic structure of low dimensional strongly correlated electron transition metal oxides.

3	Novelli Fabio	Parmigiani/Fausti	XXV	Dr Adolfo Avella: avella@sa.infn.it	- Dr. Ra'anan I.Tobe: r.i.tobey@rug.nl	In search of selective excitations for studying out-of-equilibrium properties in strongly correlated electron systems and high temperature superconductors
4	MOHAMMADI Sara	Tromba/Parmigiani	XXV	Prof. Josef Kaiser Brno University of Technology - Faculty of Mechanical Engineering - Institute of Physical Engineering Technicka, 2896/2, BRNO (CZECH REPUBLIC) Email: kaiser@fme.vutbr.cz	Dr.ssa Alessia Cedola CNR - Istituto di Fotonica e Nanotecnologie - Sede di Roma Via Cineto Romano 42, 00156 ROMA Email: cedola@ifn.cnr.it	Bio-medical X-ray imaging with Synchrotron Radiation: study and implementation of algorithms related to phase sensitive techniques
5	LOPEZ Frances Caroline	Longo Renata	XXV	Roberto Bellotti (Bari) Roberto Bellotti <Roberto.Bellotti@ba.infn.it>	Roberto Cirio (to), <cirio@to.infn.it>	Single photon counting system for mammography with synchrotron radiation
6	DORIGO Mirco	Zanetti/Vitale	XXV	Pierluigi Campana LNF Pierluigi.Campana@lnf.infn.it	Franco Simonetto Univ.Padova franco.simonetto@pd.infn.it	Search for New Physics in the B0_s--> J/Psi phi and B0_s-->phi phi Decays at CDF
7	MONTANINO Damiana	Cossutti/Della ricca	XXV	Prof. Attilio Andreazza (Universita` degli Studi di Milano and INFN, Sezione di Milano); Attilio.Andreazza@cern.ch	Dr. Maarten Boonekamp (IRFU/CEA Saclay, France) Maarten.Boonekamp@cern.ch	Study of the associated production of a Z boson and jets in pp collisions at sqrt(s) = 7 TeV at CMS
8	LEA Ramona	Camerini, Piano	XXV	Josef Pochodzalla Institut fuer Kernphysik Universitaet Mainz pochodza@kph.uni-mainz.de	Prof. Dr. Laura Fabbietti Physik Department E12, Techn. Univ. Muenchen; Laura.Fabbietti@ph.tum.de	Study of hypernuclei production in Pb-Pb collisions at √sNN = 2.76 TeV with the ALICE experiment at the LHC
9	VATTAKUNNEL SHAJI	Matteucci	XXIV	Massimo Persic <massimo.persic@gmail.com>	Marcella Brusa <marcella@mpe.mpg.de>	The cosmic star formation rate: Observational measures and modelization

13. Considerazioni finali

Il 2012 e' stato caratterizzato da attivita' , finanziamenti e numeri globali sostanzialmente in linea con l'anno precedente. La Scuola ha continuato a perseguire il suo sforzo di mantenimento del suo standard di qualita', considerato obiettivo prioritario. A questo scopo un monitoraggio continuo della qualita' scientifica del lavoro dei dottorandi mediante analisi delle relazioni, delle pubblicazioni e dei seminari di fine anno viene condotto annualmente. E' andato a regime l'uso di 2 referee esterni per giudicare il lavoro di tesi.

Tutti gli indicatori (giudizi da parte di diversi organi interni ed esterni, giudizi dei referee, giudizi delle commissioni d'esame finale, etc…) sono positivi; resta invece scarso il successo nell'attirare candidati di qualita' da paesi extraeuropei. Si ritiene che per una politica di maggior successo si debba poter utilizzare nuovi e piu' efficaci mezzi.

Il Direttore

ALLEGATO 1

SCHEDE ATTIVITA' DOTTORANDI

End-of-cycle Report

Candidate: Mirco Dorigo
Advisors: Dr. Anna Maria Zanetti, Dr. Marco Rescigno
University supervisor: Dr. Lorenzo Vitale

Doctoral School of Physics of the University of Trieste
XXV Entrance, 2010–2012

Research activity

My research activity during the PhD course has been conducted entirely with the INFN group of Trieste working in the Collider Detector at Fermilab (CDF) experiment, under the supervision of Dr. Anna Maria Zanetti (INFN Trieste) and Dr. Marco Rescigno (INFN Roma I). The CDF experiment is a collaboration of about 600 physicists from more than 50 institutions in 12 countries. The detector is a large, multipurpose solenoidal magnetic spectrometer surrounded by 4π projective calorimeters and fine-grained muon detectors that ended operations in September 2011. It measured energy, momentum and mass of a broad range of final-state particles produced in 1.96 TeV proton-antiproton collisions provided by the Tevatron collider.

Over the course of the first year, I have continued the work on the $B_s^0 \to \varphi\varphi$ decay started the year before with my Master degree's project on the first measurement of the polarization amplitudes of this decay mode. The $B_s^0 \to \varphi\varphi$ decay belongs to the class of decays of pseudoscalar mesons into two vector particles. They feature a rich dynamics that involves three different decay amplitudes corresponding to the polarization states allowed by angular momentum conservation. In the standard model, the quark-level $b \to s$ *penguin* process, which is a higher-order flavor-changing transition, dominates the amplitude. This provides an opportunity to indirectly access new physics through this channel, if exchange of new virtual massive particles occurs. Some deviations from theory expectations were indeed observed in similar channels. Explanations involving either new physics models or improved calculations within the standard model were proposed. Additional experimental information in B_s^0 penguin-dominated decays help distinguishing the various solutions.

The core of the polarization measurement is a simultaneous fit to the mass and the angular distributions of the final state particles from a signal of about 300 events. In the finalization of the measurement I have evaluated the biases in the measurement

due to the sculpting of the decay-time distribution induced by the trigger and carried out the calculation of all the systematic uncertainties of the measurement. I gave the first public presentation of the results (Moriond QCD 2010 [A5]) which include the best measurement of the $B_s^0 \to \phi\phi$ branching ratio, and the first measurement of the $B_s^0 \to \phi\phi$ polarization amplitude, showing a significantly suppressed longitudinal polarization. I reported them also at the CKM workshop 2010 [A4] and directly contributed to the corresponding Letter in *Physical Review* [1].

The $B_s^0 \to \phi\phi$ decay is predicted to exhibit tiny, if any *CP* violation. A measurement of nonzero *CP*-violating asymmetries would indicate physics beyond the standard model. After the completion of the polarization measurement, I've devised an original method to measure *CP*-violating asymmetries with our small signal sample of $B^0_s \to \phi\phi$ decays. In close collaboration with phenomenologists (Prof. J. Rosner, Prof. D. London, Dr. A. Datta) I've constructed new observables that make *CP* violation accessible in $B_s^0 \to \phi\phi$ decays even with small samples and have now been adopted also by LHCb in their $B_s^0 \to \phi\phi$ analysis. I have included the new observables in a maximum likelihood fit and measured them for the first time, obtaining no evidence for *CP* violation. The analysis was approved in March 2011 and I presented the results at the 2011 BEAUTY conference [A3]. These are published in *Physical Reviews Letters* [1].

While completing the $B_s^0 \to \phi\phi$ measurement, in the second year of my PhD course I've gradually moved my research interests toward the final CDF measurement of *CP* violation in B_s^0 mixing using the $B_s^0 \to J/\psi\phi$ decays. Particle-antiparticle oscillations of the B_s^0 meson proceed through loop transitions where possible new particles or couplings can compete with the standard model ones yielding observable contributions. The *CP*-violating phase of the B^0_s–$\bar{B}^0_s$ mixing amplitude is particularly promising since it is predicted to be very small in the standard model. A non-standard model enhancement of the phase also decreases the decay width difference between the light and heavy mass eigenstates of the B_s^0 meson, $\Delta\Gamma_s$. The time-evolution of the $B_s^0 \to J/\psi\phi$ decays where the flavor of the bottom-strange meson is identified at production is the most effective probe of the phase and of the width difference.

In 2010, CDF had just released the measurement based on a subsample of the available data. I've joined the small group that aimed at conducting the final update of the measurement using the whole data set. The crux of the measurement is a multivariate likelihood fit to the time-evolution of $B_s^0 \to J/\psi\phi$ decays that exploits advanced techniques for statistically separating the signal from backgrounds and distinguishing the *B* meson's flavor at production (neural networks, particle identification, flavor tag-

ging techniques, etc.). Along with another student I was the reference person in CDF for this analysis and I had control on each individual step of the work, from selection of the data and control samples, to generation of simulated samples, to development of the fit and the study of its features, to the final extraction of the results with their systematic uncertainties. We extended the previously-finalized analysis to a sample doubled in size and we introduced several improvements in the analysis technique, such as a new calibration of the tagging, and an original, accurate determination of previously-neglected physics background that mimic signal.

One of my specific tasks was the development of a previously-unavailable realistic simulation of the $B_s^0 \to J/\psi K^+K^-$ decays complete with the whole resonant substructure. This built confidence in the determination of the contamination from S-wave decays in the main analysis, which is important since discrepancies among experiments are observed for this quantity. Similarly, another specific responsibility I had was an auxiliary simultaneous fit of the K^+K^- and $J/\psi K^+K^-$ mass distributions to independently determine the S-wave fraction and check the main fit's result. In this study the full resonance structure of the $B^0 \to J/\psi K\pi$ decays is included for the first time and it contribute with a sizable background due to mis-identification of the pion as a kaon. The contamination from mis-identified B^0 decays is found to be significantly larger than typically derived assuming only P-wave B^0 decays and, if neglected, could mimic a larger K^+K^- S-wave component than present.

During this analysis, I was co-supervisor of the master student Lucia Grillo, who was in charge of validating the quality of the new data, studying the sample composition in terms of trigger selections and doing some control checks of the main fit result with the measurement of the $\Delta\Gamma_s$ assuming no CP violation.

I presented the preliminary results, approved in early 2012, at the 2012 Moriond QCD conference and at the 2012 ICHEP conference [A2, A1]. The results feature improved confidence intervals for the B_s^0 mixing phase that are second in precision only to LHCb and agree with the standard model expectation. The measurements of the B_s^0 lifetime, width difference, and polarization amplitudes are among the most precise available to date and show consistency with expectations and determinations from other experiments. A Letter documenting these results is published by *Physical Review Letters* [2].

During my PhD, I've served in CDF operations for a total of forty-five 8-hours shifts in the three-people crew of the control room directly responsible for the data acquisitions process and monitoring of the detector stability.

Teaching experience

May–Oct 2011 Co-supervisor of student Lucia Grillo (University of Trieste) on the master's degree thesis "Measurement of B_s^0 lifetime, decay width difference and polarization amplitudes of the $B_s^0 \to J/\psi\phi$ decays at CDF".

Jul–Aug 2010 Tutor of Fermilab summer student Gabriele Bertoli (University of Trieste) within the DOE/INFN Summer Exchange Program at Fermilab (USA).

Attended schools

XXI giornate di studio sui rivelatori May 10–13, 2011, Villa Gualino, Torino;

69th Scottish Universities Summer School in Physics Aug 19 – Sept 1, 2012, St. Andrews (United Kingdom).

Plan of studies

Introduzione ai metodi Bayesiani (Prof. E. Milotti), 16 hours;

Test sperimentali del Modello Standard (Dr. F. Cossutti), 16 hours;

Electroweack and Strong Interactions (Prof. S. Petcov and Prof. G. Martinelli, SISSA), 50 hours.

Conference talks

36th International Conference on High Energy Physics talk on *CDF results on CP violation in hadronic B decays*, Jul 4–11, 2012, Melbourne (Australia);

47th Rencontres de Moriond, QCD and High Energy Interactions talk on *Recent heavy flavor results from the Tevatron*, Mar 10–17, 2012, La Thuile (Italy);

13th International Conference on B-Physics at Hadron Machines talk on *Suppressed B_s^0 decays at CDF*, Apr 4–8, 2011, Amsterdam (The Netherlands);

6th International Workshop on the CKM Unitarity Triangle talk on *Charmless and Penguin Decays at CDF*, Sept 6–10, 2010, University of Warwick (United Kingdom);

45th Rencontres de Moriond, QCD and High Energy Interactions talk on *Measurements of the masses, lifetimes and decay modes of hadrons at Tevatron*, Mar 13–20, 2010, La Thuile (Italy).

Publications

As a member of the CDF Collaboration's default authors list I am co-author of about 90 papers (see http://inspirehep.net/search?p=author%3AM.Dorigo.1 for complete list). In the following, I list the ones for which I actively participated giving a direct contribution – public papers have been inserted in the U-GOV catalogue.

Journals Paper

[1] T. Aaltonen *et al.* (CDF Collaboration), *Measurement of Polarization and Search for CP Violation in* $B_s^0 \to \varphi\varphi$ *Decays*, Phys. Rev. Lett. **107**, 261802 (2011) [arXiv:1107.4999 (hep-ex)].

[2] T. Aaltonen *et al.* (CDF Collaboration), *Measurement of the Bottom-Strange Meson Mixing Phase in the Full CDF Data Set*, Phys. Rev. Lett. **109**, 171802 (2012) [arXiv:1208.2967 (hep-ex)].

Conference Proceedings

[A1] M. Dorigo (for the CDF Collaboration), *CDF results on CP violation in hadronic B decays*, (2012), in preparation, for the 36th International Conference on High Energy Physics.

[A2] M. Dorigo (for the CDF and D0 Collaborations), *Recent heavy flavor results from the Tevatron*, (2012) [arXiv:1205.3899 (hep-ex)], for the 47th Rencontres de Moriond, QCD and High Energy Interactions.

[A3] M. Dorigo (for the CDF Collaboration), *Suppressed* B_s^0 *Decays at CDF*, (2011) [arXiv:1105.4437 (hep-ex)], for the 13th International Conference on B-Physics at Hadron Machines.

[A4] M. Dorigo (for the CDF Collaboration), *Charmless and Penguin Decays at CDF*, (2010) [arXiv:1012.4738 (hep-ex)], for the 6th International Workshop on the CKM Unitarity Triangle.

[A5] M. Dorigo (for the CDF and D0 Collaborations), *Measurements of the masses, lifetimes and decay modes of hadrons at Tevatron*, (2010) [arXiv:1005.2564 (hep-ex)], for the 45th Rencontres de Moriond, QCD and High Energy Interactions.

CDF Public Note

[B1] M. Dorigo *et al.*, *Measurement of B_s^0 Mixing Phase in $B_s^0 \to J/\psi\phi$ Decays Using the Full Run II Data Sample*, CDF Note 10778 (2012).

[B2] M. Dorigo *et al.*, *Measurement of Triple Products Asymmetries of the $B_s^0 \to \phi\phi$ Decay*, CDF Note 10424 (2011).

[B3] M. Dorigo *et al.*, *Measurement of the Polarization Amplitudes of the $B_s^0 \to \phi\phi$ Decay*, CDF Note 10120 (2010).

CDF Internal Note

[C1] M. Dorigo *et al.*, *An Updated Measurement of the CP-Violating Phase β_s in 9.6 fb^{-1} of Data*, CDF Internal Note 10722 (2012).

[C2] M. Dorigo *et al.*, *Study of Triple Products in the $B_s^0 \to \phi\phi$ Decay*, CDF Internal Note 10416 (2011).

[C3] M. Dorigo *et al.*, *Measurement of the Polarization Amplitudes of the $B_s^0 \to \phi\phi$ Decay*, CDF Internal Note 10073 (2010).

Trieste, November 8, 2012

Ph.D. student: Damiana Montanino

Ph.D. School of Physics XXV Cycle (IV School Cycle)
End-of-cycle report

The research activity carried out during these years covers different sectors. During the first year it was focused on the characterization of minijets and minijet pairs as pattern of Multiple Parton Interactions (MPIs) in proton-proton collisions at LHC with the CMS detector. This process is believed to be of fundamental importance for the description of the hadron interactions and in particular for the comprehension of the Underlying Event, that describes the part of the event that cannot be directly attributed to the hardest parton-parton interaction. The parton level cross section predicts the maximum for transverse momenta tend to zero, therefore these phenomena are observed principally at low energy scale, where it is not possible to use the perturbative QCD in order to formulate theoretical predictions. Phenomenological models are needed for the description of these processes, which must be compared to the data in order to be checked and improved.

This study used the 900 GeV data collected by the CMS experiment in the 2010 and a part of those at 7 TeV, exploiting minijets (jets with very low transverse momenta) obtained by tracks, chosen due to the optimum resolution of the tracking system of CMS. A set of observables complementary to the ones used by the traditional analysis of the Underlying Event was studied, following analyses performed in the past by the UA1 Collaboration. The results obtained from the data were compared with different Monte Carlo samples in order to reject some models and understand which of them describe better the analysed events.

From the second year the doctoral activity was related to the study carried out in the thesis, the characterization of the associated production of a Z boson and jets (Z+jets) in proton-proton collisions at LHC with the CMS detector.

Initially a study of the calibration of the electromagnetic calorimeter (ECAL) of CMS was performed, as part of the activities to understand in detail the detector response. The problem taken into account was the energy containment. Given a photon that hits the calorimeter, the energy associated to the object is the one measured in a particular cluster (3×3 crystals). The fraction of energy not contained in the range was studied as a function of the energy and pseudo-rapidity of the photon in order to construct functions that could correct the results for this effect. This study was performed considering neutral pions (π^0) decaying in two photons and comparing the reconstructed energy with information from the Monte Carlo truth. Finally the obtained results were tested exploiting the reconstructed invariant mass of the boson pairs and comparing the variation of the peak of the distribution with the expected

value of π^0 mass.

A dedicated study regarding electrons was then carried on, in preparation for their use as signature for the Z boson selection. In the framework of the CMS analysis it is possible to use different algorithms to reconstruct the electrons, optimized in particular scenarios. Hence a point of particular interest was the choice of the electron reconstruction algorithm to consider.

The standard method gives origin to the set called GSF Electrons, and starts from the production of calorimeter deposits followed by the Gaussian Sum Filter (GSF) algorithm, a specialized reconstruction for tracks with sizable energy losses. The alternative method is based on Particle Flow algorithm, a global event description which uses the combined information provided by all CMS sub-detectors, as ECAL energy deposits or track segments, for an optimal determination of the direction, energy and type of all the stable particles in the event, as electrons, muons, photons, charged hadrons and neutral hadrons.

The results obtained with the two methods were analysed in order to evaluate the best procedure for the Z boson reconstruction. The electrons resulting with the different algorithm and with the Monte Carlo truth were compared. Also the Z boson obtained by the two kinds of electrons was taken into account, observing how the invariant mass varied in different conditions.

The remaining part of the doctoral activity was focused on the characterization of Z+jets events reconstructed in CMS; this analysis is part of a more general publication in course of preparation. This study provides an important Standard Model (SM) test, a detector commissioning ground through physics, and last but not least a powerful probe for new phenomena.

In the context of the SM, the study of jets produced in association with Z allows for tests of perturbative QCD (pQCD) calculations. The leading order (LO) and next-to-leading order (NLO) predictions are in good agreement with data, but the latter, available for Z+n jets, with n up to 4, are only known with a precision varying from 10% up to 30%, due to uncertainties on the parton distribution functions and on the perturbative nature of the calculations.

The Z+jets production is an important background in searches on supersymmetry, in Higgs and Dark Matter signatures, and for studies of the top quark. Many extensions of the SM predict new particles with electroweak couplings that decay into SM gauge bosons accompanied by jets.

This study used the 7 TeV data collected by the CMS experiment in the 2011 using jets and vector bosons detected through their decays into electron-positron pairs. The corresponding total integrated luminosity was estimated to be about 4.89 fb^{-1}.

The strategy for the selection of the events was to first look for a Z boson. The presence of a pair of well-identified and isolated high energy electrons was required as signature of the boson decay. In the analysis, several different observables were considered. The differential jet rate cross section was measured, as well as the transverse momentum p_T and pseudo-rapidity η distributions for the four highest transverse momentum jets. The distribution of the scalar sum of jet transverse momenta H_T was also measured as a function of the jet multiplicity.

Hence the jet reconstruction had a main role in the definition of the results. The

jets considered in the study were reconstructed using a sequential clustering algorithm. Quality cuts were applied to reduce the contamination from the underlying events and to provide good jet identification and good noise jet rejection.

The final distributions were obtained applying efficiency corrections and deconvolving the detector effects from the physics ones by means of the unfolding procedure. The associated systematic uncertainties represented an important aspect to deal with, and involved in particular the definition and the counting of jets. The dominant experimental uncertainties were caused by the jets energy corrections that could modify the measured number of these hadronic objects. Other important sources of systematics effects were given by the unfolding method, the evaluation of the efficiencies, the contribution from the pile-up and the background subtraction. The results were compared with pQCD theoretical predictions at leading order, extracted from two different models, Madgraph plus Pythia6 and Sherpa. An overall good agreement was globally found on all the analysed observables, considering the large uncertainties on the predictions due to the choice of the parton density functions and the scale of the interaction.

List of publications:

- **"Search for supersymmetry in final states with missing transverse energy and 0, 1, 2, or at least 3 b-quark jets in 7 TeV pp collisions using the variable alphaT"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.8115 [hep-ex]

- **"Search for a non-standard-model Higgs boson decaying to a pair of new light bosons in four-muon final states"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.7619 [hep-ex]

- **"Measurement of the sum of WW and WZ production with W+dijet events in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.7544 [hep-ex]

- **"Search for heavy quarks decaying into a top quark and a W or Z boson using lepton + jets events in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.7471 [hep-ex]

- **"Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.6718 [hep-ex]

- **"Search for pair production of third-generation leptoquarks and top squarks in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.5629 [hep-ex]

- **"Search for third-generation leptoquarks and scalar bottom quarks in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.5627 [hep-ex]

- **"Observation of long-range near-side angular correlations in proton-lead collisions at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.5482 [nucl-ex]

- **"Observation of Z decays to four leptons with the CMS detector at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.3844 [hep-ex]

- **"Search for excited leptons in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.2422 [hep-ex]

- **"Search for heavy neutrinos and W bosons with right-handed couplings in a left-right symmetric model in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.2402 [hep-ex]

- **"Search for fractionally charged particles in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.2311 [hep-ex]

- **"Search for supersymmetry in events with photons and low missing transverse energy in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.2052 [hep-ex]

- **"Search for heavy lepton partners of neutrinos in proton-proton collisions in the context of the type III seesaw mechanism"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.1797 [hep-ex]

- **"Measurement of the relative prompt production rate of chi(c2) and chi(c1) in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.0875 [hep-ex]

- **"Search for anomalous production of highly boosted *Z* bosons decaying to dimuons in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1210.0867 [hep-ex]

- **"Search for electroweak production of charginos and neutralinos using leptonic final states in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.6620 [hep-ex]

- **"Measurement of the single-top-quark t-channel cross section in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.4533 [hep-ex]

- **"Search for resonant $t\bar{t}$ production in lepton+jets events in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.4397 [hep-ex]

- **"Search for the standard model Higgs boson produced in association with W and Z bosons in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.3937 [hep-ex]

- **"Search for a narrow spin-2 resonance decaying to a pair of Z vector bosons in the semileptonic final state"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.3807 [hep-ex]

- **"Evidence for associated production of a single top quark and W boson in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.3489 [hep-ex]

- **"Measurement of the Y1S, Y2S and Y3S polarizations in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.2922 [hep-ex]

- **"Measurement of the top-quark mass in $t\bar{t}$ events with dilepton final states in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.2393 [hep-ex]

- **"Measurement of the top-quark mass in $t\bar{t}$ events with lepton+jets final states in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.2319 [hep-ex]

- **"Observation of a diffractive contribution to dijet production in proton-proton collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.1805 [hep-ex]

- **"Search for exclusive or semi-exclusive photon pair production and observation of exclusive and semi-exclusive electron pair production in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.1666 [hep-ex]

- **"Combined search for the quarks of a sequential fourth generation"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.1062 [hep-ex]

- **"Search for pair produced fourth-generation up-type quarks in *pp* collisions at $\sqrt{s} = 7$ TeV with a lepton in the final state"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1209.0471 [hep-ex]

- **"Search for supersymmetry in events with b-quark jets and missing transverse energy in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.4859 [hep-ex]

- **"Study of the dijet mass spectrum in $pp \to W+$ jets events at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.3477 [hep-ex]

- **"Search for three-jet resonances in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.2931 [hep-ex]

- **"Observation of sequential Upsilon suppression in PbPb collisions"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.2826 [nucl-ex]

- **"Measurement of the t t-bar production cross section in the dilepton channel in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.2671 [hep-ex]

- **"Measurement of the azimuthal anisotropy of neutral pions in PbPb collisions at sqrt(s(NN)) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.2470 [nucl-ex]

- **"Search for flavor changing neutral currents in top quark decays in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1208.0957 [hep-ex]

- **"Search for a W' boson decaying to a bottom quark and a top quark in pp collisions at sqrt(s) = 7 TeV"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1208.0956 [hep-ex]

- **"Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.7235 [hep-ex]
  10.1016/j.physletb.2012.08.021
  Phys. Lett. B **716**, 30 (2012)

- **"Search for heavy Majorana neutrinos in $\mu^+\mu^+[\mu^-\mu^-]$ and $e^+e^+[e^-e^-]$ events in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.6079 [hep-ex]
  10.1016/j.physletb.2012.09.012
  Phys. Lett. B **717**, 109 (2012)

- **"Search for pair production of first- and second-generation scalar leptoquarks in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.5406 [hep-ex]
  10.1103/PhysRevD.86.052013
  Phys. Rev. D **86**, 052013 (2012)

- **"Study of the inclusive production of charged pions, kaons, and protons in pp collisions at sqrt(s) = 0.9, 2.76, and 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.4724 [hep-ex]

- **"Forward-backward asymmetry of Drell-Yan lepton pairs in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.3973 [hep-ex]

- **"A search for a doubly-charged Higgs boson in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.2666 [hep-ex]

- **"Measurement of the underlying event activity in *pp* collisions at $\sqrt{s} =$ 0.9 and 7 TeV with the novel jet-area/median approach"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.2392 [hep-ex]
  10.1007/JHEP08(2012)130
  JHEP **1208**, 130 (2012)

- **"Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.1898 [hep-ex]

- **"Search for supersymmetry in hadronic final states using MT2 in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.1798 [hep-ex]
  10.1007/JHEP10(2012)018
  JHEP **1210**, 018 (2012)

- **"Search for a fermiophobic Higgs boson in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.1130 [hep-ex]
  10.1007/JHEP09(2012)111
  JHEP **1209**, 111 (2012)

- **"Search for new physics with long-lived particles decaying to photons and missing energy in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.0627 [hep-ex]

- **"Search for stopped long-lived particles produced in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.0106 [hep-ex]
  10.1007/JHEP08(2012)026
  JHEP **1208**, 026 (2012)

- **"Inclusive and differential measurements of the $t\bar{t}$ charge asymmetry in proton-proton collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1207.0065 [hep-ex]
  10.1016/j.physletb.2012.09.028
  Phys. Lett. B **717**, 129 (2012)

- **"Search for a light pseudoscalar Higgs boson in the dimuon decay channel in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.6326 [hep-ex]
  10.1103/PhysRevLett.109.121801
  Phys. Rev. Lett. **109**, 121801 (2012)

- **"Search for dark matter and large extra dimensions in monojet events in pp collisions at sqrt(s)= 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.5663 [hep-ex]
  10.1007/JHEP09(2012)094
  JHEP **1209**, 094 (2012)

- **"Performance of CMS muon reconstruction in pp collision events at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1206.4071 [physics.ins-det]
10.1088/1748-0221/7/10/P10002
JINST **7**, P10002 (2012)

- **"Search for new physics in events with opposite-sign leptons, jets, and missing transverse energy in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.3949 [hep-ex]

- **"Search for charge-asymmetric production of W' bosons in top pair + jet events from pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.3921 [hep-ex]
  10.1016/j.physletb.2012.09.048
  Phys. Lett. B **717**, 351 (2012)

- **"Measurement of the electron charge asymmetry in inclusive W production in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.2598 [hep-ex]
  10.1103/PhysRevLett.109.111806
  Phys. Rev. Lett. **109**, 111806 (2012)

- **"Search for narrow resonances in dilepton mass spectra in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.1849 [hep-ex]
  10.1016/j.physletb.2012.06.051
  Phys. Lett. B **714**, 158 (2012)

- **"Search for high mass resonances decaying into tau-lepton pairs in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.1725 [hep-ex]
  10.1016/j.physletb.2012.07.062
  Phys. Lett. B **716**, 82 (2012)

- **"Search for a W^t or Techni-ρ Decaying into WZ in pp Collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1206.0433 [hep-ex]
  10.1103/PhysRevLett.109.141801
  Phys. Rev. Lett. **109**, 141801 (2012)

- **"Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.6615 [hep-ex]
  10.1103/PhysRevLett.109.071803
  Phys. Rev. Lett. **109**, 071803 (2012)

- **"Study of W boson production in PbPb and pp collisions at sqrt(s[NN]) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.6334 [nucl-ex]
  10.1016/j.physletb.2012.07.025
  Phys. Lett. B **715**, 66 (2012)

- **"Measurement of jet fragmentation into charged particles in pp and PbPb collisions at sqrt(s[NN])= 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.5872 [nucl-ex]
  10.1007/JHEP10(2012)087
  JHEP **1210**, 087 (2012)

- **"Search for a light charged Higgs boson in top quark decays in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.5736 [hep-ex]
  10.1007/JHEP07(2012)143
  JHEP **1207**, 143 (2012)

- **"Search for new physics in events with same-sign dileptons and b-tagged jets in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.3933 [hep-ex]
  10.1007/JHEP08(2012)110
  JHEP **1208**, 110 (2012)

- **"Measurement of the pseudorapidity and centrality dependence of the transverse energy density in PbPb collisions at sqrt(s[NN]) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.2488 [nucl-ex]
  10.1103/PhysRevLett.109.152303
  Phys. Rev. Lett. **109**, 152303 (2012)

- **"Measurement of the Lambda(b) cross section and the anti-Lambda(b) to Lambda(b) ratio with Lambda(b) to J/Psi Lambda decays in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.0594 [hep-ex]
  10.1016/j.physletb.2012.05.063
  Phys. Lett. B **714**, 136 (2012)

- **"Search for heavy long-lived charged particles in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.0272 [hep-ex]
  10.1016/j.physletb.2012.06.023
  Phys. Lett. B **713**, 408 (2012)

- **"Studies of jet quenching using isolated-photon+jet correlations in PbPb and pp collisions at sqrt(s[NN]) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1205.0206 [nucl-ex]

- **"Observation of a new Xi(b) baryon"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.5955 [hep-ex]
  10.1103/PhysRevLett.108.252002
  Phys. Rev. Lett. **108**, 252002 (2012)

- **"Search for anomalous production of multilepton events in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.5341 [hep-ex]
  10.1007/JHEP06(2012)169
  JHEP **1206**, 169 (2012)

- **"Search for leptonic decays of W' bosons in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.4764 [hep-ex]
  10.1007/JHEP08(2012)023
  JHEP **1208**, 023 (2012)

- **"Search for physics beyond the standard model in events with a Z boson, jets, and missing transverse energy in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.3774 [hep-ex]
  10.1016/j.physletb.2012.08.026
  Phys. Lett. B **716**, 260 (2012)

- **"Shape, transverse size, and charged hadron multiplicity of jets in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.3170 [hep-ex]
  10.1007/JHEP06(2012)160
  JHEP **1206**, 160 (2012)

- **"Measurement of the mass difference between top and antitop quarks"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.2807 [hep-ex]
  10.1007/JHEP06(2012)109
  JHEP **1206**, 109 (2012)

- **"Search for anomalous t t-bar production in the highly-boosted all-hadronic final state"**
  S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1204.2488 [hep-ex]
10.1007/JHEP09(2012)029
JHEP **1209**, 029 (2012)

- **"Azimuthal anisotropy of charged particles at high transverse momenta in PbPb collisions at sqrt(s[NN]) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.1850 [nucl-ex]
  10.1103/PhysRevLett.109.022301
  Phys. Rev. Lett. **109**, 022301 (2012)

- **"Measurement of the Z/gamma*+b-jet cross section in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.1643 [hep-ex]
  10.1007/JHEP06(2012)126
  JHEP **1206**, 126 (2012)

- **"Measurement of the elliptic anisotropy of charged particles produced in PbPb collisions at nucleon-nucleon center-of-mass energy = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.1409 [nucl-ex]

- **"Measurement of the underlying event in the Drell-Yan process in proton-proton collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.1411 [hep-ex]
  10.1140/epjc/s10052-012-2080-4
  Eur. Phys. J. C **72**, 2080 (2012)

- **"Search for heavy bottom-like quarks in 4.9 inverse femtobarns of pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.1088 [hep-ex]
  10.1007/JHEP05(2012)123
  JHEP **1205**, 123 (2012)

- **"Search for Dark Matter and Large Extra Dimensions in pp Collisions Yielding a Photon and Missing Transverse Energy"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.0821 [hep-ex]
  10.1103/PhysRevLett.108.261803
  Phys. Rev. Lett. **108**, 261803 (2012)

- **"Ratios of dijet production cross sections as a function of the absolute difference in rapidity between jets in proton-proton collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1204.0696 [hep-ex]

- **"Measurement of the top quark pair production cross section in *pp* collisions at $\sqrt{s} = 7$ TeV in dilepton final states containing a τ"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1203.6810 [hep-ex]
  10.1103/PhysRevD.85.112007
  Phys. Rev. D **85**, 112007 (2012)

- **"Search for heavy, top-like quark pair production in the dilepton final state in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1203.5410 [hep-ex]
  10.1016/j.physletb.2012.07.059
  Phys. Lett. B **716**, 103 (2012)

- **"Search for $B_s^0 to \mu^+\mu^-$ and $B^0 to \mu^+\mu^-$ decays"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1203.3976 [hep-ex]
  10.1007/JHEP04(2012)033
  JHEP **1204**, 033 (2012)

- **"Measurement of the cross section for production of b b-bar X, decaying to muons in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1203.3458 [hep-ex]
  10.1007/JHEP06(2012)110
  JHEP **1206**, 110 (2012)

- **"Search for microscopic black holes in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.6396 [hep-ex]
  10.1007/JHEP04(2012)061
  JHEP **1204**, 061 (2012)

- **"Search for quark compositeness in dijet angular distributions from pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.5535 [hep-ex]
  10.1007/JHEP05(2012)055
  JHEP **1205**, 055 (2012)

- **"Jet momentum dependence of jet quenching in PbPb collisions at sqrt(sNN)=2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.5022 [nucl-ex]
  10.1016/j.physletb.2012.04.058
  Phys. Lett. B **712**, 176 (2012)

- **"Inclusive b-jet production in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1202.4617 [hep-ex]
10.1007/JHEP04(2012)084
JHEP **1204**, 084 (2012)

- **"Search for the standard model Higgs boson decaying to bottom quarks in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.4195 [hep-ex]
  10.1016/j.physletb.2012.02.085
  Phys. Lett. B **710**, 284 (2012)

- **"Search for neutral Higgs bosons decaying to tau pairs in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.4083 [hep-ex]
  10.1016/j.physletb.2012.05.028
  Phys. Lett. B **713**, 68 (2012)

- **"Search for large extra dimensions in dimuon and dielectron events in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.3827 [hep-ex]
  10.1016/j.physletb.2012.03.029
  Phys. Lett. B **711**, 15 (2012)

- **"Search for the standard model Higgs boson in the H to ZZ to 2l 2nu channel in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.3478 [hep-ex]
  10.1007/JHEP03(2012)040
  JHEP **1203**, 040 (2012)

- **"Search for the standard model Higgs boson in the H to ZZ to ll tau tau decay channel in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.3617 [hep-ex]
  10.1007/JHEP03(2012)081
  JHEP **1203**, 081 (2012)

- **"Study of high-pT charged particle suppression in PbPb compared to pp collisions at sqrt(sNN)=2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.2554 [nucl-ex]
  10.1140/epjc/s10052-012-1945-x
  Eur. Phys. J. C **72**, 1945 (2012)

- **"Search for the standard model Higgs boson in the decay channel H to ZZ to 4 leptons in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1202.1997 [hep-ex]
10.1103/PhysRevLett.108.111804
Phys. Rev. Lett. **108**, 111804 (2012)

- **"Search for the standard model Higgs boson decaying to a W pair in the fully leptonic final state in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.1489 [hep-ex]
  10.1016/j.physletb.2012.02.076
  Phys. Lett. B **710**, 91 (2012)

- **"Combined results of searches for the standard model Higgs boson in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.1488 [hep-ex]
  10.1016/j.physletb.2012.02.064
  Phys. Lett. B **710**, 26 (2012)

- **"Search for the standard model Higgs boson decaying into two photons in pp collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.1487 [hep-ex]
  10.1016/j.physletb.2012.03.003
  Phys. Lett. B **710**, 403 (2012)

- **"Search for a Higgs boson in the decay channel H to ZZ(*) to q qbar l-l+ in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.1416 [hep-ex]
  10.1007/JHEP04(2012)036
  JHEP **1204**, 036 (2012)

- **"Measurement of the inclusive production cross sections for forward jets and for dijet events with one forward and one central jet in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1202.0704 [hep-ex]
  10.1007/JHEP06(2012)036
  JHEP **1206**, 036 (2012)

- **"Suppression of non-prompt J/psi, prompt J/psi, and Y(1S) in PbPb collisions at sqrt(sNN) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1201.5069 [nucl-ex]
  10.1007/JHEP05(2012)063
  JHEP **1205**, 063 (2012)

- **"Centrality dependence of dihadron correlations and azimuthal anisotropy harmonics in PbPb collisions at sqrt(s[NN]) = 2.76 TeV"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1201.3158 [nucl-ex]
10.1140/epjc/s10052-012-2012-3
Eur. Phys. J. C **72**, 2012 (2012)

- **"Measurement of isolated photon production in pp and PbPb collisions at sqrt(sNN) = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1201.3093 [nucl-ex]
  10.1016/j.physletb.2012.02.077
  Phys. Lett. B **710**, 256 (2012)

- **"Measurement of the charge asymmetry in top-quark pair production in proton-proton collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1112.5100 [hep-ex]
  10.1016/j.physletb.2012.01.078
  Phys. Lett. B **709**, 28 (2012)

- **"Search for signatures of extra dimensions in the diphoton mass spectrum at the Large Hadron Collider"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1112.0688 [hep-ex]

- **"Exclusive photon-photon production of muon pairs in proton-proton collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1111.5536 [hep-ex]
  10.1007/JHEP01(2012)052
  JHEP **1201**, 052 (2012)

- **"J/psi and psi(2S) production in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1111.1557 [hep-ex]
  10.1007/JHEP02(2012)011
  JHEP **1202**, 011 (2012)

- **"Measurement of the Production Cross Section for Pairs of Isolated Photons in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.6461 [hep-ex]
  10.1007/JHEP01(2012)133
  JHEP **1201**, 133 (2012)

- **"Measurement of the Rapidity and Transverse Momentum Distributions of Z Bosons in pp Collisions at sqrt(s)=7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.4973 [hep-ex]
  10.1103/PhysRevD.85.032002
  Phys. Rev. D **85**, 032002 (2012)

- **"Jet Production Rates in Association with W and Z Bosons in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.3226 [hep-ex]
  10.1007/JHEP01(2012)010
  JHEP **1201**, 010 (2012)

- **"Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.2682 [hep-ex]
  10.1103/PhysRevD.84.112002
  Phys. Rev. D **84**, 112002 (2011)

- **"Measurement of energy flow at large pseudorapidities in *pp* collisions at $\sqrt{s} = 0.9$ and 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.0211 [hep-ex]
  10.1007/JHEP11(2011)148, 10.1007/JHEP02(2012)055
  JHEP **1111**, 148 (2011), [Erratum-ibid. **1202**, 055 (2012)]

- **"Forward Energy Flow, Central Charged-Particle Multiplicities, and Pseudorapidity Gaps in W and Z Boson Events from pp Collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1110.0181 [hep-ex]
  10.1140/epjc/s10052-011-1839-3
  Eur. Phys. J. C **72**, 1839 (2012)

- **"Performance of tau-lepton reconstruction and identification in CMS"**
  C. Collaboration *et al.* [CMS Collaboration].
  arXiv:1109.6034 [physics.ins-det]
  10.1088/1748-0221/7/01/P01001
  JINST **7**, P01001 (2012)

- **"Search for a Vector-like Quark with Charge 2/3 in t + Z Events from pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1109.4985 [hep-ex]
  10.1103/PhysRevLett.107.271802
  Phys. Rev. Lett. **107**, 271802 (2011)

- **"Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1109.2352 [hep-ex]
  10.1103/PhysRevLett.107.221804
  Phys. Rev. Lett. **107**, 221804 (2011)

- **"Measurement of the $t\bar{t}$ Production Cross Section in pp Collisions at 7 TeV in Lepton + Jets Events Using b-quark Jet Identification"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1108.3773 [hep-ex]
  10.1103/PhysRevD.84.092004
  Phys. Rev. D **84**, 092004 (2011)

- **"Measurement of the Differential Cross Section for Isolated Prompt Photon Production in pp Collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1108.2044 [hep-ex]
  10.1103/PhysRevD.84.052011
  Phys. Rev. D **84**, 052011 (2011)

- **"Measurement of the Drell-Yan Cross Section in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1108.0566 [hep-ex]
  10.1007/JHEP10(2011)007
  JHEP **1110**, 007 (2011)

- **"Search for B(s) and B to dimuon decays in pp collisions at 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.5834 [hep-ex]
  10.1103/PhysRevLett.107.191802
  Phys. Rev. Lett. **107**, 191802 (2011)

- **"Search for Resonances in the Dijet Mass Spectrum from 7 TeV pp Collisions at CMS"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.4771 [hep-ex]
  10.1016/j.physletb.2011.09.015
  Phys. Lett. B **704**, 123 (2011)

- **"Measurement of the Inclusive W and Z Production Cross Sections in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.4789 [hep-ex]
  10.1007/JHEP10(2011)132
  JHEP **1110**, 132 (2011)

- **"Dependence on pseudorapidity and centrality of charged hadron production in PbPb collisions at a nucleon-nucleon centre-of-mass energy of 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.4800 [nucl-ex]
  10.1007/JHEP08(2011)141
  JHEP **1108**, 141 (2011)

- **"Determination of Jet Energy Calibration and Transverse Momentum Resolution in CMS"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.4277 [physics.ins-det]
  10.1088/1748-0221/6/11/P11002
  JINST **6**, P11002 (2011)

- **"Search for Three-Jet Resonances in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.3084 [hep-ex]
  10.1103/PhysRevLett.107.101801
  Phys. Rev. Lett. **107**, 101801 (2011)

- **"Search for supersymmetry in pp collisions at sqrt(s)=7 TeV in events with a single lepton, jets, and missing transverse momentum"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.1870 [hep-ex]
  10.1007/JHEP08(2011)156
  JHEP **1108**, 156 (2011)

- **"A search for excited leptons in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.1773 [hep-ex]
  10.1016/j.physletb.2011.09.021
  Phys. Lett. B **704**, 143 (2011)

- **"Inclusive search for squarks and gluinos in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.1279 [hep-ex]
  10.1103/PhysRevD.85.012004
  Phys. Rev. D **85**, 012004 (2012)

- **"Measurement of the Underlying Event Activity at the LHC with $\sqrt{s}$ = 7 TeV and Comparison with $\sqrt{s}$ = 0.9 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1107.0330 [hep-ex]
  10.1007/JHEP09(2011)109
  JHEP **1109**, 109 (2011)

- **"Missing transverse energy performance of the CMS detector"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.5048 [physics.ins-det]
  10.1088/1748-0221/6/09/P09001
  JINST **6**, P09001 (2011)

- **"Search for New Physics with a Mono-Jet and Missing Transverse Energy in *pp* Collisions at $\sqrt{s}$ = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].

arXiv:1106.4775 [hep-ex]
10.1103/PhysRevLett.107.201804
Phys. Rev. Lett. **107**, 201804 (2011)

- **"Search for New Physics with Jets and Missing Transverse Momentum in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.4503 [hep-ex]
  10.1007/JHEP08(2011)155
  JHEP **1108**, 155 (2011)

- **"Measurement of the Strange B Meson Production Cross Section with J/Psi phi Decays in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.4048 [hep-ex]
  10.1103/PhysRevD.84.052008
  Phys. Rev. D **84**, 052008 (2011)

- **"Search for Supersymmetry in Events with b Jets and Missing Transverse Momentum at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.3272 [hep-ex]
  10.1007/JHEP07(2011)113
  JHEP **1107**, 113 (2011)

- **"Measurement of the t-channel single top quark production cross section in pp collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.3052 [hep-ex]
  10.1103/PhysRevLett.107.091802
  Phys. Rev. Lett. **107**, 091802 (2011)

- **"Search for Light Resonances Decaying into Pairs of Muons as a Signal of New Physics"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.2375 [hep-ex]
  10.1007/JHEP07(2011)098
  JHEP **1107**, 098 (2011)

- **"Search for Same-Sign Top-Quark Pair Production at sqrt(s) = 7 TeV and Limits on Flavour Changing Neutral Currents in the Top Sector"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1106.2142 [hep-ex]
  10.1007/JHEP08(2011)005
  JHEP **1108**, 005 (2011)

- **"Measurement of the Top-antitop Production Cross Section in *pp* Collisions at $\sqrt{s} = 7$ TeV using the Kinematic Properties of Events with Leptons and Jets"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1106.0902 [hep-ex]
10.1140/epjc/s10052-011-1721-3
Eur. Phys. J. C **71**, 1721 (2011)

- **"Search for Physics Beyond the Standard Model Using Multilepton Signatures in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1106.0933 [hep-ex]
10.1016/j.physletb.2011.09.047
Phys. Lett. B **704**, 411 (2011)

- **"Measurement of the Ratio of the 3-jet to 2-jet Cross Sections in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1106.0647 [hep-ex]
10.1016/j.physletb.2011.07.067
Phys. Lett. B **702**, 336 (2011)

- **"Measurement of the Inclusive Jet Cross Section in pp Collisions at sqrt(s) = 7 TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1106.0208 [hep-ex]
10.1103/PhysRevLett.107.132001
Phys. Rev. Lett. **107**, 132001 (2011)

- **"Measurement of the t t-bar production cross section and the top quark mass in the dilepton channel in pp collisions at sqrt(s) =7 TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1105.5661 [hep-ex]
10.1007/JHEP07(2011)049
JHEP **1107**, 049 (2011)

- **"Search for First Generation Scalar Leptoquarks in the evjj channel in pp collisions at sqrt(s) = 7 TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1105.5237 [hep-ex]
10.1016/j.physletb.2011.07.089
Phys. Lett. B **703**, 246 (2011)

- **"Indications of suppression of excited Υ states in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1105.4894 [nucl-ex]
10.1103/PhysRevLett.107.052302
Phys. Rev. Lett. **107**, 052302 (2011)

- **"Search for supersymmetry in events with a lepton, a photon, and large missing transverse energy in *pp* collisions at $\sqrt{s} = 7$ TeV"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1105.3152 [hep-ex]
10.1007/JHEP06(2011)093
JHEP **1106**, 093 (2011)

- **"Measurement of $W\gamma$ and $Z\gamma$ production in pp collisions at $\sqrt{s} = 7$ TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1105.2758 [hep-ex]
  10.1016/j.physletb.2011.06.034
  Phys. Lett. B **701**, 535 (2011)

- **"Long-range and short-range dihadron angular correlations in central PbPb collisions at a nucleon-nucleon center of mass energy of 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1105.2438 [nucl-ex]
  10.1007/JHEP07(2011)076
  JHEP **1107**, 076 (2011)

- **"Charged particle transverse momentum spectra in pp collisions at $\sqrt{s} = 0.9$ and 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1104.3547 [hep-ex]
  10.1007/JHEP08(2011)086
  JHEP **1108**, 086 (2011)

- **"Measurement of the Polarization of W Bosons with Large Transverse Momenta in W+Jets Events at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1104.3829 [hep-ex]
  10.1103/PhysRevLett.107.021802
  Phys. Rev. Lett. **107**, 021802 (2011)

- **"Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy at the LHC"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1104.3168 [hep-ex]
  10.1007/JHEP06(2011)077
  JHEP **1106**, 077 (2011)

- **"Measurement of the B0 production cross section in pp Collisions at sqrt(s) = 7 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1104.2892 [hep-ex]
  10.1103/PhysRevLett.106.252001
  Phys. Rev. Lett. **106**, 252001 (2011)

- **"Measurement of the differential dijet production cross section in proton-proton collisions at $\sqrt{s} = 7$ TeV"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1104.1693 [hep-ex]
10.1016/j.physletb.2011.05.027
Phys. Lett. B **700**, 187 (2011)

- **"Measurement of the Inclusive Z Cross Section via Decays to Tau Pairs in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1104.1617 [hep-ex]
10.1007/JHEP08(2011)117
JHEP **1108**, 117 (2011)

- **"Search for Neutral MSSM Higgs Bosons Decaying to Tau Pairs in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1104.1619 [hep-ex]
10.1103/PhysRevLett.106.231801
Phys. Rev. Lett. **106**, 231801 (2011)

- **"Search for Large Extra Dimensions in the Diphoton Final State at the Large Hadron Collider"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.4279 [hep-ex]
10.1007/JHEP05(2011)085
JHEP **1105**, 085 (2011)

- **"Measurement of the lepton charge asymmetry in inclusive *W* production in pp collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.3470 [hep-ex]
10.1007/JHEP04(2011)050
JHEP **1104**, 050 (2011)

- **"Search for Physics Beyond the Standard Model in Opposite-Sign Dilepton Events at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.1348 [hep-ex]
10.1007/JHEP06(2011)026
JHEP **1106**, 026 (2011)

- **"Search for Supersymmetry in *pp* Collisions at $\sqrt{s} = 7$ TeV in Events with Two Photons and Missing Transverse Energy"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.0953 [hep-ex]
10.1103/PhysRevLett.106.211802
Phys. Rev. Lett. **106**, 211802 (2011)

- **"Search for Resonances in the Dilepton Mass Distribution in *pp* Collisions at $(s) = 7$ TeV"**

S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.0981 [hep-ex]
10.1007/JHEP05(2011)093
JHEP **1105**, 093 (2011)

- **"Search for a W' boson decaying to a muon and a neutrino in pp collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1103.0030 [hep-ex]
10.1016/j.physletb.2011.05.048
Phys. Lett. B **701**, 160 (2011)

- **"Measurement of W+W- Production and Search for the Higgs Boson in pp Collisions at sqrt(s) = 7 TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1102.5429 [hep-ex]
10.1016/j.physletb.2011.03.056
Phys. Lett. B **699**, 25 (2011)

- **"Study of Z boson production in PbPb collisions at nucleon-nucleon centre of mass energy = 2.76 TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1102.5435 [nucl-ex]
10.1103/PhysRevLett.106.212301
Phys. Rev. Lett. **106**, 212301 (2011)

- **"Search for a Heavy Bottom-like Quark in pp Collisions at $\sqrt{s} = 7$ TeV"**
S. Chatrchyan *et al.* [CMS Collaboration].
arXiv:1102.4746 [hep-ex]
10.1016/j.physletb.2011.05.074
Phys. Lett. B **701**, 204 (2011)

- **"Strange Particle Production in pp Collisions at sqrt(s) = 0.9 and 7 TeV"**
V. Khachatryan *et al.* [CMS Collaboration].
arXiv:1102.4282 [hep-ex]
10.1007/JHEP05(2011)064
JHEP **1105**, 064 (2011)

- **"Measurement of $B\bar{B}$ Angular Correlations based on Secondary Vertex Reconstruction at $\sqrt{s} = 7$ TeV"**
V. Khachatryan *et al.* [CMS Collaboration].
arXiv:1102.3194 [hep-ex]
10.1007/JHEP03(2011)136
JHEP **1103**, 136 (2011)

- **"Measurement of Dijet Angular Distributions and Search for Quark Compositeness in pp Collisions at** *sqrts* **= 7 TeV"**
V. Khachatryan *et al.* [CMS Collaboration].

arXiv:1102.2020 [hep-ex]
10.1103/PhysRevLett.106.201804
Phys. Rev. Lett. **106**, 201804 (2011)

- **"Observation and studies of jet quenching in PbPb collisions at nucleon-nucleon center-of-mass energy = 2.76 TeV"**
  S. Chatrchyan *et al.* [CMS Collaboration].
  arXiv:1102.1957 [nucl-ex]
  10.1103/PhysRevC.84.024906
  Phys. Rev. C **84**, 024906 (2011)

- **"First Measurement of Hadronic Event Shapes in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1102.0068 [hep-ex]
  10.1016/j.physletb.2011.03.060
  Phys. Lett. B **699**, 48 (2011)

- **"Dijet Azimuthal Decorrelations in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.5029 [hep-ex]
  10.1103/PhysRevLett.106.122003
  Phys. Rev. Lett. **106**, 122003 (2011)

- **"Inclusive b-hadron production cross section with muons in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.3512 [hep-ex]
  10.1007/JHEP03(2011)090
  JHEP **1103**, 090 (2011)

- **"Measurement of Bose-Einstein Correlations in *pp* Collisions at $\sqrt{s} =$ 0.9 and 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.3518 [hep-ex]
  10.1007/JHEP05(2011)029
  JHEP **1105**, 029 (2011)

- **"Search for Supersymmetry in pp Collisions at 7 TeV in Events with Jets and Missing Transverse Energy"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.1628 [hep-ex]
  10.1016/j.physletb.2011.03.021
  Phys. Lett. B **698**, 196 (2011)

- **"Search for Heavy Stable Charged Particles in pp collisions at sqrt(s)=7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.1645 [hep-ex]

10.1007/JHEP03(2011)024
JHEP **1103**, 024 (2011)

- **"Measurement of the B^+ Production Cross Section in pp Collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1101.0131 [hep-ex]
  10.1103/PhysRevLett.106.112001
  Phys. Rev. Lett. **106**, 112001 (2011)

- **"Search for a heavy gauge boson W' in the final state with an electron and large missing transverse energy in pp collisions at sqrt(s) = 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.5945 [hep-ex]
  10.1016/j.physletb.2011.02.048
  Phys. Lett. B **698**, 21 (2011)

- **"Measurement of the Inclusive Upsilon production cross section in pp collisions at sqrt(s)=7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.5545 [hep-ex]
  10.1103/PhysRevD.83.112004
  Phys. Rev. D **83**, 112004 (2011)

- **"Search for Pair Production of First-Generation Scalar Leptoquarks in pp Collisions at sqrt(s) = 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.4031 [hep-ex]
  10.1103/PhysRevLett.106.201802
  Phys. Rev. Lett. **106**, 201802 (2011)

- **"Search for Pair Production of Second-Generation Scalar Leptoquarks in pp Collisions at sqrt(s) = 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.4033 [hep-ex]
  10.1103/PhysRevLett.106.201803
  Phys. Rev. Lett. **106**, 201803 (2011)

- **"Search for Microscopic Black Hole Signatures at the Large Hadron Collider"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.3375 [hep-ex]
  10.1016/j.physletb.2011.02.032
  Phys. Lett. B **697**, 434 (2011)

- **"Measurements of Inclusive W and Z Cross Sections in pp Collisions at sqrt(s)=7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.2466 [hep-ex]

10.1007/JHEP01(2011)080
JHEP **1101**, 080 (2011)

- **"Measurement of the Isolated Prompt Photon Production Cross Section in *pp* Collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1012.0799 [hep-ex]
  10.1103/PhysRevLett.106.082001
  Phys. Rev. Lett. **106**, 082001 (2011)

- **"Charged particle multiplicities in pp interactions at sqrt(s) = 0.9, 2.36, and 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1011.5531 [hep-ex]
  10.1007/JHEP01(2011)079
  JHEP **1101**, 079 (2011)

- **"Search for Stopped Gluinos in *pp* collisions at $\sqrt{s} = 7$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1011.5861 [hep-ex]
  10.1103/PhysRevLett.106.011801
  Phys. Rev. Lett. **106**, 011801 (2011)

- **"Prompt and non-prompt J/psi production in pp collisions at sqrt(s) = 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1011.4193 [hep-ex]
  10.1140/epjc/s10052-011-1575-8
  Eur. Phys. J. C **71**, 1575 (2011)

- **"First Measurement of the Cross Section for Top-Quark Pair Production in Proton-Proton Collisions at sqrt(s)=7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1010.5994 [hep-ex]
  10.1016/j.physletb.2010.11.058
  Phys. Lett. B **695**, 424 (2011)

- **"Search for Quark Compositeness with the Dijet Centrality Ratio in pp Collisions at sqrt(s)=7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1010.4439 [hep-ex]
  10.1103/PhysRevLett.105.262001
  Phys. Rev. Lett. **105**, 262001 (2010)

- **"Search for Dijet Resonances in 7 TeV pp Collisions at CMS"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1010.0203 [hep-ex]
  10.1103/PhysRevLett.105.211801, 10.1103/PhysRevLett.106.029902
  Phys. Rev. Lett. **105**, 211801 (2010)

- **"Observation of Long-Range Near-Side Angular Correlations in Proton-Proton Collisions at the LHC"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1009.4122 [hep-ex]
  10.1007/JHEP09(2010)091
  JHEP **1009**, 091 (2010)

- **"CMS Tracking Performance Results from early LHC Operation"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1007.1988 [physics.ins-det]
  10.1140/epjc/s10052-010-1491-3
  Eur. Phys. J. C **70**, 1165 (2010)

- **"First Measurement of the Underlying Event Activity at the LHC with $\sqrt{s} = 0.9$ TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1006.2083 [hep-ex]
  10.1140/epjc/s10052-010-1453-9
  Eur. Phys. J. C **70**, 555 (2010)

- **"Measurement of the charge ratio of atmospheric muons with the CMS detector"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1005.5332 [hep-ex]
  10.1016/j.physletb.2010.07.033
  Phys. Lett. B **692**, 83 (2010)

- **"Measurement of Bose-Einstein correlations with first CMS data"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1005.3294 [hep-ex]
  10.1103/PhysRevLett.105.032001
  Phys. Rev. Lett. **105**, 032001 (2010)

- **"Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at sqrt(s) = 7 TeV"**
  V. Khachatryan *et al.* [CMS Collaboration].
  arXiv:1005.3299 [hep-ex]
  10.1103/PhysRevLett.105.022002
  Phys. Rev. Lett. **105**, 022002 (2010)

PhD Student: Ramona Lea

XXV Ciclo di Dottorato – IV Ciclo delle Scuole

End of cycle report

During my PhD I've worked within the Trieste group of the ALICE experiment. ALICE (A Large Ion Collider Experiment) is an experiment presently being performed at LHC (Large Hadron Collider) at CERN which studies a wide range of physics topics by colliding ultra relativistic heavy ions as well as protons.

The topic of my thesis is the study of the production of light hypernuclei in ultra-relativistic heavy-ion collisions at $\sqrt{s_{NN}} = 2.76$ TeV.

Ultra relativistic heavy-ion collisions offer a unique opportunity for understanding the strong interaction of strange hadrons. In the collision a huge number of strange hadrons is produced and the s quark created during the collision carries information of the initial system.

In this context hyperons interactions are key to understand the phase structure of QCD at large densities and the interior of compact stars.

In the heavy-ion collision hyperon-baryon bound systems, called hypernuclei, can be produced. Hypernuclear physics offers a direct experimental way to study hyperon-nucleon (YN) and hyperon-hyperon (YY) interactions.

It is possible to discriminate two distinct mechanisms for hypercluster formation in heavy ion collisions. First, the absorption of hyperons in the spectator fragments of non central heavy ion collisions; alternatively, they can emerge from the hot and dense fireball region of the reaction. In this scenario the cluster is formed at, or shortly after,the (chemical-)freeze out of the system. According to thermal and coalescence models, (anti)(hyper)nuclei production scales with A, so systems with A=3 are predicted to be the most probable to be produced in ultra relativistic heavy-ion collisions.

The hypertriton, $^3_{\Lambda}H$, is the lightest known hypernucleus and is formed by a proton, a neutron and a Λ. $^3_{\Lambda}H$ decays mesonically into the following channels:

(1) $^3_{\Lambda}H \rightarrow {}^3He + \pi^-$
(2) $^3_{\Lambda}H \rightarrow {}^3H + \pi^0$
(3) $^3_{\Lambda}H \rightarrow d + p + \pi^-$
(4) $^3_{\Lambda}H \rightarrow d + n + \pi^0$

The study of the production of $^3_{\Lambda}H(^3_{\Lambda}\overline{H})$ detected via its decay $^3_{\Lambda}H \rightarrow {}^3He + \pi^-$ ($^3_{\Lambda}\overline{H} \rightarrow {}^3\overline{He} + \pi^+$) using ALICE is the main topic presented in my thesis.

The study presented in the thesis is based on the statistics collected by the ALICE experiment during 2010 and 2011 data taking. The 2010 statistics is composed of about 14 millions of

minimum-bias[1] events, while the 2011 statistics is composed by 22 million of central[2], 20 million of semi-central[3] and about 1.5 million on minimum bias events.

The main detector used in the analysis is the Time Projection Chamber (TPC) of ALICE. The ALICE TPC is the main detector used for global tracking and allows the particle identification via the specific energy loss (dE/dx).

First of all, I have studied the particle identification using the specific energy loss (dE/dx). Both daughter tracks of $^3_\Lambda$H($^3_\Lambda\bar{\text{H}}$) (i.e., pion and helium-3), can be clearly identified using the TPC. Once the daughter tracks have been identified, it was possible to reconstruct the hypertriton signal candidates by identifying secondary vertices.

Signal extraction is based on the study of the invariant mass spectrum of (^{3}He,π^-)($^3\bar{\text{He}}$,π^+). In the analysis two types of background have been studied. The first one is the "like - sign" method which consists in the combination of two tracks with the same sign (i.e. [^{3}He + π^+]or [$^3\bar{\text{He}}$ + π^-]), and the second is the combined fit (third degree polynomial function for the background and a Gaussian for the signal) of the invariant mass spectrum. From the invariant mass spectrum fit it is possible to extract mean μ, width σ, raw yield and significance of the signal.

The efficiency evaluation is based on the study of Monte Carlo productions "anchored" to the data by using Hjiing (a heavy-ion simulator) with hypertriton signal injected.

I have been responsible of the introduction of hypernuclei in the AliRoot framework, and I took care of the quality checks of those Monte Carlo simulations.

I have studied the (anti)hypertrion efficiency estimation as a function of several variables, like the transverse momentum, the proper lifetime, the momentum of the daughters tracks and the pseudorapidity of the ($^3\bar{\text{H}}$)$^3_\Lambda$H, and I made several systematics studies.

To extract the 2010 and 2011 yield I have studied two different procedures. 2010 statistics allows to extract only an integrated p_T yield: the method used to extract the corrected yield is based on two 2-d histograms (Invariant Mass vs p_T) for Signal+Background (^{3}He + π^-)(S+B) and Background (^{3}He + π^+, Like-Sign background)(B). By their subtraction ((S+B)-B) is possible to get the Signal (S). Correcting the S histogram for p_T efficiency will provide the integrated yield.

2011 statistics allow to divide the $^3_\Lambda$H invariant mass spectrum in 3 p_T bins ([2-4],[4-6] and [6-10] GeV/c) and the acceptance correction analysis can be performed directly on the signal.

Each p_T bin is corrected for the corresponding efficiency so it has been possible to obtain a spectrum vs p_T.

The same analysis have be performed separating $^3_\Lambda$H from $^3_\Lambda\bar{\text{H}}$. The two spectra show a similar yield for $^3_\Lambda$H and $^3_\Lambda\bar{\text{H}}$.

---

1 Minimum-bias events have a centrality between 0 and 100 %

2 Central events have a centrality between 0 and 10 %

3 Semi-central events have a centrality between 10 and 70 %

To evaluate the strangeness population factor [$S_3=(^3{}_\Lambda H + {}^3\bar{H})/(^3He+ {}^3\bar{He}) / (\Lambda/p)$], which is a good representation of the local correlation between baryon number and strangeness, the study of the ^3He ($^3\bar{He}$) yield is needed. I have evaluate the corrected yield by using the 2011 data and I studied the related systematic errors.

Using the 2011 data set has also been possible to extract the lifetime of ${}^3_\Lambda H$. The total invariant mass spectrum has been divided into 3 c¿ bins and an estimation on the ${}^3_\Lambda H$ mean lifetime has been provided.

I have reported regularly the results of my work during the Physics Analysis Group (PAG) meeting dedicated to Strangeness held every week at CERN, and during Physics Working Group (PWG) meeting, held every month at CERN. Results have also being reported during the ALICE Physics Week held in Jyvaskyla, (Finland, 29th August – 2nd September 2011).
In addition, the results have been reported in three international conferences:

- Strangeness in Quark Matter (SMQ2011) – Cracow, Poland, 18th -24th September 2011;
- 2nd European Nuclear Physics Conference (EunPC) - Bucharest, Romania , 17th -21th September 2012;
- XI International Conference on Hypernuclear - Barcelona, Spain, 1st– 5th October, 2012 ;

and at the

- XCVII Congress of the Italian Society of Physics (SIF) - L'Aquila (26th – 29th September 2011).

During the 2011 Pb-Pb data taking, I joined the ITS QA Task Force, a special group of analysis formed to check in "real time" reconstructed data and I've written some tasks useful for Quality Assurance (QA) analysis. I have took several QA shift, reporting the results during the weekly ALICE-QA meetings.

Plan of studies

Attended Courses:

- F. Cossutti (INFN), Test sperimentali del Modello Standard, 16 ore
- P. Camerini, Fisica sperimentale con Kaoni di bassa energia, 12 ore
- S. Dalla Torre (INFN), Rivelatori a gas di particelle ionizzanti e rivelatori RICH, 15 ore
- V. Bonvicini (INFN), Rivelatori al silicio ed elettronica di lettura, 16 ore.
- E. Milotti, Introduzioni ai metodi Bayesiani, 16 ore
- P. Schiavon, Metodi di fit e filtro di Kalman, 10 ore.

Passed Exams:

- S. Dalla Torre (INFN), Rivelatori a gas di particelle ionizzanti e rivelatori RICH (Oral exam);
- A. Milotti, Introduzione ai metodi Bayesiani (Seminar);
- P. Camerini, Fisica sperimentale con Kaoni di bassa energia (Seminar and oral exam);
- F. Cossutti (INFN), Test sperimentali del Modello Standard (Seminar and oral exam);
- V. Bonvicini (INFN), Rivelatori al silicio ed elettronica di lettura (Seminar and oral exam);
- P. Schiavon, Metodi di fit e filtro di Kalman (Oral exam).

Attended PhD Schools:

- XX Giornate di studio sui rivelatori, Centro congressi di Villa Gualino, Torino, 23-26 February 2010;
- VII Seminario sul Software per la fisica Nucleare, Subnucleare e Applicata, Alghero, 31 May - 4 June 2010;
- 4th Summer School on Physics of LHC School: Theoretical and Experimental Aspects, Martignano (Lecce), 14-19 June 2010;
- IV scuola per utenti INFN della GRID, INFN-CNAF Bologna 21-24 February 2011.

Attended conferences

- Strangeness in Quark Matter, 18-24 September 2011 Polish Academy of Arts and Sciences, Cracow, Poland;
- XCVII Congresso Nazionale Società Italiana di Fisica, L'Aquila 26-30 Settembre 2011;
- 2nd European Nuclear Physics Conference (EunPC) - Bucharest, Romania , 17th -21th September 2012;
- XI International Conference on Hypernuclear - Barcelona, Spain, 1st– 5th October, 2012 ;

Publications

- Hypernuclei Production in Pb–Pb Collisions at $\sqrt{s_{NN}}$=2.76 TeV with ALICE at LHC.
  Ramona Lea for the ALICE Collaboration.
  Proceedings of the conference HYP2012, Barcelona Spain.

- Light Hypernuclei Production in Pb–Pb Collisions at $\sqrt{s_{NN}}$=2.76 TeV with ALICE at LHC.
  Ramona Lea for the ALICE Collaboration.
  Proceedings of the conference SQM2011, Cracow, Poland.
  Acta Physica Polonica B Proceedings Supplement vol. 5 (2012) page 599

- Neutral pion and ´ meson production in proton-proton collisions at $\sqrt{s}$ = 0.9 TeV and 7 TeV.
  ALICE Collaboration, Physics Letters B717 (2012), pp. 162-172.

- Harmonic decomposition of two-particle angular correlations in Pb-Pb collisions at $\sqrt{s_{NN}}$ = 2.76 TeV.
  ALICE Collaboration, Physics Letters B708 (2012), pp. 249-264.

- Underlying Event measurements in pp collisions at $\sqrt{s}$ = 0.9 and 7 TeV with the ALICE experiment at the LHC.
  ALICE Collaboration, JHEP 1207 (2012), pp. 116.

- Light vector meson production in pp collisions at $\sqrt{s}$ = 7 TeV.
  ALICE Collaboration, Physics Letters B710 (2012), pp. 557-568.

- Particle-yield modification in jet-like azimuthal di-hadron correlations in Pb-Pb collisions at $\sqrt{s_{NN}}$ = 2.76 TeV.
  ALICE Collaboration, Physics Review Letters 108, 092301 (2012).

- J/psi polarization in pp collisions at $\sqrt{s}$=7 TeV.
  ALICE Collaboration, Physics Review Letters 108 (2012) 082001.

- Measurement of charm production at central rapidity in proton-proton collisions at $\sqrt{s}$ = 7 TeV.
  ALICE Collaboration, JHEP 01 (2012) 128.

- Femtoscopy of pp collisions at $\sqrt{s}$=0.9 and 7 TeV at the LHC with two-pion Bose-Einstein correlations.
  ALICE Collaboration, Physics Review D 84, 112004 (2011).

- Transverse sphericity of primary charged particles in minimum bias proton-proton collisions at $\sqrt{s}$=0.9, 2.76 and 7 TeV.
  ALICE Collaboration, Eur. Phys. J. C (2012) 72:2124.

- K^0s-K^0s correlations in 7 TeV pp collisions from the LHC ALICE experiment.
  ALICE Collaboration, Physics Letters B 717 (2012) pp. 151-161

- Measurement of charm production at central rapidity in proton - proton collisions at $\sqrt{s}$ = 2.76 TeV.
  ALICE Collaboration, JHEP 01 (2012) 128.

- Production of muons from heavy flavour decays at forward rapidity in pp and Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, Physics Review Letters 109, 112301 (2012).

- Suppression of high transverse momentum prompt D mesons in central Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, JHEP 9 (2012) 112.

- Multi-strange baryon production in pp collisions at $\sqrt{s} = 7$ TeV with ALICE.
  ALICE Collaboration, Physics Letters B 712 (2012) 309.

- J/psi Production as a Function of Charged Particle Multiplicity in pp Collisions at $\sqrt{s} = 7$ TeV.
  ALICE Collaboration, Physics Letters B712 (2012) 165-175.

- J/psi suppression at forward rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, Physics Letters 109, 072301 (2012).

- Measurement of Event Background Fluctuations for Charged Particle Jet Reconstruction in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, JHEP 03 (2012) 053.

- Heavy flavour decay muon production at forward rapidity in proton-proton collisions at $\sqrt{s} = 7$ TeV.
  ALICE Collaboration, Physics Letters B 708 (2012) 265.

- Production of pions, kaons and protons in pp collisions at $\sqrt{s} = 900$ GeV with ALICE at the LHC.
  ALICE Collaboration, Eur.Phys.J.C 71(6): 1655, 2011

- Higher harmonic anisotropic flow measurements of charged particles in Pb-Pb collisions at 2.76 TeV.
  ALICE Collaboration, Physics Review Letters 107, 032301 (2011).

- Strange particle production in proton-proton collisions at $\sqrt{s} = 0.9$ TeV with ALICE at the LHC.
  ALICE Collaboration, Eur. Phys. J. C 71 (3), 1594 (2011).

- Two-pion Bose-Einstein correlations in central Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, Physics Letters B696 (4): 328-337, 2011.

- Centrality dependence of the charged-particle multiplicity density at mid-rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, Phys. Rev. Lett. 106, 032301 (2011).

- Elliptic flow of charged particles in Pb-Pb collisions at 2.76 TeV.
  ALICE Collaboration, Phys. Rev. Lett. 105, 252302 (2010).

- Suppression of Charged Particle Production at Large Transverse Momentum in Central Pb-Pb Collisions at $\sqrt{s_{NN}} = 2.76$ TeV.

ALICE Collaboration, Phys. Lett. B 696 (2011) 30-39

- Charged-particle multiplicity density at mid-rapidity in central Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV.
  ALICE Collaboration, Phys. Rev. Lett. 105, 252301 (2010).

Trieste, 09/12/12

Il dottorando
Ramona Lea

Il Responsabile
Prof. Paolo Camerini

Student : LOPEZ, Frances Caroline M.
CYCLE : XXV
Supervisor : Prof. Longo, Renata

In the period of the PhD program, the student was involved with the development of a new read-out system of the PICASSO (Phase Imaging for Clinical Application with Silicon detector and Synchrotron radiatiOn) in collaboration with SYRMEP group coming from the University of Trieste, Instituto Nazionale di Fisica Nucleare sez di Trieste and the detector group of the Swiss Light Source of Paul Scherrer Institut. One of the aims of the project is to supply an in-house detector development needed by the on-going clinical mammography research at the SYRMEP beamline at ELETTRA.

PICASSO is a digital detector that comprises a linear array of microstrip sensors that are oriented oriented "edge-on", ie it's strips are aligned in parallel to the incoming beam. It is coupled with MYTHEN II ASICs operating in single photon counting mode. Its active area of the system developed during this thesis encompasses the whole height and width of the beam at the clinical station of the SYRMEP beamline where phase-contrast may be carried out. The clinical mammographic program at the SYRMEP beamline demands that the the read-out is fast , keeping in mind the huge amount of data that has to transferred and processed in real-time. With this task, the student was involved with the detector upgrade that includes the change of controllers of the detector capable of meeting the constraints in speed for clinical studies.

In year 1, the student attended in-house courses offered by the Physics Department of the university. These includes courses in detectors, medical imaging and synchrotron applications. Also in this period, the student was also introduced to the current demands with the new controllers of the detectors that were under development. Computer languages necessary to program its operation and architecture were learned. These includes C, C++, Root, VHDL – hardware description language, Linux and Microcontroller operating systems. In this year, a two month stay was carried out with the Detector Group of Paul Scherrer Institut to understand the operations of the MYTHEN detector system and to perform preliminary tests on the new controller under development.

In the second year, the new software architecture and firmware was completed for a single PICASSO controller . Tests were carried out on its front end electronics, analog as well as digital components and the overall performance of the electronics. Collaborative work remained with the Detector Group of the Swiss Light Source in this year. Two visits to their laboratory to perform further tests with the PICASSO detector were done. Also, initial results with the new PICASSO architecture were communicated to the detector community as an oral presentation at the 13th International Workshop on Radiation Imaging Detectors at ETH Zurich, Switzerland.

The PICASSO detector was brought to the SYRMEP beamline to test its imaging capabilities. Images were taken to the experimental and clinical stations of SYRMEP. In these runs, the signal- to noise-ratio, contrast and spatial resolution were evaluated together with the dose delivered to

standard mammographic phantoms, simulating image acquisition with patients. Further, the student and the detector under development was involved in imaging studies where novel techniques on coded-apertures were used.

PICASSO detector, in its final configuration is composed of four layers grouped in two pairs, each controlled by separate controllers. Effort was given on the synchronization of the two controllers of the detector this year, concurrent with the testing with the fourth and last layer of PICASSO. The whole assembly will be tested at the beamline on 16-20 November. The planarity of all the layers will be evaluated. The alignment of the four layers may be adjusted by using the screws on the lateral sides of the detector frames. The gaps among sensors will also be checked. Ideally, minimal or zero gap should exist between the top sensor of both detector couples. The same should be true for the bottom sensors. Synchronization of the two controllers of the detector will be tested with the beam concurrent with image reconstruction putting into consideration the inherent time delay between the two.

Publications

Munro PRT*, Rigon L, Ignatyev K, Lopez FC, Dreossi D, Speller RD and Olivo A. A quantitative non-interferometric x-ray phase contrast imaging technique Optics Express (in press, 2012)

Lopez, FC*, Rigon L, Longo R, Arfelli F, Bergamaschi A, Chen RC, Dreossi D, Schmitt, B, Vallaza E, Castelli E 2011 *Development of a fast read-out system of a single photon counting detector for mammography with synchrotron JINST **6** C12031* doi:10.1088/1748-0221/6/12/C12031 *inserted in UGOV

Oral Presentation

Lopez, FC*, Rigon L, Longo R, Arfelli F, Bergamaschi A, Chen RC, Dreossi D, Schmitt, B, Vallaza E, Castelli E 2011 *Development of a fast read-out system of a single photon counting detector for mammography with synchrotron* 13th International Workshop of Radiation Imaging Detectors

Longo, R*, Arfelli F, Dreossi D, Lopez FC, Quai E, Quaia E, Tromba G, Castelli E (2011) *Misura in vivo del coefficiente di attenuazione lineare della mammella* VII Congresso Nazionale Assosazione Fisica Medica 13-16 Settembre 2011 Catanzo, Italy

Poster Presentation

Lopez FC*, Rigon L, Arfelli F, Bergamaschi A, Chen RC, Dreossi D, Longo M, Schmitt B, Vallazza E, Castelli E and Longo R "The PICASSO detector at the clinical mammography facility of the SYRMEP beamline: preliminary results" 7th Medical Applications of Synchrotron Radiation Workshop 17-20 October 2012 Shanghai, China

Longo R*, Arfellli F, Dreossi D, Lopez FC, Quai E, Quaia E, and Tromba G "In vivo measurements of the breast linear attenuation coefficient" 7th Medical Applications of Synchrotron Radiation Workshop 17-20 October 2012 Shanghai, China

Longo M*, Rigon L, Arfelli F, Chen RC, Lopez FC, Olivo A, Munro P, and Longo R "A quantitative study of coded-aperture based X-ray phase contrast imaging with synchrotron radiation" V Alpe-Adria Medical Physics Meeting 3-5 May 2012 Trieste Italy

Lopez,FC* , Rigon L, Longo R, Arfelli F, Bergamaschi A, Chen RC, Dreossi D, Schmitt, B, Vallaza E, Castelli E. (2011) "*PICASSO: En route to digital detection for mammography with synchrotron radiation"* Secondo Convegno Conguinto SILS-SISN, XIX Convegno Nazionale SILS, XXII Convegno Nazionale SISN Trieste, Italy 1-3 September 2011 (One of the winners : Best poster, Young Researcher's Award)

International / National Schools:

1) School on Synchrotron and Free-Electron-Laser Sources and their Multidisciplinary Applications (International Center for Theoretical Physics Trieste 26 April – 7 May 2010)
2) International School of Trigger and Data Acquisition (La Sapenza, Rome 9-16 February 2011)
3) Rivelatori ed Elettronica per Fisica delle Alte Energie, Astrofisica, Applicazioni Spaziali e Fisica Medica (INFN Laboratori Nazionali di Legnaro, 12-13 April 2011)
4) Joint ICTP-IAEA Advanced Courcse in Mammography (International Center for Theoretical Physics 3-7 October 2011)
5) Monte Carlo Radiation Transport and Associated Needs for Medical Applications (International Atomic Energy Agency/ICTP 17-28 October 2011)

Periods outside Italy for collaborative work

1) Paul Scherrer Institute Villigen, Switzerland. Worked on PICASSO detector readout system in collaboration with Swiss Light Source Detector Group. (October – November 2010)
2) Paul Scherrer Institut, Villigen, Switzerland. Worked on PICASSO detector readout system in collaboration with Swiss Light Source Detector Group. (11 July – 15 July 2011)
3) Paul Scherrer Institut Villigen, Switzerland. Worked on PICASSO detector readout system in collaboration with Swiss Light Source Detector Group. (04 December – 10 December 2011)

In-house courses (120 hours/80 hours)

1) Caratteristiche generali dei rivelatori - 72 hours
2) Metodi in Immagine in Fisica Medica – 48 hours

2012 end of cycle report of Fabio Novelli, Ph.D. student XXV cycle

Supervisor Prof. Fulvio Parmigiani

Co-Supervisor Dr. Daniele Fausti

May 2010 – December 2010

Time-resolved studies of topological insulators by Angle Resolved Photo-Emission Spectroscopy (ARPES).

Topological insulators are a class of crystals which are electrical insulators in the bulk but their surface is metallic and allows a flow of electrons with definite spin. The first material of this type has been measured in 2006 (Zhang et al., Science 314, 1757-1761) in a quantum well system realized at the interface between the semiconductors HgTe and CdTe. Recently the research activity concentrated on the growth of Bi2Se3 and Bi2Te3, which are semiconductors with a gap of few hundreds meV and a simple band structure.

In the first few months of my Ph.D. I studied Bi2Se3 crystals with different doping by means of

- Time-resolved ARPES, equipped with both an hemispherical electron analyzer and a two-dimensional Time-of-Flight (ToF) electron analyzer and uses either a helium source (21.2 eV) or a pulsed laser source
- Spin-resolved ARPES, equipped with a Mott-ToF in order to resolve the spin components

2011

Ultra-fast time-resolved spectroscopy of strongly correlated materials.

I developed a tabletop TeraHertz pump – broadband optical probe setup to study and possibly drive (D.Fausti et al., Science 331, 189, 2011) photo-induced phase transformations in high temperature superconductors.

In order to produce a **broadband optical probe** we used super-continuum white light generation in a sapphire crystal. We performed a 800 nm pump & broadband probe temperature-study of YVO_3 to test the acquisition electronics and develop a suitable procedure for data analysis.

YVO_3 is a case-study among **transition metal oxides**, since it shows an interesting variety of phase-transitions upon cooling. Its optical bands are directly related to the orbital, magnetic and electronic degrees of freedom but their interpretation is controversial. Performing reflectivity measurements in the time and frequency domains, we demonstrated that the two lowest lying optical transitions (at hν=1.8 eV and hν=2.4 eV) belong to the same band, while the lower binding energy one is interpreted as a Hubbard exciton, i.e. a nearly bound state stabilized by a kinetic energy drop that we are able to quantify. Moreover, we rationalize the non-thermal long-living (>

1 ns) metastable phase as spin disorder, and suggest that the material can be used as an ultrafast magnetic switch (F.Novelli et al., PRB 86, 165135, 2012).

The most efficient way to produce **TeraHertz pump** pulses in a tabletop setup is the "tilted wavefront generation"(J.Hebling et al., J. Opt. Soc. Am. B 25, B6, 2008). At first I get accustomed with THz spectroscopy by realizing a "TeraHertz time-domain" (THz-TDS) setup to study the optical properties of a material at very low energies (1 THz ≈ 4 meV). Afterwards we measure the evolution of the TeraHertz transmission of silicon after pumping with ultra-short 800 nm pulses with a "Time-Resolved TeraHertz" (TRTS) setup. At this stage both optical rectification in a ZnTe crystal and four wave mixing in plasma were used to generate "weak" THz pulses from a Ti:Sa laser source. We performed a series of optical/THz pump – THz probe measurements on $CuGeO_3$, the only non-organic Spin-Peierls system known so far, both in-house and at the FEL of Dresden. Then we collect reflection and transmission spectra of a Pnictide superconductor. Through all these experiences I acquired the skills needed to realize a setup based on the novel generation technique of tilted wave front in $LiNbO_3$. This technique reaches efficiencies exceeding 10^{-4} and THz pulses with more than 100 nJ of energy corresponding to a fluence higher than 10 $\mu J/cm^2$ were obtained. With this setup we studied the optical response of GaAs.

In the **Franz-Keldysh effect** an electric field perturbs the optical properties of a semiconductor in an energy region across the gap. By pumping with ultrashort single-cycle pulses of THz radiation we detected the dynamical Franz-Keldysh effect in GaAs and, moreover, a novel saturation regime for strong THz field is revealed (in preparation).

2012

In search of selective excitations for studying out-of-equilibrium properties in strongly correlated electron systems and high temperature superconductors.

In transition metal oxides the electronic, magnetic and lattice correlations are responsible for exotic and intriguing physical properties such as colossal magneto-resistance and high-temperature superconductivity. Time-domain spectroscopy offers a unique tool to disentangle the different players in the game. Furthermore, it can be used to induce non-thermal transitions in condensed matter. In particular, by tailoring of the pump pulses, it is possible to drive a condensate into the desired physical state by a selective excitation.

During my PhD we developed an ultrafast laser-based pump-probe spectroscopic tool which combines broad-band optical probes in the 1-3 eV range and ultra-short pulses with high intensity either at optical or THz frequencies (1 THz is about 4 meV).

In 2012 I performed broadband-probe optical-pump time-domain reflectivity measurements on the Mott-insulator La_2CuO_4 and on optimally doped thin films of superconducting $YBa_2Cu_3O_{7-\delta}$. Moreover, THz-pump experiments on $YBa_2Cu_3O_{7-\delta}$.

In order to address the pump-wavelength dependence of the frequency and time-domain response of cuprates we studied the parent compound La_2CuO_4. Here, I demonstrated that the pump effect cannot be treated as a simple perturbation of the system, as completely different dynamics are revealed when the pump pulses are at lower or higher energies with respect to the charge-transfer gap at 2 eV. This evidence forces to review all the interpretations on time-resolved data on HTSC (in preparation).

I studied thin films of optimally doped $YBa_2Cu_3O_{7-\delta}$ with 800nm-pump and 400-1200nm probe and revealed an anomalous enhancement of a Ba vibrational mode upon entering the superconducting state. I demonstrate that the spectral distribution of the coherent phonon detected in the time-domain is heavily affected when the condensate melts non-adiabatically as a consequence of high fluence excitation. The details of the mechanism leading to such an effect are under investigation, but oscillations of the superconducting gap or structural deformations seems suitable candidates (in preparation).

I performed preliminary measurements on $YBa_2Cu_3O_{7-\delta}$ and show that pumping above or below the superconducting gap results in a different optical response of the material in the time-domain. This can be rationalized if the optical response is associated to quasi-particles piled up in antinodal points of the superconducting gap.

Fabio Novelli's plan of studies, Ph.D. student XXV cycle

Classes:

- Corso estivo "Energia per il domani: fonti rinnovabili, idrogeno e risparmio energetico", Giugno-Luglio 2010, Sesto - Prof. Fermeglia, 25 hours
- Advanced Imaging and Spectromicroscopy methods for chemical and structural characterization of micro- and nano-materials - Prof. Kiskinova, 15 hours
- Noisy Channels and Quantum Communication - Prof. Romano, 20 hours
- Molecular self-assembling and nanostructures - Prof. Morgante, 20 hours

Schools and workshops:

- XV Training Course in the Physics of Strongly Correlated Systems (Vietri sul Mare, Italy), 4/10/2010-15/10/2010
- The new generation in strongly correlated electron systems NGSCES 2012 (Portoroz, Slovenia), 25/6/2012-29/6/2012

  Oral presentation: "*THz pump white light probe time domain spectroscopy*"
- Innovations in Strongly correlated Electronic Systems: School and Workshop (Trieste, Italy) 6/8/2012-17/8/2012

  Poster:"*Hubbard exciton revealed by time-domain optical spectroscopy*"

Papers:

- "Ultrafast optical spectroscopy of the lowest energy excitations in the Mott insulator compound YVO_3: Evidence for Hubbard-type excitons"

  F. Novelli, et al. PHYSICAL REVIEW B 86, 165135 (2012) (in U-GOV as of 07/11/2012)
- "Quantum memory effects in bulk GaAs detected by pump-probe THz spectroscopy"

  F.Novelli, et al. in preparation
- "Disentangling the charge transfer dynamics in La_2CuO_4 by selective excitations"

  F.Novelli, et al. in preparation
- "Resonant and activated phonons detected by superconductivity quenching in optimally doped $YBa_2Cu_3O_{7-\delta}$"

  D.Fausti, **F.Novelli**, et al. in preparation

Summary of the PhD activities
Student: Giorgia Olivieri

BEAMTIMES AT *ELETTRA* SYNCHROTRON (Trieste)

- *August 2010- "*Analysis of C60-based *ball and socket* semiconductors interfaces" at ALOISA beamline
  Achievements: Organic solar cells have depended heavily of C60 and related derivatives for electron transporting and donating functionalities. A new family of contorted electron donating materials which form a socket that demonstrates a bulk co-crystal with C60, have been synthesized. The hypothesis that this contortion enhances device performance has been tested using XPS, NEXAFS and RPES.
- *November 2010*- "Study of the electronic levels of an organic semiconducting crystal" at ALOISA beamline
  Achievements- 4-hydroxycyanobenezene (4HCB) is a dipolar conjugated molecule which is the base constituent of very interesting semiconducting single crystals. 4HCB films have been successfully deposited Au(110) surface. Both the monolayer and the thick film have been characterized by means of XPS, NEXAFS and RPES. In the monolayer the molecules are adsorbed on the surface with one preferential geometry, while in the multilayer the molecular orientation does not have preferential directions. In both phases a molecule-molecule interaction has been observed.
- *June 2011*- "Exciton dissociation at the interface between C60/C70 and highly contorted hexabenzocoronene derivatives for solar cell applications" at ALOISA beamline
  Achievements: Following the first set of experiments on the *ball and socket* system, new interfaces comprising highly contorted hexabenzocoronene materials and both C60 and C70 have been tested to examine their electronic interaction.
- *August 2011*- "Molecular spectroscopy of 4-hydroxycyanobenzene" at GasPhase beamline
  Achievements- The electronic structure of 4HCB molecule in its gas phase has been fully characterized.
- *March 2012*- "Study of the electronic levels of organic semiconducting single crystals" at ALOISA beamline
  Achievements- 4HCB single crystals growth in solution have been inserted in the measuring chamber and both XPS and NEXAFS have been successfully performed on it. Due to beam damaging the RPES could not have been measured.

EXTERNAL COLLABORATIONS

- *October-December 2011-* Joint programme in the context of the CEI (Central European Initiative) University Network: Advanced Materials and nanosystems for ICT. (Dept. of Physics, University of Ljubljana, Slovenia)
  Project- Analysis of the ResPES and NEXAFS data taken on the *c*-HBC/C60 ball-and-socket system.

- *June-October 2012*- Visiting student at CLUE (Columbia Laboratory for Unconventional Electronics) laboratory, Columbia University, New York.
  Project- Realization and optimization of organic tandem solar cells with graphene used as recombination layer.

LIST OF ATTENDED SCHOOLS

- "HERCULES 2011", Grenoble from 02/27/2011 to 03/30/2011
- "Summer school on atomistic simulation techniques for material science, nanotechnology and biophysics", SISSA, Trieste from 07/11/2011 to 07/29/2011

LIST OF ATTENDED CLASSES

- "Advanced imaging and spectromicroscopy methods for chemical and structural characterization of micro- and nano-materials" M. Kiskinova (15 h)
- "Applicazioni chimiche della simmetria molecolare" P. Decleva (32 h)
- "Molecular self-assembling and nanostructures" A. Morgante, L. Casalis, L. Pasquato (20 h)
- "Spettroscopie di fotoemissione e spettromicroscopie" A. Baraldi (25 h)

CONFERENCES AND WORKSHOPS

- IOM-CNR Workshop, Trieste, Italy 30/09/2010-01/10/2010
- SINFO (Surfaces, Interfaces and Functionalization Preocesses in Organic Compounds and Applications) Workshop, June 2012, Parma, Italy
  Poster: "*Investigation of 4HCB molecule by synchrotron based techniques"*
- XX SILS (Italian Synchrotron Radiation Society) Conference, July 2012, Cosenza, Italy
  Poster: "*Investigation of 4HCB molecule by synchrotron based techniques"*
- *SPIE Optics + Photonics, San Diego, USA, 12-16/08/2012*

PUBLICATIONS

- "Donor-acceptor shape matching drives performance in photovoltaic", Schiros T., Kladnik G., Prezzi D., Ferretti A., Olivieri G., Cossaro A., Floreano L., Verdini A., Schenck C., Cox M., Gorodetsky A., Plunkett K., Delongchamp D., Nuckolls C., Morgante A., Cvetko D., Kymissis I.
  Submitted
- "Investigation of 4HCB molecule by synchrotron based techniques" Olivieri G. *et al.*
  In preparation

Dottorato di Ricerca in Fisica
presso INAF – Osservatorio Astronomico di Trieste
Relazione di fine A.A. 2011/2012 (Quarto Anno)

The cosmic star formation rate: Observational measures and modelization

Ph.D Thesis, Shaji Vattakunnel

Ph.D. Student: Shaji Vattakunnel
Supervisors: Francesca Matteucci (DAUT), Paolo Tozzi (INAF-OA Trieste)

Scientific Activity Star formation is one of the key element for understanding galaxy composition and evolution. My Ph.D. Thesis is devoted to the study of the cosmic star formation history and star forming galaxies, both from an observational and from a theoretical point of view.

A multiwavelength approach to the identification of star forming galaxies at high redshift is crucial to obtain a bias-free measure of the star formation rate. Instantaneous star formation in a given galaxy can be estimated through the measure of a tracer related to the emission of young, massive, short-lived stars. However, most of the star formation tracers are affected by strong uncertainties. It must be stressed that it is possible to identify star forming regions only in local galaxies due to the limited angular resolution, while for distant galaxies we must rely on the total galaxy emission. My scientific work is then mainly focused on two bands not affected by absorption, the X-ray and radio bands. The X-ray emission is mostly associated to the High-Mass X-ray binaries, promptly formed with the high mass stellar population, while the radio emission is due to the thermal bremsstrahlung emission from HII clouds associated to star forming regions. However, these two observable have their own observational complexities. X-ray emission can be contributed also by Low-Mass X-ray Binaries, which is proportional to the integrated star formation history rather than the instantaneous one, by the presence of hot gas and, most important, by the presence of a central Active Galactic Nuclei (AGN). Radio emission can be contaminated as well by the presence of a radio AGN. Disentangling the signature of star formation from other contributions at high redshift is difficult due to the limited angular resolution in both bands (which can be at best 1 arcsec). It is not possible to identify star forming regions in distant galaxies, so that the instantaneous star formation rate must be derived from a unique measure for the entire galaxy.

To address this issue I am using the deepest data available, in one of the most observed region of the sky, the Chandra Deep Field South (CDFS). The radio VLA survey of the Extended Chandra Deep Field South, along with the deep and medium-deep X-ray coverage, allow me to explore the capability of tracing the past cosmic star formation history using the combination of the deepest X-ray and radio data.

During the **first year** of my PhD, my scientific work was mainly focused on data reduction and analysis in the X-ray and radio bands. Then I cross-correlated the X-ray

sources with the sources detected in the radio band, in order to find all radio objects with an X-ray counterpart. The positional match was then refined with a visual inspection of the optical counterpart of each source. Therefore I obtained three source samples: one of objects detected in both X-ray and radio bands, and two of sources detected only in radio or X-ray band.

In the **second year** of my PhD, I updated the X-ray with the newest 4Ms Chandra observation of the CDFS, and updated the calibration of the 250 ks exposure of the E-CDFs area (flanking the deepest CDFS field). A full spectral analysis of the identified X-ray counterparts of the VLA sources, supported by optical measure of the redshift for the majority of them, allowed me to characterize their X-ray properties, and to provide a robust classification in terms of AGN and star forming galaxies.

In the **third year** of my PhD, I updated the X-ray with the newest CDFS catalog and calibration, and improved the spectral analysis and classification. The identification of the sources dominated by emission associated to star forming processes was done through many criteria based both on radio and X-ray emission: low unabsorbed X-ray luminosity in hard band L_X(2-10 keV), low intrinsic absorption N_H, no evidence of Fe emission line, no X-ray timing variability at 97% level of confidence, low X-ray to optical ratio Log(F_X/F_{opt}), low radio power $L_{1.4GHz}$, no radio variability at a 3 σ confidence level, high radio slope α_R, measured between 1.4 GHz and 5 GHz, no evidence in radio image of FR I or FR II morphology. It can be noticed that X-ray criteria alone are able to screen almost the 98% of AGNs, unlike radio criteria which barely select the 43% of them. Therefore we can use with confidence the same criteria on the objects detected only in X-ray band, while we expect an higher AGN contamination in the radio-only sample.

After having identified the sources dominated by emission associated to star forming processes, we are able to evaluate the radio-X-ray correlation and estimate the instantaneous star formation rate for all of them.

Our results are summarized as follows:

- Among the 268 sources with both radio and X–ray detections, 43 (~16%) are consistent with being powered by star formation processes in both bands. Among the sources detected only in the X-ray or the radio band, we select 70 and 111 star forming candidates, respectively;
- We find that for the sources detected in both bands the $L_X - L_R$ relation is well fitted with a slope close to 1: $Log(L_{2-10keV}) = (1.04 \pm 0.05) \times Log(L_{1.4GHz}) + (17.68 \pm 1.15)$. The fit which includes X-ray upper limits, treated with censored data analysis, is consistent with the previous relation;
- Assuming a linear slope in the $L_X - L_R$ relation and splitting our sample in low and high redshift bins, we find no evolution in redshift;
- We find that the $L_X - L_R$ relation shows a significant scatter. We estimate its intrinsic component to be 0.4 dex, possibly due to a contribution to X-ray luminosity unrelated to the instantaneous SFR;

- Finally we compute relation between SFR and X-ray luminosity in the 2-10 keV band: $SFR = (1.40 \pm 0.32) \times L_{2-10keV}\ 10^{-40}\ M_{\odot}/yr$. The comparison of these data with models of chemical evolution allows us to explore the nature of the SFG galaxies. The SFRs we measure in our deep narrow survey span a wide range from normal spirals like the Milky Way or M31, to starburst like M82, up to strong starburst typical of bulges and spheroids in formation.

The strong correlation of SFR with the hard X-ray luminosity in our high-z galaxy sample shows that X-ray surveys can provide a powerful and independent tool in measuring the instantaneous SFR in distant galaxies. However, our data also indicates that the complex physics behind the X-ray and radio emission associated to star formation, may introduce significant scatter between L_X and SFR.

In the **fourth year** of my PhD, I modelled starburst-like galaxies making use of chemical evolution models. The model consists of a one-zone model where the galaxy is formed by infall of primordial gas (no metals). The gas forms stars, which in turn pollute the interstellar medium (ISM) with newly created elements the interstellar. We assume that the new elements are mixed instantaneously but we do not adopt the instantaneous recycling approximation. Supernovae (SNe) release part of their energy in the ISM and, if the thermal energy of the gas so heated is higher than the binding energy of the gas, winds develop expelling mostly metals. I varied four parameters (infall mass, star formation efficiency (ν), number of bursts and wind efficiency) and the initial mass function (IMF), and constrained them with observational data. Comparison with SFR, SNrate and metallicity from both local galaxies (M82) and high redshift galaxies, leads to the following results:

- The high z starbursts are only massive galaxies. Low mass starbursts can be observed only in the local universe;
- A bursting scenario with short and highly efficient SF is more conceivable in reproducing the observed SFR and chemical abundances;
- Winds are produced only with high SF efficiencies ($\nu > 10\ Gyr^{-1}$) due to the potential well of the galaxy;
- The comparison of the models with the local starburst M82 shows that the galaxy is in a high efficient and short bursting phase ($\nu > 1\ Gyr^{-1}$) and that an IMF different from Salpeter better reproduces the data;
- Only bursting models with strong efficiency reach the high star formation observed in high z starburst galaxies. This suggests the we observe only the short bursting phases of the galaxies, being the quiescent period below the flux limit, but for local galaxies.

Corsi (first year):

1. Cosmic Structure Formation (16 hours) (passed) Prof. Stefano Borgani
2. X-ray Astronomy (8 hours) (passed) Prof. Paolo Tozzi
3. Stellar Nucleosynthesis and Chemical Evolution (10 hours) (passed) Prof.ssa Maria Francesca Matteucci
4. Stellar feedback and galaxy evolution (10 hours) (passed) Dott. Simone Recchi (Universita' Statale di Vienna)
5. Evoluzione chimica e fotometrica delle galassie (40 hours) (passed) Prof.ssa Maria Francesca Matteucci

Schools:

First year:

Summer School Novicosmo 2009: Highlights in Astrophysics.

Second year:

National PhD School of Astrophysics Francesco Lucchin 2010: *The Infrared Universe: the Herschel and Alma eras*.

Talks:

First year:

Student talk in the Summer School Novicosmo 2009: *Faint and Extragalactic Sources: Star Formation and Nuclear Activity*.

Report of Summer School Novicosmo 2009.

End of the first year seminar: *Star Formation and Nuclear Activity at high redshift*.

Second year:

Journal Club OATS: *Star Formation and Nuclear Activity of Faint and Extragalactic Sources*.

Talk in the National Congress AGN9 2010: *The VLA Survey of the Chandra Deep Field South: X-ray Properties of Radio Sources*. Third

year:

Journal Club OATS: *Report of PhD School "Francesco Lucchin" 2010: IR Surveys - from the dust to the galaxy populations*.

Fourth year:

Talk in the National Congress AGN10 2012: *Results from the VLA-E–CDFS Survey: X-ray Properties of Radio Sources*.

Publications:

Vattakunnel et al. 2011: *The Radio - X–ray relation as a star formation indicator: Results from the VLA–E-CDFS Survey*.

Bonzini et al. 2012: *The sub-mJy radio population of the E-CDFS: Optical and IR Counterpart Identification*.

PhD Progress Report for Sara Mohammadi

Contact details: sara.mohammadi@elettra.trieste.it
XXV-cycle, Physics Department, Trieste University
Supervisors: *Giuliana Tromba, Fulvio Parmigiani*

Bio-medical X-ray imaging with Synchrotron Radiation: study and implementation of algorithms related to phase-sensitive techniques

This report summarizes my Ph.D. research progress from January 2010 to November 2012. As stated in my previous reports, the goal of my Ph.D. research is to optimize the application of phase retrieval methods for different phase-contrast imaging situations.
My research methodology consists of three phases. The first part concerned experimental activity carried out at the SYRMEP beamline of Elettra and focused on using phase contrast imaging for different purposes of research in the life science. The second phase was dedicated to the study and implementation of algorithms related to phase-sensitive techniques. During the third and final phase, I analyzed the two most-applied single-distance phase-retrieval approaches and outlined derivations, approximations and assumptions of each one. The details of these steps, in chronological order, are summarized below.

Motivation

Since the discovery of X-rays, absorption has been the dominant principle of image formation in X-ray Radiography. However, a wide range of bio-medical samples demonstrates very weak absorption contrasts [Momose et al., 2001]. Phase contrast imaging increases the sensitivity in the hard X-ray region and provides substantially enhanced contrast, especially for low-Z samples [Schmahl et al., 1998, Sayre et al., 1995, Nugent et al., 1996]. Phase contrast imaging helps to reduce the radiation dose delivered to the sample under investigation: this is a very important issue for *in vivo* studies [Arfelli et al., 1998].
Whilst a majority of the experimental research on X-ray phase contrast imaging is ongoing we now know that phase contrast imaging has an important role to play in areas such as medical diagnostic imaging [Bravin et al., 2002; Lewis, 2004] and materials characterization [Schenk et al., 2005; Mayo et al., 2002a]. The motivation of this thesis is to optimize the application of phase retrieval algorithms for different phase-contrast imaging situations considering their applicability for different studies. Retrieving phase information from intensity distribution enables us to obtain important qualitative information directly from the phase retrieved images, as well as quantitative data about the internal composition of the sample [Momose et al., 1996].

First Year

For my PhD thesis I had the opportunity to work at the SYRMEP beam line of Elettra, where novel phase contrast imaging techniques are used for many research fields of life and material science [Abrami et al., 2004]. Due to my participation to several experiments at the SYRMEP beam line, I gained some knowledge in computed micro-tomography (mCT), micro-radiography and practical experimental skill in using the different imaging set-ups, from sample preparation to data reconstruction and analysis.
I concentrated on the in-line X-ray phase contrast imaging, also known as “propagation-based technique”. Its set-up is identical to the one for the conventional absorption-based imaging except that we increase the sample-to-detector distance and also the X-ray source is sufficiently spatially coherent [Matsuo et al.

2004]. For data treatment and quantitative analysis, I worked with some commercial software packages, such as ImageJ [ImageJ 2012], Image Pro Plus [Image Pro Plus 2012] and VGStudio [VGStudio 2012]. I got some skills also working with programs for computed tomography reconstructions based on filtered back projection algorithms (SYRMEP-Tomo-Project (STP)). I also proposed some improvements for handling the reconstructions of large number of samples. I learnt to use CT program, an improvement of STP including single distance phase retrieval algorithms developed by R.Chen [Chen et al. 2012].

Second year

In the second year, I made a thorough field-study over the phase-sensitive imaging techniques with the classification and comparison of the different approaches. My study focused on the implementations of these algorithms to microCT studies in biomedical research.

In particular, I started considering the CT program which uses the non-iterative phase-retrieval algorithm based on Born approximation proposed by Gureyev et al. [2004], designed for low-Z and homogeneous materials. Recently this code has been developed for being applied also to quasi-homogeneous objects [Chen et al., 2012]. The second approach I used was the so–called "ANKAphase" [Weitkamp et al., 2011] that processes phase contrast radiographs by utilizing the single-distance non-iterative phase-retrieval algorithm proposed by Paganin et al. [2002].

I applied these algorithms to different case studies varying the experimental conditions and image parameters, then I compared the results with the ones obtained using the conventional standard back projection approach.

I showed that, for low absorption samples, the application of phase retrieval methods brought to a great enhancement in the contrast between the different sample phases, and I also achieved more accurate quantitative analysis. As expected, the results for high absorption samples were not satisfying. In these cases the images after phase retrieval were blurred and missing the tiniest details information. After these results, we decided to focus mainly on low absorption samples and improve the images and methods.

As analysis skills, I learnt the basics of IDL-programming-language and some knowledge about quantitative analysis by using Pore3d [Brun et. al, 2010], a dedicated software developed for mCT dataset analysis. Furthermore I started to work with XTRACT [XTRACT, 2012], an image analysis and processing software toolkit developed by CSIRO that includes various phase retrieval algorithms.

Third year

I analyzed three different phase-retrieval methods to evaluate their effectiveness and applicability limits for different imaging situations and improve them. In particular I applied the non-iterative phase-retrieval algorithm based on Born approximation [Chen et al., 2012] and the "transport-of-intensity (TIE) algorithm" [Paganin et al., 2002] on single-distance mCT data of multi-material objects included in XTRACT package. Then a double-distance algorithm based on TIE equation, called TIE2R, [XTRACT, 2012] has compared with the single-distance algorithms.

We implemented the single-distance algorithms on different samples, such as lung tissue, foams, seeds, scaffolds, renal stones and defined test objects. We evaluated the contrast-to-noise ratio (CNR) and signal-to-noise ratio (SNR) for area and edge signals, respectively. In all cases the CNR values are significantly improved by applying these algorithms. We were also able to reduce the scattering contributions and achieve higher CNR values by increasing the sample-to-detector distances. We showed that both algorithms extremely increase the edge SNR values by decreasing the positive and negative

peaks across the edges. We proved that the edge noises are lower for longer sample-to-detector distances due to a smoothing effect of the reconstruction. Using phase retrieval algorithms, the edges tiny details are less defined than in the original phase contrast image because of blurring, but, on the final analysis, this is not significant since data are rendered and segmented more efficiently. Among all the studied cases, the best result regards the phase retrieval imaging of an asthmatic mice model, where we obtained high resolution images showing both morphological and functional information at the same time.

In order to analyze the TIE double-distance algorithm (TIE2R), we scanned a multi-material object at two different sample-to-detector distances. We obtained results were not satisfying. Indeed the main drawback of this approach concerns the high-accuracy requirements for the experimental set-up and the beam stability. These conditions were not satisfied in our experimental set-up.

Publications:

Sara Mohammadi, Rongchang Chen, Christian Dullin, Marjana Regvar, Giuliana Tromba, "*Application of phase-sensitive techniques to Biological samples with different absorption levels*", 4th ITSR Workshop on Imaging Techniques with Synchrotron Radiation, Bordeaux, France, September 2011 (Oral Presentation).

Stefano Pesaro, Kevin Prince, Giuliana Tromba, Sara Mohammadi, Renato Ceccherelli, Giacomo Rossi, "*Study of dystrophic versus physiological wing feathers of the common swift using phase contrast imaging and histological evaluation*", 1st International Conference on Avian, Herpetological, Herpetological and Exotic Mammal Medicine, Wiesbaden, Germany, April 2013 (Abstract accepted).

Christian Dullin, Simeone dal Monego, Emanuel Larsson, Sara Mohammadi, Andrea Lorenzon, Chiara Garrovo, Stefania Biffi, Giuliana Tromba, "*Functional phase contrast CT imaging in an asthma mouse model, utilizing barium labeled alveolar macrophages*", Second International Symposium on Bio-Medical Applications of X-Ray Phase Contrast Imaging, Garmisch-Partenkirchen, Germany, Jan 2013 (Abstract accepted).

Andre P Almeida, Doctoral Student; Liebert P Nogueira; Regina C Barroso; Marcos Colaço; Andrea Mantuano; Delson Braz; Sara Mohammadi; Giuliana Tromba; Simone C Cardoso; Eloi S Garcia; Marcelo S Gonzalez; Patricia Azambuja, *"Phase contrast Micro-computed tomography for comparison of reconstructed slices of Rhodnius prolixus with and without phase retrieval technique"*, J. Radiation Physics and Chemistry, September 2012 (Submitted).

"SR μ-tomography reconstructions of wheat (Triticum aestivum) seeds reveal X-ray translucent vacuoles within aleurone cells and specific reticulate networks of seed coats", M. Regvar, et al. (in preparation)

"Evaluation of phase retrieval techniques to improve x-ray phase contrast imaging in pre-clinical lung disease models", J. Synchrotron Rad (in preparation).

"Three dimensional detection and staging of morphological alterations in different pre-clinical asthma mouse models utilizing phase contrast x-ray lung imaging" (in preparation).

Schools, Workshops and Advanced courses:

1. School on Synchrotron and Free-Electron Laser sources and their Multidisciplinary Applications, International Centre for Theoretical Physics (ICTP), Trieste, Italy, 26 April to 7 May 2010.
2. XVIIIth European Synchrotron Radiation Light Source Workshop, Elettra, Trieste, Italy, 25 and 26 November 2010.
3. Santaló's Summer School on Mathematical Models in Image Processing and Computer Vision, Santander, Spain, 8 to 12 August 2011.
4. 4th ITSR Workshop on Imaging Techniques with Synchrotron Radiation, Bordeaux, France, 24 to 27 September 2011.

5. Courses taken:

Course Title	Teacher	Status	Hours
Metodi in Immagine in Fisica Medica	R. Longo	Exam passed	48
Metodi di trattamento delle immagini	M. Messerotti	Exam passed	72
Applicazioni della radiazione di sincrotrone	G. Paolucci	Exam is missed*	72

* This course was out of PhD program. However, in order to be familiar with the subject and improve my background, I attended it as optional course.

Chapter and Section outline of my dissertation

Chapter 1: Introduction

Phase sensitive imaging
Phase retrieval

Chapter 2: Phase contrast imaging

Properties of X-ray
    Absorption coefficient and refractive index
Intensity and phase distribution
Propagation-based imaging
    Mathematical basis for propagation-based phase contrast
Phase retrieval method
    Single-distance algorithm
        Phase retrieval in TIE approach
        Phase retrieval in Born approximation approach
    Multi-distance algorithm

Chapter 3: Experimental implementation and methods

X-ray sources
X-ray tubes
Synchrotron radiation facilities
The SYRMEP beamline at Elettra

Experimental setup
Image acquisition
Image processing
    Slices reconstruction
    Pore3d software
Contrast-to-noise and Signal-to-noise ratio

Chapter 4: Quantitative analysis of Propagation-based phase contrast imaging

Experimental methods Test
    phantom Biological
    samples

Chapter 5: Comparison of the phase retrieval algorithms

Absorption and phase-shift cross-sections
SNR_area and SNR_edge
Conclusion

Postgraduate Research Proposal

As my postgraduate research, I applied for TRIL (Training and Research in Italian Laboratories) program at ICTP, Trieste, Italy. The activity during this program will be mainly concentrated in two directions: i) study and application of double distance phase retrieval algorithms for multi elemental samples; ii) new applications of single distance phase retrieval algorithms to new scientific cases.

Bibliography

Abrami, A. et al. (2004). Nucl. Instrum. Methods Phys. Res. A, 548, 221–227.

Arfelli, F et al. (1998). Phys. Med. Biol., 43 (10) 2845 - 2852.

Bravin, A. (2002). Proc. SPIE 4682, Medical Imaging: Physics of Medical Imaging, 167.

Brun, F. et al. (2010). Nucl. Instr. Meth. Phys. Res. vol. 615, 326-332.

Chen, R. C. et al. (2012) J. Synchrotron Rad. 19, 836–845.

Gureyev, T. E. et al. (2004). Appl. Opt. 43, 2418–2430.

Image J 2012, http://rsb.info.nih.gov/ij/

Image Pro Plus 2012, http://www.mediacy.com/

Lewis, A. (2004). Phys. Med. Biol. 49 (2004) 3573–3583.

Mayo, S. C. et al. (2002a). Materials Forum, 26:15–19.

Momose, A. et al. (1995). Rev. Sci. Instrum., 66:1434–6.

Momose, A. et al. (2001). Anal. Sci. 17(Suppl.), i527–i530.

Matsuo, S. et al. (2005) Med. Phys. Vol. 32 no.8, 2690-2697.

Nugent, K. A. et al. (1996). Phys. Rev. Lett. **77**, 2961–2964.

Paganin, D. M. et al. (2002). J. Microsc., 206:33–40.

Sayre, D. et al. (1995). Acta. Cryst. A51, 237–252.

Schenk, T. et al. (2005). J. Cryst. Growth, 275(1-2):201–8.

Schmahl, G. et al. (1988). Optical Sciences, vol. 56, pp. 228–232.

VG Studio 2012, http://www.volumegraphics.com/en/products/vgstudio-max.html

Weitkamp, T. et al. (2011). J Synchrotron Rad, 18(Pt 4):617-29.

XTRACT 2012, http://ts-imaging.net/

Candidate: Valentina Capogrosso

XXV Ph.D. cycle

Supervisor Prof. F. Parmigiani, Co-supervisor: Marco Malvestuto

End-of-cycle report

During the three years of Ph.D., my research activity focused on a particular class of strongly correlated-electron materials, whose dimensionality is the most defining material parameter. With my Ph.D. project I deepened into some physical properties of these materials by means of core-levels spectroscopies such as **resonant x ray emission (RXES)** and **static and time-resolved x ray absorption (XAS)**. Most part of the measurements have been carried out at the beamline BACH (Beamline for Advanced diCHroism) and at the Time-Resolved X-ray spectroscopy (T-ReX) laboratory at the Elettra light source facility in Trieste. Part of my Ph.D. has been also dedicated to the modelling of these systems by means of ***ab-initio*** **LDA+U** calculations (WIEN2k code).

The first experimental activity has been the exploit of the capabilities of the newly developed experimental setup for time-resolved XAS experiments available at BACH. The apparatus, which was under commissioning during the first year of my Ph.D. activity, is based on a variable repetition rate Ti:sapphire laser (pump pulse) synchronized with the ~ 500 MHz X-ray photon pulses (probe pulses). The surface semiconductor-metal transition in crystalline germanium has been photoinduced. The main results are reported in Rev. Sci. Instrum. 82, 123109 (2011).

The following experimental activities focused on two case-study systems: the layered $Sr_{n+1}Ru_nO_{3n+1}$ (n=1,2,3) family and the single layered half-doped $Pr_{0.5}Ca_{1.5}MnO_4$ (hd-PCMO). Both these systems exhibit fascinating phenomena intimately related to a complicated interplay between the crystal lattice, spin, charge, and orbital degrees of freedom, where crystal dimensionality plays a crucial role.

The layered $Sr_{n+1}Ru_nO_{3n+1}$ (n=1,2,3) have emerged as an important family of perovskites because of the unexpected and unprecedented evolution from anisotropic ferro- or metamagnetic behavior of $Sr_4Ru_3O_{10}$ (n=3) dependent on the direction of the magnetic field, enhanced Pauli paramagnetism close to magnetic order of $Sr_3Ru_2O_7$ (n=2) and, finally, to low-temperature superconductivity in Sr_2RuO_4 (n=1).
Although numerous studies have been reported on the structural and magnetic properties of these compounds, the evolution of the occupied and unoccupied electronic structures were not investigated in detail. Thus, the dependence of electronic structures and the hybridization of O 2p states have been investigated by combining polarization dependent O K (2p-1s transition) XAS and RXES spectroscopies.
A parallel activity has been the participation to an experiment carried out at the Soleil synchrotron at the DEIMOS beamline. In this experiment we measured the **magnetic circular and linear dichroism (XMCD and XMLD)** on the magnetic phases of $Sr_4Ru_3O_{10}$. The data analysis is still going on.

hd-PCMO exhibits a charge-orbital ordering (CO-O) transition at a remarkably high T_{CO}, slightly above room temperature, accompanied by an orthorhombic structural distortion, where the strongly correlated Mn e_g charge carriers order onto separate

crystallographic sub-lattices (charge-ordered state) with a specific orbital character (orbital ordered state). Furthermore, hd-PCMO also displays an anomalous lattice response at temperatures 20K above the Neél temperature T_N, which is associated to an unexpected spin-lattice coupling.

Since a study of the PCMO unoccupied electronic states was lacking, temperature dependence measurements by **XAS linear dichroism (XLD)** have been performed at the O-K and Mn-L_3 thresholds in order to elucidate the role of Mn 3d - O 2p orbital topology. The experimental data, supported by *ab-initio* LDA+U, shed light on the charge redistribution and p-DOS changes at the CO-O and antiferromagnetic (AFM) transitions. The results obtained show that the competitive interplay between the local atomic distortion, necessary for accomodating the CO-ordering, and the charge dynamics of the hopping mechanism regulates the orbital state of the charge carriers.

Furthermore, on the basis of theoretical studies that predict the formation of transient "hidden" orbital and structural phases by optical stimulation, we have studied the unoccupied DOS of the optically induced metastable state in PCMO by means of time resolved XAS, which offers a unique tool to measure site and symmetry projected DOS of metastable states in matter.

Tr-XAS measurements at the O-K edge have been carried out by means of the novel experimental apparatus. The time evolution of the XAS lineshapes across the optically photoinduced CO-O transition results different respect to the adiabatic XAS measurements, demonstrating the existence of a photoinduced "hidden phase" in PCMO, whose nature is still unknown.

Exams:

- "Spectroscopies" by Prof. Parmigiani and Prof. Baldereschi;
- "Photoemission Spectroscopy and Spectromicroscopy" by Prof. Baraldi;
- "Advanced Imaging and Spectromicroscopy methods for chemical and structural characterization of micro- and nano-materials" by Prof.ssa Kiskinova.
- "Condensed Matter 1" by Prof.ssa Peressi *.

All the exams of the approved study plan have been successfully taken.

*Since during my under graduate studies my curriculum was focused on nuclear physics course, I attended this course on Condensed Matter, but I did not take the exam.

List of attended schools & conferences:

- "**Workshop dell'Istituto Officina dei Materiali (CNR-IOM)"**, September 30th-October 1st 2010, Area Science Park Campus Padriciano, Trieste. Presentation of a poster entitled: "Time Resolved and Surface-Science X-ray absorption magnetic circular dichroism (XMCD) experiments @ beamline BACH and T-Rex lab: present and future

st
at
us
";

- "**National Seminar on Innovative Detectors**", October 18-22th 2010, Area Science
Park Campus Padriciano,
Trieste;

- Participation to the **"Joint US-CERN-Japan-Russia School on Synchrotron Radiation**

& Free Electron Lasers", April 2011, Erice,
Italy.

- Participation to the **"Workshop MagDyn2011: Magnetization dynamics using pulsed X rays techniques around SOLEIL and X-FEL's"**, 28th-29th June 2011, Soleil synchrotron, Saint Aubin (France). Presentation during the **poster session** of a poster entitled: **"Time Resolved Soft x-ray Absorption Spectroscopy @ Elettra in multi-bunch mode".**

- Participation to the **"School on Synchrotron Radiation: Fundamentals, Methods and Applications"**, 5th-15th September 2011, Duino Castle (Trieste).

- Participation to the **Workshop** "**Mama: multifunctional materials and nanoscale phenomena probe and theory**", March 2012, Vietri sul Mare (Salerno). Presentation during the **poster session** of a poster entitled: " Static and dynamical XAS study of

electronic and structural phase transitions in $Pr_{0.5}Ca_{1.5}MnO_4$".

Publications:

- L. Stebel, M. Malvestuto, **V. Capogrosso** et al., **"Time-resolved soft x-ray absorption setup using multi-bunch operation modes at synchrotrons",** Rev. Sci. Instrum. 82,
123109 (2011); doi: 10.1063/1.3669787, inserted in the U-GOV catalogue.

- **V. Capogrosso,** M. Malvestuto, et al., **"Effects of charge-orbital order-disorder phenomena on the unoccupied electronic states in the single layered half doped $Pr_{0.5}Ca_{1.5}MnO_4$",** to be submitted to Phys. Rev. B.

- M. Malvestuto, **V. Capogrosso**, et al., "**Resonant X-ray emission study of the $Sr_{n+1}Ru_nO_{3n+1}$ (n=1,2,3) family: role of the apical and planar oxygen sites**", in preparation.

PhD School of Physics XXVI Ciclo - 2012 report

Vieri Candelise

Universita' degli Studi di Trieste

November 2012

Research activity performed in 2012

During my second year as a PhD student, I focused my work on the study of the Z+jets analysis with 2011 data at 7 TeV in proton-proton collisions. For this analysis, I have dedicated my attention to the development of code needed to perform the unfolding procedure for the Z+jets observables measured with the CMS experiment. Unfolding is an essential tool when a measured distribution has to be compared with theoretical predictions. It is used to statistically deconvolve an experimental distribution for the smearing effects induced by the detector response, in order to have a consistent comparison between measured data and theoretical models. First of all, I performed a series of tests to validate the procedure by using Monte Carlo distributions, then I used the validated procedure to calculate the effect of the unfolding in the most relevant distribution of the analysis, such as the differential

cross section of the inclusive Z+jets events as a function of the kinematic variables of the jet produced by the QCD radiation. The comparison between data and the pQCD predictions is made using a series of different Monte Carlo event generators. Also the calculation of the systematic effect induced by the different tuning of the generators is performed by varying the QCD parameter inside the different generators, like different models of parton density functions (PDFs) and the QCD renormalization scale. The measured and unfolded Z+jets differential cross sections are compared with the MadGraph and Sherpa predictions with different tuning. In late 2012 I started working on a possible evolution of the Z+jets analysis, studying the characteristics of the b-tagging tecnique, in order to have a preliminary plan for a Z + b quark analysis to start in the end of 2012. This work will lead to a

1

long term analysis, aimed to have as a final result the measure of the polarization asymmetry of the b quark, a crucial Standard Model parameter never measured in hadronic colliders.

Plan of studies and exams

- Flavour e violazione di CP (course attended and exam done)
- Fisica adronica al Tevatron (course attended and exam done)
- Rivelatori al silicio ed elettronica di lettura (course attended and exam done)
- Test Sperimentali del Modello Standard (course attended and exam done)

Schools and conferences

- Corfu' Summer Institute 2011 : "Unification at the LHC era"
- XCVII SIF Conference, L'Aquila, 26-30 September 2011. Presented talk title: "Study of the W/Z inclusive cross section in CMS"
- 2012 European School of High Energy Physics (ESHEP), Anjou, France
- 2012 MCnet - LPCC Summer School on Monte Carlo Event Generators for LHC

Teaching activity

- Teaching assistance position for the "Experimental Physics III" (Geometric and Phy- sics Optics Laboratory) lectures held by Dr. Giuseppe Della Ricca for Physicists, Universita' di Trieste, A.A. 2011/2012

Relevant pubblications

- V. Candelise et al., (9 authors); Measurement of the jet rate production in association to a Z boson, [CMS AN AN-11-451].
- V.Candelise et al., (9 authors); Comparison of GSF and Particle Flow electron reconstruction performance, [CMS AN AN-11-474].
- V. Candelise et al., (9 authors); Characterization of the final state radiation in Z boson decay to electrons, [CMS AN AN-12-204].

PhD School of Physics XXVI Ciclo - 2012 report

Università degli studi di Trieste

November 21, 2012

Student:
Valerio Formato

Supervisors:
Mirko Boezio
Anna Gregorio

2012 Research activity

My second year as a Ph.D. student has been focused on the analysis of PAMELA data within the framework of three distinct topics, all related to the study of the propagation of cosmic rays in the galaxy and inside the solar system.

1. I have been continuing the work aimed to the evaluation of the absolute fluxes of different hydrogen and helium isotopes, ^{1}H, ^{2}H, ^{3}He, ^{4}He, which started in 2011. This information is a powerful tool in constraining cosmic ray propagation models within the galaxy, since ^{2}H and ^{3}He are secondary isotopes which are not present in cosmic rays sources and are created by the interaction of primary cosmic rays (mainly protons and ^{4}He) with the interstellar medium. The last phases of this work consisted in optimizing the event selections and the fit procedure developed in 2011, preparing an accurate procedure to account for the time-dependent conditions of PAMELA tracking system in the Montecarlo simulation, and studying all the systematic uncertainties of the measurement.

   This work has been approved by the PAMELA collaboration and a paper has been submitted to the *Astrophysical Journal*.

2. I also worked on the measurement of time-dependent electron and positron spectra which were the topic of Dr. Riccardo Munini's Master Thesis, for which I have been co-supervisor, focusing on all the details of the Montecarlo simulation given also the experience gathered from the hydrogen and helium isotopes analysis. This analysis led to a preliminary result for Dr. Munini's thesis and it's been re-examined in these last months to refine all the selections and to increase the statistics in order to lead to the most accurate determination possible of positron and electron fluxes at low energies.

3. Recently I moved to the measurement of cosmic-rays boron and carbon fluxes. This is probably one of the most useful measurement for cosmic-rays propagation in the galaxy. Performing this measurement with a satellite-borne experiment, such as PAMELA, reduces significantly the systematic uncertainties that come from the presence of the residual atmosphere above the instrument.

   I am currently working on the evaluation of the tracking system efficiency with Montecarlo simulations, given the experience gathered so far on this subject, on the optimization of some of the selections involving the spectrometer, on cross-checking the particle losses due to hadronic interactions taking place above the apparatus, and on the evaluation of the number of boron secondary events coming from carbon spallation in the detectors above the spectrometer. The current goal for this analysis is to have the first results on boron and carbon spectra by the end of the year.

Plan of studies

- E. Milotti - Introduzione ai Metodi Bayesiani (course attended and exam done)
- F. Longo - Gamma-ray Bursts (course attended and exam done)
- S. dalla Torre - Rivelatori a gas di particelle ionizzanti e rivelatori RICH (course attended and exam done)
- M. Boezio and F. Longo - Fisica astroparticellare: raggi cosmici e astrofisica gamma (course attended and exam done)
- F. Cossutti - Test sperimentali del model standard (course attended and exam done)
- V. Bonvicini - Rivelatori al silicio ed elettronica di lettura (course attended and exam done)
- A. Gregorio - Laboratorio di astrofisica spaziale (exam to be done as soon as possible)

Schools and conferences

- International School of Cosmic Ray Astrophysics, Erice, 4-10 July 2012
- SLAC Summer Institute 2012, Stanford, 23 July - 4 August 2012

Dottoranda (XXVI ciclo della Scuola di Dottorato in Fisica di Trieste): Erika Giangrisostomi

Supervisore (afferente all'ente finanziatore): Ph.D. Claudio Masciovecchio **Referente presso il collegio di dottorato:** Prof. Fulvio Parmigiani

Tipologia di borsa: finalizzata al Progetto "Attività sperimentale con luce di Sincrotrone" su fondi Sincrotrone Trieste S.C.p.A.

Titolo del progetto di ricerca: Studio della materia in condensata in condizioni termodinamiche estreme attraverso esperimenti di tipo pump-probe

CORSI FREQUENTATI

•"*Advanced Imaging and Spectromicroscopy methods for chemical and structural characterization of micro- and nano-materials*", tenuto dalla Ph.D. Maya Kiskinova;

esame sostenuto in data 24 giugno 2011

•"*Applicazioni della radiazione di sincrotrone*", tenuto dal Prof. Giorgio Paolucci;

esame sostenuto in data 7 dicembre 2011

SCUOLE FREQUENTATE

•"*HERCULES2012, Higher European research course for users of large experimental systems*"

tenutasi dal 4 marxo al 4 aprile 2012 a Grenoble, Francia

•"*XFEL2012, X-ray free electron laser school*"

tenutasi dal 4 all'8 giugno 2012 ad Annecy, Francia

BREVE RESOCONTO DELL'ATTIVITA' DI RICERCA SVOLTA NELL'ANNO 2012

Nel corso del suo secondo anno di dottorato, la dottoranda ha svolto attività di ricerca sui seguenti fronti.

i)

a)Ultimazione dell'allestimento, presso il laboratorio laser del gruppo IUVS-EIS ad Elettra, di un apparato pump-probe su tavolo ottico, da lei stessa progettato, per misure spettroscopiche di trasmissione e riflessione risolte in tempo al femtosecondo;

b)sua ottimizzazione in funzione del coniugare ampiezza e risoluzione spettrale, qualità del rapporto segnale-rumore e durata della misura;

c)messa a punto, in collaborazione con un team di informatici di Elettra, di un programma di acquisizione dati che, in quanto realizzato su piattaforma TANGO (il sistema di controllo distribuito sviluppato da un consorzio di facilities di sincrotrone ed adottato presso Fermi@Elettra) garantirà la piena integrabilità presso la beamline TIMEX che, con l'imminente installazione di un laser utenti e di una linea di ritardo, si appresterà ad effettuare analoghi esperimenti di tipo pump-probe.

i)

a)Partecipazione all'allestimento di TIMEX, la beamline di Fermi@Elettra dedicata a studi risolti in tempo della materia in condizioni estreme e/o metastabili, il cui layout è stato rivisto sostanzialmente a seguito della rinuncia, comunicata lo scorso gennaio dalla ditta da due anni assegnataria della commissione, alla realizzazione dello specchio ellissoidale di focalizzazione del fascio in camera sperimentale;

b)partecipazione allo sviluppo del software di acquisizione dati per la beamline

c)realizzazione di un software per l'analisi real-time dei dati acquisiti sulla beamline

d)partecipazione ai turni di commissing della beamline svoltisi durante i run 10 (marzo), 12 (luglio ed agosto) e 14 (novembre) della macchina Fermi@Elattra.

i)

Analisi dei dati raccolti durante le suddette campagne di misura, i cui principali risultati sono stati:

a)individuazione di condizioni critiche di operatività della macchina e degli strumenti di diagnostica delle caratteristiche del fascio FEL

b)individuazione delle tipologie di detector più idonee per la rilevazione dell'intensità del fascio FEL in camera sperimentale

c)determinazione della soglia $M_{4/5}$ del Ge, primo esempio assoluto di spettro di assorbimento da luce FEL (pubblicato in *New Journal of Physics* **14**, 113009 (2012));

d)determinazione della soglia $M_{2/3}$ del Ti che, differenziandosi per alcune caratteristiche dallo spettro di assorbimento collezionato presso la beamline di un normale sincrotrone di terza generazione (BEAR ad Elettra), apre la strada ad esperimenti XANES con una risoluzione temporale senza precedenti grazie alla quale è possibile monitorare modificazioni della struttura elettronica in materiali che l'intensissima luce FEL conduce in condizioni di eccitazione non altrimenti raggiungibili né sondabili.

Trieste, venerdì 23 novembre 2012

la Dottoranda

Erika Giangrisostomi

il Supervisore

Claudio Masciovecchio

Dottorato in Fisica – Università di Trieste
XXVI ciclo
Emiliano Munari

End year report - 2012

Galaxy clusters are complex systems, the study of which allows us to get information on the evolution and structure of the Universe. They are the subject of my research activity.

In this second year of my PhD activity, I have completed the study started in the first year. Through cosmological N-body and hydrodynamical simulations I have studied the statistical properties of galaxy clusters, such as density profile, radial distribution of substructures and galaxies, as well as dynamical properties such as velocity distributions of dark matter (DM) particles, DM substructures and galaxies, anisotropy of orbits and tidal disruption phenomena. The aim of this work is finding the link between the kinematics of objects in a galaxy cluster and the mass of the cluster itself. The mass is a fundamental property to put constraints on the cosmological models. The main problem is that the mass is not a directly observable quantity, so we need an observational "proxy" to infer it. The results of this work are presented in a paper submitted to the journal Monthly Notices of the Royal Astronomical Society (MNRAS).

Along with the aforementioned work on numerical simulations, I have also worked on real data coming from observations of galaxies in clusters. As explained above, mass is a fundamental quantity but is not directly observable. Therefore I have used different techniques to recover the mass profile of a real nearby cluster, A2142, from direct observables, namely the spatial and line of sight velocity distributions of the galaxies belonging to that cluster. The different techniques rely on some assumptions about the geometry of the system, usually considered spherically symmetric, and on the shape of the galaxy velocity distribution. Before these techniques are applied to the observational data, these must be treated in such a way as to get rid of observational biases, such as the removal of contaminant galaxies along the line of sight that appear in the cluster region only because of projection. The cluster mass profile determinations obtained via the different techniques are compared and found to be consistent. My own determinations are then compared with independent determinations from the literature, based on the hydrostatic equilibrium condition of the intra-cluster hot gas, and on the gravitational distortion of background galaxies induced by light path deformation by the cluster

potential ('weak lensing' technique). Combining the results from different methods is crucial to reduce the possible systematics as much as possible. I thus established the mass profile for A2142 in a very robust way. I have then used this mass profile to obtain information about the anisotropy of the orbits of galaxies, which is an important information to understand the formation process of this type of structures, and to derive constraints on the hierarchical model of structure formation (a direct consequence of the standard cosmological model). The results of this work will be presented in a paper to be submitted to Astronomy and Astrophysics in early 2013.

Along with the work I have just described, I have just started a new project that will presumably last for the third year. I am using a catalog of galaxies built from simulations, that can be adapted to mimic real observational survey, in particular, the planned ESA space survey 'Euclid'. The target of this project is to understand how observational effects (such as projection, limiting flux sensitivity, incorrect and incomplete identification of cluster members, etc.) can alter or even limit our determination of the mass of galaxy clusters. This work is meant to be a link between the other two works, as it makes use of simulated data, but treated as real observed data, and it is aimed to provide a helpful tool for observers in view of the scientific exploitation of Euclid data.

Below I report the list of the exams:

F. Longo	Gamma-ray bursts	6 ore
F. Matteucci	Nucleosynthesis and chemical evolution of galaxies	14 ore
S. Borgani	Formation of cosmic structures	16 ore
G. Granato – P. Monaco	Galaxy formation	10 ore
S. Leach	Scientifing computing in astronomy	10 ore
S. Leach	Statistics in astrophysics	6 ore
G. Ghirlanda	Data analysis and statistical methods	6 ore
G. De Zotti	Extragalactic astrophysics	16 ore

List of shools I have attended:

Scuola di Astrofisica “Francesco Lucchin”, XI ciclo, III corso, held in Bertinoro, 8-13 May 2011.

Summer School on Cosmology – ICTP 16-27 July 2012

Raffaello Bianco: Year-End Report 2012

Report

In the first year we started investigating an innovative and promising ap- proach to topological order. In this first work we addressed the Chern num- ber of a two-dimensional insulator and we showed that the corresponding topological order can be mapped by means of a topological marker, defined in coordinate space, and which may vary in different regions of the same sample. This work has been published by Phys.Rev. B as a Rapid Commu- nication [1].

In this second year we have adopted the same local approach to study the magnetization effects in insulators at zero temperature. We found a local formula for the bulk magnetization. This formula, if applied to a crystal in thermodynamic limit, returns the well known results obtained working in the reciprocal space with Periodic Boundary Conditions. But thanks to its local nature our formula can be also used in a more general context (disordered materials and heterojunctions) irrispective of the Boundary Conditions used (either Open or Periodic Boundary Conditions). This work is currently under PRL's referees review [2].

In all our works, besides the analytical formulations, we have tested our findings providing many simulations over a model Hamiltonian.

[1] R. Bianco and R. Resta, Mapping topological order in coordinate space, Phys. Rev. B, 84,241106

[2] R. Bianco and R. Resta, Are polarization and magnetization really bulk properties?, Submitted to Phys. Rev. Letters

Schools and Workshops attended in 2012

- CECAM-HQ-EPFL, Topological Insulators and Non-Perturbative Spin- Orbit Coupling, Lausanne, January 9, 2012 - January 11, 2012

RELAZIONE SULL'ATTIVITA' DIDATTICA E DI RICERCA SVOLTA DURANTE IL SECONDO ANNO DI DOTTORATO

SUPERVISORE: ANGELO BASSI DOTTORANDO: DONADI SANDRO (CICLO XXVI)

Durante il secondo anno di dottorato ho svolto attività di tipo didattico e di ricerca, sotto la supervisione del Dr. Angelo Bassi. Le attività didattiche sono state:

- Una missione dal 15/02/2012 al 29/02/2012, finanziata dalla COST Action MP1006 (Fundamental Problems in Quantum Physics),al "Tata Institute of Fundamental Research", Mumbai (India), per una collaborazione di ricercacol Prof. Tejinder Singhed il Dott. Kinjalk Lochan. Quest'esperienza mi è stata utile per approfondire le mie conoscenze riguardo le implicazioni cosmologiche dei modelli di riduzione dinamica.

- Partecipazione, dal 24/04/2012 al 27/04/2012, alla conferenza "Quantum Malta 2012: Fundamental Problems in Quantum Physics" tenutasi a Malta e organizzata dal Dott. Angelo Bassi, il Prof. Detlef Dürr ed il Dott. Jackson Said in collaborazione con la COST Action "Fundamental Problems in Quantum Physics". In quest'occasione ho presentato un poster riguardante il mio lavoro di ricerca sull'emissione di radiazione nei modelli di riduzione dinamica.

- Partecipazione, dal 20/06/2012 al 22/06/2012, al workshop "Open Problems in Quantum Mechanics" tenutosi a Frascati (Roma) e organizzato dalla Prof.ssa Catalina Curceanu, dal Prof. Nino Zanghi, dal Dott. Angelo Bassi e dal Dott. Bassano Vacchini. In tale occasione ho potuto esporre i risultati ottenuti negli ultimi due anni a proposito dell'oscillazione delle particelle nei modelli di riduzione dinamica.

- Una missione dal 29/09/2012 al 24/12/2012, tramite fondi INFN, al Dipartimento di Matematica della University of California - Davis, per proseguire la mia attività di ricerca con la collaborazione del Dott. Dirk - André Deckert. Quest'esperienza si sta rivelando molto utile sia dal punto di vista della ricerca in sé sia perché è un'ottima occasione per migliorare il mio inglese. Inoltre il 29/11/2012 avrò l'occasione di fare un seminario all'università sui modelli di riduzione dinamica.

Riguardo eventuali corsi da seguire e relativi esami, quest'anno non ne ho seguito alcuno in quanto, già con i corsi dell'anno scorso, avevo svolto più delle 80 ore di lezione richieste dalla scuola.

L'attività di ricerca svolta quest'anno è stata il naturale proseguimento di quella svolta durante il primo anno di dottorato. Essa ha coinvolto principalmente due argomenti: lo studio di una formula consistente riguardo l'emissione di radiazione nei modelli di riduzione dinamica (noti anche col nome di modelli di collasso) e quello del fenomeno dell'oscillazione delle particelle in questi modelli.

Entrambe queste linee di ricerca hanno l'obiettivo di cercare fenomeni in cui sia possibile testare i modelli di riduzione dinamica. Infatti tali modelli, al fine di risolvere il problema della misura, ipotizzano una dinamica differente da quella della meccanica quantistica. Più precisamente essi assumono l'esistenza di un noise che interagisce con ogni sistema fisico e che tende a indurre il collasso della funzione d'onda per tale sistema. Questa differente evoluzione dei sistemi fisici si riflette in differenti predizioni rispetto a quelle date dalla meccanica quantistica e quindi i modelli di riduzione dinamica sono, almeno in linea di principio, verificabili sperimentalmente.

Tra i possibili fenomeni finora proposti per testare i modelli uno dei più promettenti è quello dello studio dell'emissione di radiazione elettromagnetica. L'idea fondamentale è che una conseguenza (indiretta) dell'azione del noise su sistemi fisici costituiti da particelle dotate di carica elettrica, è di far si che questi sistemi emettano radiazione. In particolare, dal momento che il noise agisce su qualunque sistema fisico, i modelli di collasso predicono emissione di radiazione anche per sistemi che, nella meccanica quantistica standard, non irradiano. In questi due anni ci siamo concentrati nello studio della particella libera e quello di una particella immersa in un potenziale armonico. Lo scopo è quello di trovare una formula per il rate di emissione per grandi tempi. Tale calcolo era già stato fatto in diversi lavori presenti nella letteratura, ma essi ottenevano risultati differenti. Il principale risultato del lavoro dell'anno scorso è stato quello di fare luce sull'origine di queste differenze: in particolare si è capito come mai, quando si calcola il rate per grandi tempi, il conto perturbativo dove si trattano il campo elettromagnetico (in seguito campo EM) ed il noise al prim'ordine dia un risultato differente da quanto si ottiene facendo un calcolo esatto e prendendo solo alla fine il risultato al prim'ordine. Chiarire questo è fondamentale perché il nostro obiettivo finale è calcolare il rate di emissione utilizzando il modello CSL (Continuous Spontaneous Localization), il quale permette solo di fare calcoli approssimati.

Osservando la formula esatta per il rate di emissione a tempi finiti è possibile individuare due termini: uno costante, che è presente anche nel limite per grandi tempi ed uno transiente, che va a zero per grandi tempi. Questo termine transiente contiene un esponenziale decrescente il cui esponente è diverso da zero solo quando il campo elettromagnetico viene calcolato al second'ordine o superiori. Quindi se ci si limita a fare un calcolo perturbativo in cui si considera il campo EM solo al prim'ordine, questo esponenziale diventa semplicemente 1 e, anche nel limite grandi tempi, il termine transiente sopravvive. Ciò significa che è necessario fare calcoli perturbativi trattando il campo EM ad ordini superiori al primo. Questo è stato il tema del mio lavoro di ricerca di quest'anno sull'emissione di radiazione. E' risultato fin da subito evidente che un calcolo perturbativo diretto di tutti i contributi fino al second'ordine è, da un punto di vista pratico, ingestibile: vanno considerati all'incirca una sessantina di diagrammi di Feynman differenti. Abbiamo allora provato a studiare il problema usando una doppia picture d'interazione, in modo da provare a trattare separatamente l'interazione EM dal noise, ma anche questo approccio comporta il calcolo di un numero notevole di contributi. Un tentativo differente è stato fatto, provando ad introdurre una massa crescente nel tempo nell'Hamiltoniana e facendo i calcoli al prim'ordine con tale Hamiltoniana. L'idea era quella di simulare lo smorzamento nel moto della particella dovuto alla reazione di radiazione (che è un effetto dell'interazione della particella col campo EM visibile solo ad ordini superiori al primo) introducendo questa massa crescente nel tempo. Comunque nemmeno questo tentativo è andato a buon fine. Infine abbiamo provato a fare calcoli perturbativi utilizzando la matrice densità. Questo approccio ha principalmente due vantaggi: da un lato si hanno equazioni col noise già mediato, dall'altro in queste equazioni compaiono molti commutatori, cosa che aiuta a semplificare il calcolo. In un primo momento abbiamo usato questa tecnica trattando sia il campo EM che il noise perturbativamente, ma in tal caso se si vuole andare almeno al second'ordine col campo EM il calcolo è ancora troppo complicato per essere portato a termine. Successivamenteabbiamo provato a usare questa tecnica trattando quasi esattamente il campo EM (infatti, utilizzando solo l'approssimazione di dipolo, è possibile, nella QED non relativistica, risolvere esattamente le equazioni di Heisenberg per gli operatori) e perturbativamente il noise. E, sorprendentemente, il calcolo è stato relativamente semplice ed è risultato consistente col risultato esatto (per grandi tempi i termini transienti vanno a zero). Quindi finalmente abbiamo trovato una tecnica che permetta di fare calcoli perturbativi in accordo coi risultati esatti. Il passo successivo sarà di applicare questa tecnica di calcolo al modello CSL.

L'altra linea di ricerca su cui mi sono concentrato riguarda l'oscillazione delle particelle nei modelli di riduzione dinamica. Avevamo già svolto questo calcolo l'anno scorso per i neutrini ed era risultato che,

rispetto alla formula prevista dalla meccanica quantistica, nei modelli di collasso il termine oscillante viene soppresso esponenzialmente. Si era anche trovato però che tale soppressione è così debole da non poter essere osservata sperimentalmente. Quest'anno abbiamo esteso il calcolo anche per i kaoni ed abbiamo generalizzato il nostro studio anche al caso di kaoni in stato entangled. In entrambi i casi abbiamo trovato che l'effetto dei modelli di collasso è di sopprimere il termine oscillante, in modo più forte di quanto non avvenga per i neutrini,ma ancora troppo piccolo per poter essere osservato in alcun esperimento.

Infine, dal momento che anche la decoerenza tende a sopprimere l'oscillazione delle particelle, abbiamo cercato di capire come quantificare tale effetto per confrontarlo con quello ottenuto dai modelli di collasso senza però, per ora, riuscirci. La principale difficoltà sta nel fatto che non vi sono, nella letteratura, molti lavori in cui viene data una stima della decoerenza: nella gran parte dei lavori si suppone solo che essa sia presente, che sia quantificata da uno o più parametri e se ne studiano gli effetti in funzione di tali parametri, che però non è chiaro come calcolare. In più, nei pochi lavori in cui questi parametri vengono effettivamente calcolati, questo viene fatto per mezzo di passaggi matematici che non ci risultano ancora chiari.

LISTA DEI LAVORI IN PUBBLICAZIONE

Il lavoro di ricerca svolto quest'anno sull'oscillazione dei neutrini e dei kaoni è stato esposto in tre differenti pubblicazioni. Tali pubblicazioni sono ancora al vaglio dei referee ma i preprint possono essere trovati sul sito http://arxiv.org/. Nel seguito riporto la lista di tali pubblicazioni:

1) Titolo: "The effect of spontaneous collapses on neutrino oscillations"
   Autori:"S. Donadi, A. Bassi, C. Curceanu, L. Ferialdi"
   Rivista dove è stato inviato il lavoro e riferimento su arxiv: Physical Review D, arXiv:1207.5997;

2) Titolo: "Are Collapse Models Testable via Flavor Oscillations?"
   Autori: "S. Donadi, A. Bassi, C. Curceanu, A. Di Domenico, B. C. Hiesmayr"
   Rivista dove è stato inviato il lavoro e riferimento su arxiv: Physical Review D, arXiv:1207.6000;

3) Titolo: "Testing Collapse Models with Neutrinos, Mesons and Chiral Molecules"
   Autori: "M. Bahrami,S. Donadi, L. Ferialdi, A. Bassi, C. Curceanu, A. Di Domenico, B. C. Hiesmayr"
   Rivista dove è stato inviato il lavoro: Physical Review Letters.

LISTA DEI TALK:

Nel seguito la lista dei talk che ho fatto quest'anno:

1) Titolo: "Particle oscillations in collapse models"
   Luogo e Data: Frascati (Roma) il 21/06/2012 durante il workshop "Open Problems in Quantum Mechanics";

2) Titolo: "Is Quantum Theory Exact? An introduction to Collapse Models and their new predictions which differ from standard Quantum Mechanics."
   Luogo e Data: Davis (California) il 29/11/2012.

Davis, California 23/11/2012 Sandro Donadi

Candidate: **Fabrizio ORLANDO**

Thesis title: *"Physical properties and functionalization of low-dimensional materials"*
Supervisor: Alessandro BARALDI
Co-supervisor: Silvana LIZZIT

Report on the research activity of the 2nd year

During this second year my research activity was focused on the characterization of the electronic and structural properties of epitaxial graphene (GR) grown on transition metal surfaces and, in particular, on the possibility of tailoring the electronic properties of GR through intercalation of atomic species.
The mass-production of GR-based electronic devices requires the synthesis of high-quality, i.e. with low defects concentration, and large-area carbon layers. This can be achieved by different routes, among which the epitaxial growth on transition metal surfaces is one of the most promising ones. However, this method has the disadvantage of a conductive substrate, rendering the conduction through GR irrelevant. The problem can be solved by transferring the GR layer on an insulating substrate, such as silicon oxide (SiO_2). However, the transfer process itself, although possible, introduces a large amount of defects in the GR lattice, inevitably leading to a strong decrease in carrier mobility. During the first part of this year I've been involved with the development of a novel method to electrically decouple epitaxial GR from its metal substrate. In particular, we demonstrated that is possible to insulate electrically GR from the metal, a Ru(0001) crystal surface in the specific case, without the need to transfer the GR layer [1]. This has been achieved by growing an insulating SiO_2 layer directly at the interface between GR and the metal. The procedure consists of three distinct phases. In the first step, epitaxial GR is grown on the clean Ru(0001) surface through adsorption and successive dissociation of ethylene (C_2H_4) at high temperature. The sample is then exposed to silicon, that intercalates below GR and forms a binary compound - a so-called silicide – with the metal substrate. In the last step, the system is exposed to molecular oxygen that also intercalates below GR leading to the progressive oxidation of the silicide, that converts into a SiO_2 layer. Each step of the reaction has been followed by high-energy-resolution X-ray photoelectron spectroscopy with synchrotron radiation. The electrical insulation was verified by performing lateral transport measurements at different locations of the GR layer. These measurements showed resistance values typical of a two-dimensional system, meaning that the transport is dominated by GR and not by the underlying metal. These results have been commented on the Research Highlights of Nature Nanotechnology in a paper titled *"Graphene: Silica in between"* (Nature Nanotech. 7, 613 (2012)).
Epitaxial GR frequently exhibits a strong interaction with the substrate. In some cases, this interaction can be sufficiently strong to prevent the typical electronic properties of GR from being established. This issue, of obvious relevance for future GR-base electronic devices, was the second main object of investigation during this year. In particular, we concentrated on the decoupling of epitaxial GR grown on the Ir(111) surface, obtained through intercalation of molecular oxygen [2]. The choice fell on Ir (111) because on this surface large-scale GR layers with low defects concentration can be grown. Therefore, it follows that the decoupling of this system allows us to obtain a high structural quality GR layer that is weakly interacting with the metal substrate. The experimental results indicate that an efficient intercalation of oxygen takes place around 500 K, but only at a relatively high oxygen pressure (5×10^{-3} mbar). After complete intercalation, the narrow GR component of C 1s core level spectrum shifts towards lower binding energies, corresponding to a charge transfer from GR to oxygen. In addition, the valence band structure loses the characteristic features of the GR-Ir interaction while the linear dispersion with a single Dirac cone typical of quasi-freestanding GR is restored. The process is partly reversible: oxygen can be removed by heating the

system to a temperature of 600 K. The GR-metal interaction is then re-established but, in parallel, a small amount of carbon is lost suggesting the creation of defects in the GR layer. In conclusion, these results demonstrate that intercalation of oxygen is an effective method to decouple an extended GR layer from its metal substrate.

The realization of the above-mentioned experiments, conducted mainly at the SuperESCA beamline of the synchrotron light source Elettra, took advantage of the international collaboration with the research group headed by Prof. Ph. Hofmann {Aarhus, Denmark).

I'm also involved in the ongoing experimental investigation on other GR-related systems, e.g. intercalation of GR/Ir{111) and GR/Ru{0001) with Zr atoms, and study of epitaxial GR growth on the Ni_3Al{111) surface.

Publications:

[1] S. Lizzit, R. Larciprete, P. Lacovig, M. Dalmiglio, **F. Orlando,** A. Baraldi, L. Gammelgaard, L. Barreto, M. Bianchi, E. Perkins, and P. Hofmann, *"Transfer-Free Electrical Insulation of Epitaxial Graphene from its Metal Substrate",* Nano Letters 12,4503 {2012).

[2] R. Larciprete, S. Ulstrup, P. Lacovig, M. Dalmiglio, M. Bianchi, F. Mazzola, L. Hornek<Er, **F. Orlando,** A. Baraldi, P. Hofmann, and S. Lizzit, *"Oxygen Switching of the Epitaxial Graphene-MetalInteraction",* ACS Nano **6,** 9551{2012).

[3] **F. Orlando,** R. Larciprete, P. Lacovig, I. Boscarato, A. Baraldi, and S. Lizzit, *"Epitaxial Growth of Hexagonal Boron Nitride on lr(111)",* The Journal of Physical Chemistry C **116,** 157 {2012).

Plano of studies:

- "Critical Phenomena" {G. Pastore) 48 hours
- "Advanced Imaging and Spectromicroscopy methods for chemical and structural characterization of micro- and nano-materials" {M. Kiskinova) 12 hours
- "Molecular self-assembling and nanostructures" {A. Morgante) 20 hours

for a total of 80 hours of educational training. The results of the exams can be found in my personal Transcript of Record {in attachment). The exam of "Critical Phenomena" was held on the second academic year because at the end of the first year the course was still in progress.

Attended schools:

"Quantum phenomena in graphene, other low-dimensional materials and optical lattices" organized by CNR-DMD in Erice {TP), 26 July - 3 August 2011. Poster entitled: *"Epitaxial Growth of Hexagonal Boron Nitride on lr(111}".*

Trieste, 20/11/2012

Approved by: Alessandro Baraldi

Report 2012

Simona Salvini

Research activities

During the first part of the year I attended the courses listed below and I took the relative exams.
I have worked on my reasearch project under the supervision of Prof. Daniele Treleani. The topic of my project is in the framework of the phenomenology of the multipartonic interactions (MPI) in hadron-hadron collisions. In particular, I focused on new theoretical aspects of MPIs and related phenomenological issues, as for example the Genearalized Parton Distributions, which are off-diagonal partonic distributions, and the jets production at hadronic colliders. Moreover I have been working on a numerical implementation of our theoretical model for MPIs in order to be able to simulate it. For this reason I learnt how to use the MonteCarlo integration routine VEGAS and MADGRAPH.

VEGAS evaluates multidimensional integrals (in my case, 10-dimensional integrals). Since it is based on MonteCarlo methods, it generates a large number of configurations which might be used to obtain other distributions, related to different observables. My codes exploit VEGAS to estimate some integrated cross sections in regions of the phase space similar to that one defined by one of the calorimeters of the LHC.
MADGRAPH is a generator of partonic matrix elements.

After some preliminary tests on VEGAS, I wrote a code that evaluates the differential cross section in the transverse momentum for the dijet production in order to understand how to interface the output generated by MADGRAPH. What I obtained is in agreement with the experimental data from Tevatron. Then I wrote a code evaluating the integrated cross section for the production of 4 jets at the LHC. In this case the multiparton interactions are implemented. All these codes are written in C++ programming language.

Courses

Electroweak and Strong Interactions, Prof. S. Petcov, Prof. G. Martinelli (60h)
- grade: 27/30

Beyond the Standard Model, Prof. A. Romanino (60h)
- grade: “buono” (good)

Schools

I attended the XVIth LNF Spring School Bruno Touschek at the "Laboratori Nazionali INFN di Frascati" (7-11 May 2012). I gave a talk at the "Young Researchers Workshop" related to the School.
Next year I will partecipate in another summer school.

Università degli Studi di Trieste
Dottorato di ricerca in Fisica – ciclo XXVI

Relazione dell'attività svolta da Daniele Tavagnacco durante il secondo anno di dottorato (2012)

Analisi e Caratterizzazione di Effetti Sistematici per lo Studio delle Anisotropie del Fondo Cosmico a Microonde con lo Strumento Planck LFI

Supervisore: dott.ssa Anna Gregorio

Il lavoro di dottorato del dottorando Daniele Tavagnacco si colloca nell'ambito dell'analisi dei dati di Planck LFI (*Low Frequency Instrument*). PLANCK è la terza missione medium–sized (M3) del programma scientifico dell'ESA (European Space Agency, www.esa.int/Planck) "Horizons 2000". Con il suo telescopio da 1.5 metri di diametro e con i due strumenti a bordo (LFI a responsabilità italiana e HFI a responsabilità francese) osserva simultaneamente il cielo in nove bande di frequenza tra 30 e 857 GHz con una sensibilità, risoluzione angolare e copertura in frequenza mai ottenuta in precedenza.

Il satellite, lanciato il 14 maggio2009, dopo una prima fase di calibrazione, da agosto è posizionato in un'orbita di Lissajou attorno al punto L2 del sistema Terra - Sole per osservare volte l'intera sfera celeste in circa tre anni di osservazioni continue. Attualmente Planck sta svolgendo la settima *survey* del cielo. Le mappe del cielo a microonde che saranno prodotte da LFI e da Planck in generale rappresentano un progresso scientifico cruciale nella determinazione di tutti i parametri cosmologici principali, non-degeneri rispetto alla CMBA (Cosmic Microwave Background Anisotropy).

L'atività svolta consiste nell'analisi di due dei passi che costituiscono la pipeline di riduzione dei dati scientifici dello strumento LFI: la rimozione del segnale di *spikes* elettroniche e la calibrazione fotometrica.

Le *spikes* elettroniche rappresentano un effetto sistematico per lo strumento LFI dato dal *cross-talk* tra le linee di acquisizione di *housekeeping* e quelle del segnale scientifico. Questo effetto si manifesta come un segnale di onda quadra sincrono con il tempo di bordo del satellite, puramente additivo, che influenza in modo uniforme tutte le linee di acquisizione dello strumento LFI. Questo segnale, deve necessariamente essere caratterizzato e rimosso via *software* precedentemente alla produzione delle mappe del cielo. Il lavoro svolto consiste nel verificare la stabilità temporale durante l'intera missione del template di onda quadra rimosso dai dati. Sono state controllate variazioni di fase che di ampiezza del segnale. In questo modo è possibile verificare la stabilità di funzionamento dello strumento in generale e stimare un possibile residuo segnale di *spikes* nei dati scentifici successivo alla rimozione del template. Dalla stima del segnale residuo nei dati scientifici è possibile valutare quanto l'effetto sistematico delle *spikes* elettroniche incida sul risultato finale dei dati di LFI.

La calibrazione fotometrica rappresenta la conversione dei dati da voltaggi a temperatura osservata. La calibrazione per Planck segue una procedura simile a quella utilizzata da WMAP: la modulazione di dipolo della temperatura osservata nel CMB data dallo spostamento del sistema solare rispetto al sistema di riferimento del CMB è confrontata con la modulazione del segnale misurato dallo strumento.

Dal rapporto tra le ampiezze si ottiene il fattore di "*calibrazione relativa*" dello strumento per lo specifico puntamento. Due limitazioni di questo metodo sono date dall'incertezza associata alla direzione e intensità del dipolo e dai puntamenti dello strumento che coinvolgono zone in cui il dipolo è minimo. La calibrazione assoluta dello strumento sarà ottenuta successivamente applicando lo stesso metodo alla modulazione annuale del CMB data dall'orbita della Terra attorno al Sole e quindi legata solo a costanti fondamentali. L'obiettivo è quello di raggiungere una calibrazione assoluta migliore dell'1%.

La verifica del funzionamento del metodo di calibrazione relativa consiste nel ripetere la stessa procedura utilizzando quantità interne allo strumento. In particolare il fattore di calibrazione è calcolato confrontando le variazioni della tensione del canale che si occupa della misura della temperatura del corpo nero di riferimento all'interno di PLANCK con le fluttuazioni in temperatura del corpo nero di riferimento tramite i termometri a bordo dello strumento. Dal confronto tra le curve di calibrazione ottenute con questi due metodi è possibile studiare la stabilità del funzionamento dello strumento. Inoltre è possibile calcolare la temperatura di rumore dello strumento in volo che, confrontata con la temperatura di rumore otenuta durante i test a terra precedenti il lancio della missione, fornisce un'altra indicazione sulla stabilità di funzionamento dello strumento.

Schools:

Second Sardinian Summer School in Astrophysics – Technology in radio astronomy and space science, 2012

Conferences:

Astrophysics from the radio to the sub-millimeter. Planck and other experiments in temperature and polarization, Bologna, 2012

Cicle: XXVI

Dottorando: Battistoni Andrea

Supervisor: Dr. Bencivenga Filippo

Object: year-end report

During the first part of this second year Andrea has contributed to complete the data analysis concerning the characterization of a new high-resolution UV interferometer device (results published in Review of Scientific Instrument 83, 103102 (2012)). Andrea has also improved the methodology, based on the exploitation of special spatial filters conceived by himself, for acquiring inelastic (Brillouin) light scattering at any scattering angle without artefacts due to the finite numerical aperture of collection optics.

Andea also learned the time resolved (pump-probe) experimental technique usually referred to as “transient grating”. In particular, exploiting two different experimental configurations it has been possible to collect both low resolution (0.1 nanosecond) wide range (> microsecond) and high resolution (0.1 picosecond) short range (a few nanoseconds) measurements, in order to determine the time dependence of the spectrum in 7-8 decades in time. In summary, the combination of the transient grating method and inelastic (UV-Visible) Brillouin ligth scattering at variable scattering angle permitted to carry out an effective broadband acoustic spectroscopy in a wide wavevector and time/frequency range.

Andrea has also designed and tested a device, compatible with the severe geometrical constraints of the aforementioned experimental techniques, able to control the sample temperature in the 200-400 K range.

During the second part of the year Andrea has employed the acquired skills to start a set of measurements on two prototype liquids: glycerol and acetonytrile. The former is usually considered as an archetype of “simple liquid”, being virtually free from intramolecular degrees of freedom, while the latter shows molecular degrees of freedom of both vibrational and orientational nature. While the interplay between intramolecular vibrations and acoustic dynamics in acetonitryle has been already discussed in litterature, possible effects of molecular orientations on acoustic properties has not yet been studied. Andrea is currently using the broad acoustic spectroscopy to investigate on the effects of the molecular dipole (essentially related to orientational dynamics) on the structural relaxation process, which is instead associated to the translationa (intermolecular) degrees of freedom and drives the dynamic transitions between the liquid phase and the glassy or gaseous ones. Complementary inelastic scattering measurements on this sample have been carried out both at the IUVS beamline (Sincrotrone Trieste) and at the GHOST laboratory (Universita' di Perugia). If compliant with the schedule of the PhD course, such kind of study will be systematically extended to other samples characterized by different values on molecular dipole.

Additionally, Andrea actively participated at the first commissioning experiments of the EIS-TIMEX end station, recently installed at the FERMI@Elettra free electron laser facility (results published in New Journal of Physics 14, 113009 (2012)), while in the near future he will participate at the commissioning of the EIS-TIMER end station, which is the first experimental facility able to provide transient grating measurements at nanometer scale.

In this second year of the PhD course Andrea participated at the following international schools:

- Synchrotron radiation and FEL based methods and their multidisciplinary applications (ICTP, Trieste, Italy)
- X-FEL school 2012 (Annency, France)

Best regards,

Filippo Bencivenga

End of the year report (2012)

PhD student: Valentina Luciana Grieco
Supervisor: Professor Francesca Matteucci Co-Supervisor: Doctor Francesco Longo

Supernovae Ib/c are likely to be associated to long GRBs, therefore it is important to compare the SN rate in galaxies with the GRB rate.
Since the Type Ib/c SN rates study is based on the star formation rates we need to compute the star formation history of different morphological type of galaxies (ellipticals, spirals, irregulars).
In particular, ellipticals should have suffered an intense and short star formation episode whereas spirals and irregulars should have had milder star formation rates (SFR) and are still forming stars now.

While in the first year of PhD, we focused on computing the chemical evolution of irregular and spiral galaxies and on the calculation of the SNIb/c rate in relation to the GRB rate (the results of this work are now published on MNRAS), during the second year of PhD we worked on spheroidal galaxies and in particular on the Milky Way bulge taken as a typical spheroidal galaxy. Our final aim is to reproduce the caractheristics of the stellar populations observed in the bulge and to predict the Type Ib/c SN rate for a typical spheroidal in order to compare with the GRB rate at high redshift.
The recent although controversial discovery of two main stellar populations in the Galactic bulge, one metal-poor with a spheroid kinematics and the other metal-rich with a bar-like kinematics, suggests a revision of the classical model for bulge formation.
We computed in detail the chemical evolution of the Galactic bulge in order to explain the existence of the two main stellar populations. We also explored the possible existence of spatial abundance gradients inside the bulge.
To do that, we adopted a chemical evolution model that follows the evolution of several chemical species (from H to Ba) and took into account both infall and outflow of gas. We assumed that the metal-poor population formed first and on a short timescale, in agreement with previous models, while the metal-rich population formed later and out of the enriched gas either left from the formation of the previous one or originating from the inner disk. We predicted the stellar distribution functions for Fe and Mg, the mean ⟨[Fe/H]⟩ and ⟨[Mg/H]⟩ as well as the [Mg/Fe] vs. [Fe/H] relations in the two stellar populations. Then, we considered the case in which the metal-poor population could be the result of sub-populations formed with different chemical enrichment rates. In particular, the population close to the Galactic center could have evolved very fast, while the more external population could have evolved more slowly, in agreement with the dissipational gravitational collapse scenario.
When compared with observations, our results confirm that the old more metal-poor stellar population formed very fast (on a timescale of 0.1–0.3 Gyr) by means of an intense burst of star formation coupled with an initial mass function flatter than in

the solar vicinity, but not as flat as suggested in previous works. The metal-rich population, instead, should have formed on a longer timescale (~3 Gyr). We predicted differences in the mean abundances of the two populations that can be interpreted as a metallicity gradient. We also predicted possible gradients for Fe, O, Mg, Si, S, and Ba between sub-populations inside the metal-poor population itself.

In order to investigate the correlation between SNIb/c and GRB in a typical spheroid we computed the Type Ib/c SN rate in the Milky Way bulge starting from the star formation history predicted from our chemical evolution model. We adopted both single Wolf-Rayet stars (namely stars which have lost most of their H and He envelope) and massive binaries as SNIb/c progenitors and considered a dependence of the progenitors on the initial metallicity. In fact, the mass loss in massive stars ($M > 10\ M_{sun}$) increases with the initial metallicity in a way that the progenitors mass decreases with increasing metallicity.
We found that the SNI b/c rate has a maximum at 0.06 Gyr corresponding to z=7.

- PhD School:

National PhD School of Astrophysics “F.Lucchin”
XI Cyrcle 4th Course – E.Maiorana Centre, Erice (Italy)
Title: The transition from low-mass stars to planets galaxy bulges
September 4-9, 2011

PhD School:
I NAT Lectures On Astrophysics – San Paolo (Brazil)
Title: Collapsing or Collading Systems: solving the galactic puzzle

- Papers published:

Grieco, V. et al. 2012, A&A,548, A60
Title: Chemical evolution of the Galactic bulge: different stellar populations and possible gradients

Grieco, V. et al. 2012, MNRAS, 423, 3049
Title: Metallicity effects on cosmic Type Ib/c supernovae and gamma-ray burst rates

- Conferences 2012

- 07.05.2012 - 11.05.2012, Fermi/Swift GRB conference, poster session
Title: Metallicity effects on cosmic Type Ib/c SN and GRB rates
- 29.05.2012 - 31.05.2012, Bologna, GREAT ESF-sponsored WORKSHOP
Title: Chemical evolution of the Galactic bulge: different stellar populations and possible gradients

PIANO DI STUDI

F. Matteucci	Nucleosynthesis and chemical evolution of galaxies	14 ore	Fatto
G. Granato – P. Monaco	Galaxy formation	10 ore	Fatto
S. Leach	Scientifing computing in astronomy	10 ore	Fatto
S. Leach	Statistics in astrophysics	6 ore	Fatto
G. Ghirlanda	Data analysis, statistics	6 ore	Fatto
G. De Zotti	Extragalactic astrophysics	16 ore	Fatto
A. Bressan	First stars	4 ore	Fatto
A.Gregorio – M.Messerotti	Fisica delle Interazioni Spazio Geospazio	20 ore	Fissato per il 6 dic 2012

Università degli Studi di Trieste
Physics Doctoral School XXVII
cycle

2012 Year-end Report

Giancarlo Panizzo

November, 20th 2012

Contents

1 Brief Research Activity Report - 2012

The main research topics of 2012 has been two: Z polarisation asymmetry in bZ associate production at LHC (A_Z^{pol}) and $b\,g \to b\,H0$ associate production in MSSM at LHC.

A_Z^{pol} We have performed for the first time[1] a Leading Order complete study of the Polarisation Asymmetry of the Z boson in bZ associate production

$$A_Z^{pol} \equiv \frac{\sigma(Z_R) - \sigma(Z_L)}{\sigma(Z_R) + \sigma(Z_L)}.$$

In that we have shown its deep connection to another asymmetry parameter, A_{FB}^b, the only measured observable still in some contradiction with its SM prediction. With the calculation of A_Z^{pol} at LHC, we have proved the fundamental role this observable can take: it would provide the possibility of an independent verification of the possible SM discrepancy one should find imposing consistency with previous measurements of A_{FB}^b (that can reach the relative percent size). In this contest, we have shown that its definition endows it with strong stability under theoretical uncertainties (Parton Distribution Function set, scale variations), highly increased respect to simple cross section-like observables.

Study of MSSM $b\,g \to b\,H0$ at LHC After the discovery of a SM-like Higgs Boson at LHC (hereafter h), the subsequent fundamental question is connected with its nature. Besides the direct study of its physical properties, new light on the theoretical framework embedding it can be shed by the potential discovery of new particles. In the Minimal Supersymmetric SM there are other two neutral Higgs Bosons (H ,$A0$), that can be light enough to be detected at LHC. The complete electroweak MSSM calculation at one loop of the cross section for $b\,g \to b\,H0$ (here $H0$ stands generically for a neutral Higgs Boson in MSSM) at LHC has already been performed previously[2] by our working group. But the hunt of new particles at colliders need theoretical results to be inserted in Monte Carlo simulation programs, and consequently to be higly simplified in term of computational costs. So we have studied the impact of the 1 loop contribution when a bottom quark is produced together with a Neutral Higgs Boson *other* than the one just discovered, assuming the latter to be identical to the SM one, in MSSM scenarios compatible with its measured mass. After a big number of simulations probing different parameter space points (both compatible with the recent discovery and accessible to LHC reach), whe have proved that, in the contest of production of a bottom quark in association with H, $A0$ at LHC, it is completely safe to simplify the entire 1 loop electroweak calculation retaining only the simple Born approximation, expecially in view of the experimental accuracy foreseen.

2 Approved plan of studies

Here the approved plan of studies. The courses already taken of course has been already

Professor	Title of the course	Period	Hours amount
L. Lanceri	Flavour e violazione di CP	17-21th december 2012	12 h
M. Bertolini	Supersymmetry	jan 30th - april 6th 2012	50 h
A. Romanino	Beyond the Standard Model	jan 30th - april 6th 2012	56 h

followed, per a total amount of 106 h. The exam of '*Supersymmetry*' has been taken on May 5th 2012. The exam of '*Beyond the Standard Model*' will be taken at the very beginning of 2013, simply for the natural time needed for its preparation, taking into account both the variety of its topics and the research activity commitments. The course on CP violation, though exceeding the 80 hours requested, has been added to fullfill the requirement of one in a different area from that being subject of research.

References

[1] M. Beccaria, N. Orlando, G. Panizzo , F.M. Renard , C. Verzegnassi, *The Relevance of polarized bZ production at LHC*. Phys.Lett. B713 (2012) 457-461

[2] M. Beccaria, G.O. Dovier, G. Macorini, E. Mirabella, L. Panizzi, F.M. Renard, C. Verzegnassi, *Semi-inclusive bottom-Higgs production at LHC: The complete one-loop electroweak effect in the MSSM*. Phys.Rev. D82 (2010) 093018

ACTIVITIES OF THE FIRST YEAR
PHD SCHOOL OF PHYSICS AT UNIVERSITY OF TRIESTE
PHD STUDENT: COSTANTINO CAFARO

PRIMARY TOPIC: ANALYSIS OF RADON PRONE AREAS IN FRIULI VENEZIA GIULIA AND CONTAMINATION IMPACT ON POPULATION

Internal Supervisor: Marco Budinich
External Supervisor: Concettina Giovani

Academic duties:

The candidate attended the following phd schools (certificates in attachment):

International School on Physics of Complex Systems (SISSA);
CIRGEO school on geostatistics (University of Padua).

The classes attended are:
Geophysical Fluid Dynamics (48 hours);
Bayesian Methods (16 hours);
Fit Methods and Kalman Filters (10 hours);
Geographic Information Systems (72 hours, reduced exam)
Geology I (no exam).

Research duties:

A selected studied bibliography can be found at the end of the report.

The candidate built up a complete GeoDataBase of the measurements gathered by ARPA in the time-span of 2 years.
He performed a merging study between the data gathered from high school students and the above-quoted ARPA DB. The measurements had been collected using CR-39 detector (passive nuclear track detectors) and read (the tracks were counted) by students visually, using microscopes. On the other hand, ARPA uses an electronic device (including a microscope) with internal tools able to discern tracks from impurities and count them.
The study consisted in a complete statistical analysis of data and a check of compatibility between the two procedures (few detectors have been re-read using ARPA instrumentation). Even though the two statistical distribution were consistent as a whole, the check yielded negative results. Each reading made by students was strongly biased and differed substantially with the result produced by ARPA.
It has been decided to re-read all detectors in order to improve the DB with these new data.

For the next spring it has been scheduled a new campaign of measurement. This time the main scientific purpose will be to study the variation of indoor radon

concentration at different floors of dwellings. Subsequently it will be possible to theoretically esteem the radiation dose absorbed by FVG inhabitants.
The candidate has contributed to the definition of the sampling, developing a criterion of interest based on radon (kriging-)average in each municipality, population density and floors distribution.

With respect CCDX project, after slightly changing the purposes of the experiment, it has been chosen to conduct two different trial: a diode-based detector and a low-cost camera-based detector. The project is on hold because some materials have to be purchased.

The candidate has reported in Naples, during the annual Envirad-Splash reunion, the studies on radiations performed by Trieste Dept. of Physics in the last year (Radon indoor, Caesium in countryside, Iodine on water bodies).

References

C. Giovani, M. Garavaglia, S. Pividore, R. Villalta, *Field Comparison of two different passive radon detector*, Radiation Protection Dosimetry, (2005) Vol 113, No 4, pp. 438-441

A.Bertolo, C.Bigliotto, C.Giovani, M.Garavaglia, M.Spinella, L.Verdi, S.Pegoretti, *Spatial Distribution of indoor radon in Triveneto (Northern Italy): a geostatistical approach*, Radiation Protection Dosimetry (2009) Vol 137, No 3-4, pp 318-323

M. Kanevsky, M. Maignan, *Analysis and Modelling of Spatial Environmental Data*, (2004) EPFL Press

I. Clark, *Practical Geostatistics*,(1987)

J.P. Chiles, P. Delfiner, *Geostatistics: Modeling Spatial Uncertainty*, (2001)

M. Budinich, M. Vascotto, *The 'Radon School Survey': measuring radioactivity at home*, Science in School 14 (April 2010), pp. 54-57

J. Kemsky, R. Klingel, A. Siehl, M. Valdivia-Manchego, *From radon hazard to risk prediction-based on geological maps, soil gas and indoor measurements in Germany*, (2008), Environmental Geology

R. Borgoni, V. Tritto, C. Bigliotto, D. De Bartolo, *A Geostatistical Approach to Assess the Spatial Association between Indoor Radon Concentration, Geological Features and Building Characteristics: The Case of Lombardy, Northern Italy*, (2011), International Journal of Environmental Research and Public Health

J.M. Barros-Dios, M.A. Barrero, A. Ruano-Ravina, A. Figueiras, *Exposure to Residential Radon and Lung Cancer in Spain: A Population-based Case-Control Study*, (2002), American Journal of Epidemiology

Dottorato in Fisica – Università di Trieste
XXVII ciclo
Matteo Costanzi Alunno Cerbolini

End year report - 2012

The study of the large-scale structure (LSS) of the Universe provides a powerful tool to constrain cosmological parameters.
In the decade, thanks to next generation LSS surveys (e.g. SDSS-III, PanSTARSS, EUCLID, LSST), the large amount and the high precision of available cosmological data will constrain these parameters with great accuracy.
In the first year of my PhD, I focused on the possibility of using future data on galaxy clusters (GCs) from a Euclid-like survey to constrain the neutrino properties, such as mass and number of species.
Euclid is an ESA medium class mission selected for launch in 2020 in the Cosmic Vision 2015-2025 programme. Estimates indicate that Euclid will find of order 60.000 clusters between redshift 0.2 and 2.0, using photometric data.
Galaxy clusters are the most massive bound objects in the Universe, and their population bears the imprints of the statistical distribution of initial fluctuations, their subsequent growth and the dynamics of the collapse if dark matter halos.
Since massive neutrinos affects the growth of structures the statistical properties of these objects, such as number counts and power spectrum of their distribution, are very sensitive to the neutrino masses and their mass spectra, as been proved in previous works (e.g. Mantz et al. 2010a).
With this aim, in collaboration with my supervisors (S. Borgani M. Viel), B. Sartoris and J.Q. Xia, I developed a code, implemented in the public Monte Carlo Markov Chains sampler software CosmoMC (Lewis & Bridle, 2002), to obtain forecast errors on many cosmological parameters and in particular on neutrino masses and effective number of neutrino species.
More specifically, using this code I estimated the constraints expected from a Euclid-like survey through the analysis of the cluster power spectrum and cluster number counts.
Because of parameters degeneracy the forecast errors depend on the assumptions made on the cosmological model. To assess this effects I performed a large number of tests varying cosmological model, and in particular treating both the neutrino mass and the effective number of neutrino species as free parameters.
Constraints on cosmological parameters are significantly tightened when Euclid measurements are combined with other survey. As soon as the data from the Planck satellite on cosmic microwave background anisotropies will be released, I will also perform an analysis combining a Euclid-like GC survey with a Plank-like survey.
These results have been recently presented at the Ringberg Workshop on galaxy clusters (Münich, 19-23 November 2012) and they will be presented in a paper to be submitted to an international refereed journal in early 2013.
For the next two years I am planning to extend the aforementioned analysis taking in to account more general cosmological model (e.g. dark energy model, non-flat Universe) and improving the code in order to use information from other observables (e.g. redshift space distortion) as well as from different survey (e.g. galaxy survey). Finally, the analysis tools that I developed will be applied to observational data to determine the tightness of constraints on neutrino properties from already available data.

Below I report the approved plan of studies with the indication of the followed courses and taken exams:

Prof.	Title of the course	hours	Followed courses	Taken exams
F. Longo	Gamma Ray Bursts	6	●	●
F. Matteucci	Nucleosynthesis and chemical evolution of galaxies	16	●	●
S. Borgani	Formation of Cosmic Structures	16	●	
P. Monaco	Galaxy Formation	10	●	●
M. Viel	Structure Formation	8	●	
S. Leach	Scientific computing in astronomy	12	●	●
G. De Zotti	Extragalactic Astrophysics	16	●	●

List of shools I have attended:

Summer School on Cosmology – 16 July 2012 - 27 July 2012, ICTP Trieste.

XI School of Cosmology: Gravitational Lenses, their impact in the study of galaxies and cosmology – 17 - 21 September 2012 at the Institut d'Études Scientifiques de Cargèse (Corsica).

Report of the first year of PhD School of Physics-XXVII Ciclo

Student: Paolo Cumani

Supervisors: Anna Gregorio
Francesco Longo

November 30, 2012

Research Activity

This first year of PhD was focused mainly on the development of track reconstruction and trigger algorithms.
The project for the GAMMA-400 mission foresees a tracker composed by multiple planes of tungsten and single-sided silicon, two layers with orthogonal strips per plane, in order to detect the incident gamma-rays. The impinging gamma-ray creates an electron/positron pair which is subsequently detected by the silicon layers. By reconstructing the tracks of the pair it is possible to know the direction of the incident gamma-ray. The reconstruction code is based on a Kalman filter, similar to the one used by the AGILE collaboration. After reading the hits simulated by mean of the Geant4 toolkit, the code finds out which are the best four tracks, one per every particle and every view, among all the possibility. It then estimates the energy of each particle using the information on the multiple scattering. This estimation is used to combine the tracks in the different views in order to deduce the direction of the incoming photon and an estimate of its energy.
Along the planned orbit for GAMMA-400, the expected number of incident protons is much higher than the number of gamma-rays, of the order of 1 gamma-ray every 10^5 proton. It is very important to define an efficient trigger in order to be able to discriminate between hits created by cosmic-rays and events related to the interaction of a gamma-ray. Moreover the trigger could help to reduce the amount of data that has to be transmitted to ground. A preliminary version of the trigger was implemented in the framework of the collaboration. The results from simulations of the predicted background rate, obtained by using the model CREME96, were analysed looking for different conditions in every detector. The incoming particle is identified as a gamma-ray if:

- there are no hit in the anticoincidence
- at least three subequent planes are hit in the tracker
- the information from the time-of-flight are compatible with particles coming from above

These past few weeks were dedicated to the implementation of a segmentation of the anticoincidence. The segmentation will help to discriminate between hits created by primary charged particle and hits created by backsplashed particles related to the interaction of a gamma-ray.

Plan of studies

- E. Milotti - Introduzione ai Metodi Bayesiani (16h - course attended and exam done)
- P. Schiavon - Metodi di Fit e Filtro di Kalman (10h - course attended)
- V. Bonvicini and R. Longo - Rivelatori al silicio ed elettronica di lettura (20h - course attended)
- M.Boezio and F. Longo - Fisica astroparticellare: raggi cosmici e raggi gamma (16h - course attended)
- F. Cossutti - Test sperimentali del Modello Standard (16h - course to be attended in December)
- A. Zanetti - Fisica adronica al Tevatron e a LHC (6h - course to be attended in January)

Attended School

- International School of Astroparticle Physics: Multi-Messenger Approach in High Energy Astrophysics (Paris, 2-13 July 2012)

UNIVERSITA DEGLI STUDI DI TRIESTE

SCUOLA DI DOTTORATO DI RICERCA IN FISICA

XXVII CICLO

Fellowship:"Experiments with synchrotron radiation [11]

Year-end report:

Time-Resolved and Imaging Techniques for Photoionization Studies of Atoms, Molecules and Clusters

Scientific sector Fis/03

DOCTORAL STUDENT
MICHELE DI FRAIA

SUPERVISOR, at Elettra-Sincrotrone Trieste
Dr. MARCELLO CORENO

THESIS SUPERVISOR, at University of Trieste
Prof. FULVIO PARMIGIANI

A.A. 2011/2012

Approved course of study:

Caratteristiche generali dei rivelatori {60 hours)
Fisico Atomica e molecolare {42 hours)

Courses attended:

Caratteristiche generali dei rivelatori

Present attendance:

Fisico Atomica e Molecolare

Examinations taken:

Caratteristiche generali dei rivelatori, on Sep *9,* 2012. Mark: BUONO.
(A scan of my personal Transcript of Records is attached).

Examinations remaining:

Fisica Atomica e Molecolare

Note: The course *Fisico Atomica e Molecolare* could not be attended earlier, since it is a first-semester course (started Sep 2012), whereas the doctoral school started only in January 2012. Examination will be taken in February 2013.

Attended International Schools:

School on Synchrotron and FEL Based Methods and their Multi-Disciplinary Applications {ICTP, Trieste, 19-30 March 2012). Certificate achieved and deposited at the Secretariat of the Physics Department.

International School planned for 2013:

Excellence in Detector and Instrumentation Technologies EDIT 2013 (Japan,12-22 March 2013)
Status: Approved by Prof. L. Lanceri, Prof. P. Camerini,Prof. F. Parmigiani, Dr. M. Coreno.
Awaiting selection of participants (due end of December 2012).

Attended conferences:

- *Synchrotron Radiation Instrumentation 2012* (Lyon, France, 9-13 July 2012). Presented a poster: *"X-Ray Beam Position Monitor Based on a Single Crystal Diamond Performing Bunch by Bunch Detection" .*

Year-end report 2012

The research project aims at studying the electronic structure of isolated species in the gas phase by means of photoionization spectroscopy. In particular the project is based on imaging and electron-ion coincidence techniques to investigate energetics and angular distributions of electrons and ions emitted upon VUV irradiation of atomic, molecular, and cluster targets. Photo-electrons are particular sensitive to the electronic structure of the outer orbitals responsible for chemical bonds; their Images are taken by 2D-detectors coupled to a Velocity Map Imaging (VMI) focusing system. Simultaneously time-of-flight (TOF) mass spectra of photo-ions can also be acquired. And by employing the PEPICo (PhotoEiectron-Photolon-Coincidence) technique it is also possible to correlate kinetic energies of photoemitted electrons with the mass distribution of photo-ions, i.e. to a specific ionic state produced by primary irradiation of the target.

In the course of the PhD study, target of increasing complexity will be investigated: atomic, molecular and clusters samples with different light sources.

A thorough characterization of the experimental set-up (detectors; supersonic beams; light from synchrotron, Free Electron Laser (FEL), and laboratory sources) requires comparison with reference literature data. For this purpose, the study of simple atomic samples is fundamental. Additionally, when dealing with a novel and innovative light source such as the FEL FERMI@Etettra, studies of simpler systems such as rare gases and small molecules are prerequisite toward a proper description of radiation-matter interaction, especially of multiphoton dynamics of more complex targets.

Complementary studies, and the improvement of photon detector systems are also required in order to fully characterize the impinging radiation in terms of intensity, spot size, time structure, and spatial position.

In greater detail, during this first year of work, the PhD student:

i) Learned about assembling and installing two different 2D detector systems: one based on an imaging plate coupled to a CCD, the other on a crossed 2D delay-line detector. Several preliminary tests in the laboratory have been performed on both detectors before using them in dedicated beam-time at the Elettra Synchrotron Radiation Facility and at the Low Density Matter (LDM) endstation ofthe FERMI@Elettra FEL.

ii) Took part in beam-times on various subjects: Interatomic Coulombic Decay (Gasphase Beamline-April 2012), Helium droplets photoionization (Gasphase Beamline-May 2012), Dichroism in Methylcyclopentanone (CiPo Beamline-September 2012). During those Runs the student actively participated to the assembly of the whole experimental setup: in particular he mounted the detector system, the voltage floating supply chain, and the detector readout electronics. He also supported beamline users by developing Matlab scripts for *in situ* data analysis. The student also participated actively in preliminary experimental runs on the LDM beamline at Fermi@Eiettra. During RUN 10 and RUN 11 (March/May 2012) he followed the activity on a prototype VMI; during RUN 12 and RUN 13 (July/October 2012) helped in the assembly of the final LDM endstation. At

FERMI@Eiettra, together with Dr. Oksana Plekan (LDM beamline scientist) he developed a system for the characterization of the beam at the Low Density Matter (LDM) Fermi FEL endstation (March 2012). This system consisted of a multipurpose manipulator with a pinhole, a phosphor plate, and a VAG screen coupled to a CCD camera with telescope lenses.

iii) In parallel to all the above work, the PhD student, thanks to his consolidated experience in diamond detectors, continued the study of Beam Position and Intensity Monitors (BPM). In particular he proposed to perform tests in the VUV region and obtained beamtime first at the Gasphase Beamline, afterwards at the CiPo Beamline, in collaboration with the University of Firenze and with the *Detector and Instrumentation Laboratory Sincrotrone Trieste.* He independently designed and built the experimental setup, then performed several tests,demonstrating the possible use of diamond as a BPM, both in the X-ray band and in the VUV band (Results presented at *SR/2012* Lyon and *SPIE 2012* San Diego).

iv) He also participated in a new project (XBPM) in collaboration with the *Detector and Instrumentation Laboratory Sincrotrone Trieste,* the University of Firenze and the Microfluorescence Beamline. The project consists in the design and construction of the first permanent X-ray BPM system based on diamond detectors,with the goal to provide it as a standard system to all the bending-magnets beamlines. Several tests have been performed (July-October 2012) in three 4-quadrant Chemical Vapour Deposition (CVD) diamond detectors using preliminary an X-ray tube of the Multilayer Laboratory at Elettra and then at the Microfluorescence Beamline.

v) During those test a problem arose in the homogeneity response of the detector, correlated to the particular growth technique of CVD diamond samples, and related to the lateral enlargement of the crystals. In collaboration with the CNRS group of the *Universite Paris 13,* several other tests have been performed on different diamond sample grown on a different substrate (October 2012). A manuscript has been submitted to the journal *Diamond and Related Materials,* and is presently under review.

vi) For a possible use of diamond detectors as BPMs in FEL beamlines, a damage test on a diamond sample with the new High Harmonic Generation (HHG) laser of the project CITIUS has been performed under different power densities.; the results are still under analysis.

Supervisor (Dr. Marcello Coreno)

REPORT 1st year

The student Federico Dogo, enrolled in the first year of the "XXVII Ciclo di Dottorato di Ricerca ovvero al VI Ciclo della Scuola di Dottorato in Fisica dell'Università di Trieste", initially decided to continue with the studies that he had undertaken as a MSc student. However his covert and as yet unexpressed passion for biophysics and for the mysteries of the origin of life has prompted him to leave astronomy and to embrace biophysics.

This shift meant that he had to quickly catch up and to learn the basics of a field that was quite new to him. Biophysics is actually an extremely varied field, where many different physical techniques – experimental, theoretical, and computational – are applied to biological problems. My research deals with the dynamics of populations of cells, especially tumour cells that are clustered together to form interacting populations, and this kind of study requires computational and analytical techniques that are akin to those used in the theory of dynamical systems and in molecular dynamics. Thus, it was not so difficult for Federico to adapt to the new research environment, and he started at once with a study of some basic, and well studied problems, reconstructing the solutions in a famous biomathematics book using the computational environment of *Mathematica*. Initially he dealt with the dynamics of biological populations, in particular, he studied single population growth and interacting populations, paying attention to prey-predator systems; using *Mathematica* he also improved his programming skills.

Afterwards, he turned to the main topic of his doctoral thesis, the construction of a repair-misrepair model of DNA. The motivation underlying this study is the development of a model that may be suitable for inclusion in the numerical simulation program that I have been developing for several years and that already includes many of the basic features of cells. One may wonder why not use one of the existing repair-misrepair models: the reason is simply that none of the existing models describes the dynamics of repair-misrepair in a satisfactory way. The final aim of the project is the development of a master equation for the populations of DNA strands with different grades of damage. Then, from the master equation, a stochastic equation follows that can be applied to each individual helix, and therefore to each single cell in the simulation program.

In this initial part of the study, Federico has reviewed the processes and the sources capable of damaging DNA, and has reviewed the existing literature. This is a preliminary step for any modelling attempt. A tentative model was developed by me some time ago, and Federico has already started working on it.

_____

Papers

Edoardo Milotti, Vladislav Vyshemirsky, Michela Sega, Sabrina Stella, Federico Dogo, Roberto Chignola: *Computer-aided biophysical modeling* (in preparation)

_____

Courses & Schools

Since the student Federico Dogo, enrolled in the first year of the "XXVII Ciclo di Dottorato di Ricerca ovvero al VI Ciclo della Scuola di Dottorato in Fisica dell'Università di Trieste", has changed his research topic, and since for this research field there are no predefined courses, the choice of courses is still in progress.

Schools and the possible other courses shall be selected shortly – some of them from the european network of excellence DoReMi (http://www.doremi-noe.net/index.html).

At the moment the list of courses is the following:

Gamma Ray Bursts	F.Longo	06 hours	(exam scheduled in December)
Laboratorio di Astrofisica Spaziale [*]	A.Gregorio	72 hours	(underway)
Dynamical Models in Biology [**]	C.Altafini	20 hours	(underway)
Total		*98 hours*	

[*] corso mutuato dalla Laurea Magistrale in Fisica dell'Università di Trieste
[**] corso mutuato dal PhD della SISSA

University of Trieste - Department of Physics
PhD Course (XXVII Cycle)

Candidate: Mario Filiasi

Supervisor: Dr. Erik Vesselli

Co-Supervisor: Prof. Maria Peressi

Project: Mathematical and Physical Models for Financial Risk Evaluation

First Year Report

My research project is financed by the European Social Fund and by LIST SpA, within the framework of the "SHARM project" (Supporting Human Assets in Research and Mobility). The purpose of the project is to promote and enhance the relationship between the academic and working sectors through the cooperation of universities with local enterprises. In accordance with this perspective, this PhD project establishes the collaboration between the University of Trieste and LIST SpA, a company that provides products and services in the informatic sector with specific application to the financial world. LIST collaborates to the research activities and contributes to the project's funding.
The people who are directly involved in this research project, are:

University of Trieste

- Mario Filiasi (PhD candidate)
- Dr. Erik Vesselli (supervisor)
- Prof. Maria Peressi (co-supervisor)

LIST SpA

- Dr. Elia Zarinelli (company supervisor)
- Dr. Davide Davio (director of LIST-Trieste)

In addition to the mentioned people, my research work is performed in close collaboration with Prof. Matteo Marsili from ICTP (International Centre for Theoretical Physics), who is offering his recognized experience on the research topics.

Usually, the coordination of the research activities between two separate organizations, namely the university and the company, is not a simple task. In order to achieve a full collaboration between the two parts, it has been necessary to organize some common reunions where all participants to the project could debate about its current state and its future developements. During the first year of the project, the research work was performed with the full agreement of all the people involved.

In the following, I report a brief description of the most important research activities I performed during the first year of the project.

Preliminary Work

The research topics of my PhD project require some knowledge in the fields of economics and quantitative finance that do not belong to the background of a common physics graduate. For this reason, I devoted the first part of my doctoral study to the acquisition of the fundamental concepts about the financial world. The main topics I examined are:

- General features of the derivatives markets
- Type of contracts (futures, forward, options, ...)
- Type of traders (speculators, arbitrageurs, hedgers, ...)
- Interest rates and theory of pricing
- Stochastic models for price fluctuations (Black & Scholes model, Heston model, ...)
- Type of risks (equity, currency, concentration, systemic, ...)
- Risk measures (Volatility, Value at Risk, ...)

Concentration Phenomena in Large Deviations

One of the most important subjects I have examined this year concerns the field of probability theory and, more specifically, the problem of concentration phenomena in large deviations. Such phenomena characterize the rare outcomes of a set of random variables and are very general because they occur each time the analyzed variables are described by fat-tailed distributions (i.e. probability distribution functions whose tails decay slower than an exponential). A concentration occurs when the rare outcomes of the whole set of variables are realized by extremely high values of only one variable and, unexpectedly, this is the typical way in which rare events of fat-tailed distributed variables are realized.

Due to its generality, the analysis of this topic has a very wide range of applications, especially in the field of quantitative finance. Many studies proved that the stock price's returns (which are believed to be the independent random variables of the price fluctuation process) are described by fat-tailed probability distribution functions, and this means that the rare events in the price dynamics can be realized through condensation phenomena. Obviously, the financial risk of market-exposed companies is strictly linked to the rare events in the dynamics of stock prices, so the analysis of concentration in large deviations is a fundamental step for the evaluation of the financial risk.

During the first year of my PhD course, I examined the problem of concentration in different ways:

Analytical study: in spite of the generality of this topic and its possible applications, the concentration phenomena still need further analytical investigations, especially in their relation to statistical physics. With regard to this:

1. I acquired the basic concepts about the relationship between "concentration phenomena in large deviations theory" and "condensation phenomena in classical statistical mechanics";
2. I tried to extend some existing analytical results to the most general case, with the specific aim of applying such results to the financial case;
3. I tried to provide a more exhaustive description of the phenomenon through the statistical characterization of the maximum of concentrated random variables.

Numerical study: the ultimate purpose of this study is the search of concentration phenomena in the observables related to the financial world, to provide a better explanation of rare events in market dynamics. Within this perspective, the numerical analysis of real data from financial markets becomes a necessary step in this work. Concerning this topic:

1. I developed a Monte-Carlo algorithm for the extraction of condensed random variables from a generic fat-tailed distribution, with the aim of testing analytical results and comparing real financial data with "clean" simulated data;

2. I searched for possible discontinuities in the time series of stock prices (that are responsible of great amounts of unexpected gains/losses) which can be explained as concentration phenomena in price returns;

3. I analyzed the correlation matrix of portfolios with the aim of describing the high correlation of the "market-mode" as a concentration phenomenon.

Special attention has been given to point 2, concerning the study of time series of stock prices. Trying to analyze the possibilities of unexpected large losses in assets investments, this point has the closest connection to the concept of risk. This work is still in progress, but the latest obtained results suggest that the correlation of price returns reduces the probability of concentrations (it means that discontinuities of prices are less frequent then what they are supposed to be on the base of the uncorrelated statistical properties of price returns).

Numerical Analysis on Market Micro-Structure

During 2012, I started to deal with another fundamental sector of quantitative finance with very strong relations to complex systems in statistical mechanics, namely, the market micro-structure. The market micro-structure denotes the dynamics of stock prices on the short time scale ($t < 1$ sec) and it describes how prices react to single buy or sell orders from market traders. Such sector of quantitative finance is one of the most interesting contact points between economics and statistical mechanics. On the short time scale, information, news and traders' decisions play a small role on price fluctuations, which are mainly driven by pure statistical processes.

The observation of price fluctuations and trade executions on short times allows to extract a huge amount of data from financial markets, and this facilitates the statistical analysis of market dynamics. During the first year of my PhD course I devoted a part of my study to the acquisition of the fundamental concepts of market micro-structure and I started to analyze numerically a large set of public data taken from the Italian stock market and provided by LIST.

First of all, I examined the structure of the order book (i.e. the the virtual place where buy and sell auctions take place) and learned the fundamental features of the double-auction mechanism, such as the presence of a bid-ask spread, the typology of orders (market orders, limit orders and cancellations), and the general regulation of the auctions. I also examined the principal observables of the market, such as liquidity, price volatility, frequency and correlations of the orders, and their general behavior with respect to the real time and the trading time. At the same time, I observed and measured such quantities on numerical data at my disposal, checking the compatibility between my own observations and those described in literature.

Because of the heterogeneity and the roughness of data, the numerical analysis I performed required the application of methods and algorithms for data processing. With regard to this, I developed and tested an algorithm for the classification of trades executions in "buy" or "sell" orders through the comparison of data from different sources. Such classification is fundamental for the statistical analysis of data and the modeling of the order book dynamics.

Market Impact Evaluation

Another important topic of study about the market micro-structure consists in the analysis of the market impact. Such phenomenon denotes the changes of stock prices caused by the action of traders' orders on the market, and so it describes the effects of supply-demand imbalance on very short time scales. The market impact is a fundamental subject in financial risk management since it is involved in any action of investors upon markets (for instance, market impact is the most important component of the liquidity risk, which occurs every time an investor is forced to sell a large amount of stocks in a very short time). Although it is a basic concept in market micro-structure, market impact is a complex phenomenon and is widely studied in literature. The research work I performed about this topic consisted in:

- Examining the most important scientific papers about market-impact and correlated subject, gaining knowledge of the most relevant analytical and numerical results about this topic.
- Studying the problem of market impact measurements, testing some techniques on data at my disposal.
- Comparing the numerical results reported in literature with the numerical analysis performed on my dataset.
- Analyzing the effect of market impact on time-spread orders (meta-orders) and its connection to the general problem of the "optimal execution" (i.e. the search of market strategies with minimum execution cost).
- Examining the existing statistical models that describe the order book dynamics (such as the so-called "zero-intelligence models") with the purpose of measuring the market impact of different type of orders through numeric simulations.

Among the mentioned topics, the problem of the optimal execution of meta-orders is a very wide and interesting issue and it will be the main topic of my next research work. The study of the optimal execution requires accurate measurements of the market impact, a deep statistical analysis of the order-flow on different time scales, and the knowledge of executed market strategies (which are non-public data). For this reasons, the numerical analysis of market data is not enough to find solutions to this problem and it should be combined with different analytical techniques. Concerning this, the research activities I plan to do in the next future consist in:

1. Setting up an "agent-based model" (a model describing the behaviour of individual traders reter than stock prices) that is capable to capture the most important features of market micro-structure.
2. Finding the right parameters of the model and testing its goodness through the comparison with real market data.
3. Using the model to simulate markets and perform direct measurements of the market impact (which cannot be performed on real markets).
4. Testing different market strategies on simulated markets to find their optimal execution.

List of attended courses and schools:

Lecture courses:

- Introduction to Probability and Stochastic Processes
  M. Marsili - ISAS (International School for Advanced Studies)
  20 hours - Final examination passed on Feb 10, 2012

- Critical Phenomena
  G. Pastore - University of Trieste (Department of Physics)
  48 hours - Currently ongoing.
  End of the course: Dec 2012 (final examination expected on Gen-Feb 2013)

- Financial Risk Management
  A. R. Bacinello - University of Trieste (Department of Economics)
  45 hours - Currently ongoing.
  End of the course: Dec 2012 (final examination expected on Gen-Feb 2013)

Schools/workshops:

- School on Large Scale Problems in Machine Learning and Workshop on Common Concepts in Machine Learning and Statistical Physics
  ICTP (International Centre for Theoretical Physics) - Aug 20-31, 2012
  Organizers: M. Marsili, H. J. Kappen, M. Opper, R. Zecchina.

Conferences

- Instabilities in Financial Markets
  Scuola Normale Superiore di Pisa - Oct 18-19, 2012
  Organizers: S. Marmi, F. Lillo.

Nov 26, 2012

PhD Candidate:
Mario Filiasi

Supervisor:	Co-Supervisor:	Company Supervisor:
Erik Vesselli	Maria Peressi	Elia Zarinelli

University of Trieste – Department of Physics

Doctoral School of Physics – Cycle XXVII – First Year (2011/2012)

Student: *Emanuele Pomante (INAF grant: Observational Astronomy)*

Year-end report:

The subject of the Ph.D. Work of E. Pomante is the study of the Intergalactic Medium (IGM) with high-resolution spectroscopy of quasars.

During this first year of activity E. Pomante got acquainted with the state-of-the-art basics of the instrumentation and the techniques of data reduction and analysis: how data are acquired at telescopes, what are the procedures of the measurements, what is needed in order to obtain a complete calibration and characterization of the data, how the instrument signature can be rigorously removed from the data.

Later on he focused on the Hi-Res instrument (Vogt et al 1994, SPIE, 2198, 362), an echelle spectrograph mounted at the Nasmyth focus of the Keck telescope. Pomante started by studying the technical properties of the instrument, later he became familiar with the data formats and their reduction.
The immediate goal of his work is twofold:

- enlarge (of about a factor two) the dataset used by our group to study the IGM (i.e. adding Keck data to the ESO UVES and XSHOOTER data)
- compare different instrument properties, environments and approaches to the data reduction and analysis in order to improve what is presently done with the ESO data and derive useful lessons for present and future instrumentation.

To achieve this result the student started to work on the tool developed by HiRes team for data reduction, which consists of an ensemble of procedures written in IDL language each one performing a specific step resumed as follows:

Examine the set of data files to determine image type
Organize the observations according to setups
Process the flats and trace the orders
Process the arcs and create 2D wavelength solutions
Create a slit profile
Process the object frames (flatten, CR reject)
Identify and trace the object
Sky subtract
Extract

These procedures are contained in four different packages.
The first three are dervided from the tool developed for the Sloan Digital Sky Survey (SDSS) spectroscopic data reduction

idlutils
idlspec2d
specflat

the last one is the one developed specifically for HiRes spectroscopic data
xidl

These packages also contain a set of libraries (Goddard libraries) needed for the proper execution of the procedures.
To gain full control on the reduction process and be confident that the reduction carries out in a rigorous way the expected tasks the student had to delve deeply into the code.
The reduction procedure is applied to a sample of HiRes spectra extracted from the KOA (Keck Observatory Archive). In particular the initial work has been concentrated on the data from three night of observations of the object **J2123-0050** (quasar at redshift z) for which data are available also from the ESO UVES archives and from the SDSS. In this way J2123-0050 is going to be the "Rosetta Stone" for the construction of the QSO spectra database.
E. Pomante analysed the characteristics and performance of each step of the pipeline and, in case, appropriately modified the code according to the specific needs.
Finally the student combined the basic building blocks (IDL procedures) to construct a new fully functional, reliable and "user friendly" pipeline that can be easily used to reduce HiRes spectra as well as generic high-resolution echelle data and from now on will be available to all the group's members.

Future perspective:

For the near future the main goal is to compare data taken with different instruments and reduced with different procedures. The noise properties have to be rigorously characterized in order to produce reduced data that can be reliably ingested into the data analysis packages with a fully automated procedure allowing an efficient comparison with simulations.
It is worth mentioning that the standard approaches available on the market at the moment are known not to be optimal in this respect. The comparison of different approaches on the same data and different telescopes/instruments observing the same objects will be crucial to assess the effects of the various operations (e.g. the rebinning and rectification introducing correlations in the data affecting the noise propagation, the optimal extraction, the background estimation...) in order to have them under full control.
This work is carried out in collaboration with the people developing the Data Analysis for the ESPRESSO instrument, the *Echelle spectrograph for rocky exoplanets and stable spectroscopic observations* (Pepe, Cristiani, Rebolo Lopez, et al. 2010, SPIE, 7735, 77350F-77350F-9), under construction for the ESO VLT.

In 2013 a dataset of high-resolution spectra of unprecedented quality and quantity will be produced as a first deliverable of the Ph.D. thesis work.
In the second half of the year the properties of IGM at high redshift will be addressed, starting from basic diagnostics such as the average opacity of the IGM as a function of redshift, the Probability Distribution Function of the flux transmission and the correlation function, aiming at a global comparison of the observed properties of the IGM with the corresponding quantities extracted from simulations in various flavors.

Approved plan of courses:

1. The Formation of Galaxies (P. Monaco) 10 ore
2. Nucleosynthesis and Chemical Evolution of Galaxies (F. Matteucci) 16 ore
3. Formation of Cosmic Structures (S. Borgani) 16 ore
4. Observational Astronomy - Modulo A (S. Cristiani) 24 ore
5. Observational Astronomy - Modulo B (S. Cristiani) 20 ore

Tot. 86 hours

All the courses have been followed, but only number 1. and 2. have been completed with the corresponding exams (see the attached personal Transcript of Records). The reason is that one of the courses ended in the last days of September and one in middle July.
The student plans to take the remaining exams between December 2012 and January 2013.

List of the attended Schools:

From 11 to 15 June 2012: *International School of Astrophysics "Francesco Lucchin" and the GREAT-ITN project (Teramo – Italy)*

From 10 to 22 September 2012: *NEON Observing School 2012 (Asiago Astrophysical Observatory)*

Report of the research activity performed in 2012

Supervisor: Prof. Giuseppe Della Ricca - PhD student: Chiara La Licata

November 24, 2012

During my first year of research activity as PhD student at the University of Trieste, I have been working on different topics, within the CMS experiment. I worked on the Z+jets analysis, developed by the group CMS of Trieste, and on the monitoring and calibration of the electromagnetic calorimeter ECAL of CMS. For the Z+jets analysis I have implemented the RIVET (Robust Independent Validation of Experiment and Theory) analysis that allows the comparison between theory and the experimental results obtained after the unfolding techinque to subtract the effect of the detector. It consists of an analysis at the generator level that matches the analysis done on the real data; it contains the selection of leptons (electrons and muons) and the jets using the same cut selection of the analysis on data.

At present my principal activity is related to the monitoring and calibration of the electromagnetic calorimeter. In particular I am working for the determination of the inter-calibration constants, using the phi-symmetry method and I am also involved in the validation of all the calibration constants, using the Z decay in two electrons. ECAL has been designed to have a high resolution, but that is possible only with a precise calibration, in order to achive and maintain the designed performance. Achieving the design goal calibration precision of 0.5% is particularly important for some physical channels as the decay of the Higgs boson in the two photons. The calorimeter is composed of 75848 lead tungstate crystals that have a different response due to their intrinsic differences and for this reason the inter-calibration constants have to be evaluated. Different methods for the calibration in situ of CMS have been realized, one of these is the phi-symmetry technique. It is based on the assumption that for a large number of minimum bias

the total transverse energy has to be equal to the mean energy deposited on all the crystals of a ring at fixed pseudorapidity (η). This method is also a valid tool for the monitoring using the difference between constants in different periods. The inter-calibration constants evaluated with this and other tecniques have to be validated and for this pourpose the mass resolution of the Z decaying in e^+ and e^- is used. With a weekly frequency the performance of ECAL in reconstructing has to be evaluated comparing the peak shift and also the sigma of the Z of data and MonteCarlo.

During this year I have also covered some weeks as ECAL PFG shifter.

Plan of studies

Followed courses

- Introduzione ai metodi Bayesiani
- Rivelatori al Silicio ed elettronica di lettura
- Fisica astroparticellare: raggi cosmici e astrofisica gamma

Courses to follow:

- Test sperimentali del modello standard (December)
- Flavour e Violazione di CP (December)
- Fisica adronica al Tevatron (January)

Exams done

- Introduzione ai metodi Bayesiani

Exams to do

2s based on the assumption that for a large number of minimum bias

- Fisica astroparticellare: raggi cosmici e astrofisica gamma (January-February 2013)
- Test sperimentali del modello standard (January-February 2013)
- Flavour e Violazione di CP (January-February 2013)
- Fisica adronica al Tevatron (January-February 2013)

Attended Schools

- PSI Summerschool on Particle Physics. "Closing in on the Standard Model"

Report of the Research Activity Performed in 2012

PhD student: Andrea Schizzi - andrea.schizzi@ts.infn.it
Supervisor: Prof. Giuseppe Della Ricca

Research activity

The main activity I have carried out during the first year of my phd has involved the study of the associated production of vector bosons and hadronic jets, as a continuation of the master thesis work. The focus of this analysis is to extend the previous CMS 2010 results on this topic using the higher statistics sample of proton-proton collisions collected by the CMS experiment during 2011. The main goal of this work is to measure the Z differential cross section in channels of the associated jet multiplicity. The analysis is documented in the CMS internal notes [1, 2, 3] and is aimed towards the publication of a paper [4]. My personal contribution to this work consists in the measurement of the global event selection efficiency by means of the Tag&Probe method. This method provides a data-driven efficiency measurement and in this context I have developed a stand-alone implementation of the Tag&Probe in order to measure both the online trigger efficiencies and the offline reconstruction and selection efficiencies as a function of the most interesting physical observables. Beside this contribution, I studied the major backgrounds to this channel and an effective strategy for their removal in the Z +Jets sample. Eventually, I was involved in the evaluation of the leading systematic uncertainties related to the Z+Jets cross sections measurement.
During this year I also worked on the calibration of the electromagnetic calorimeter (ECAL) using of π and η data samples. Their decay into a couple of photons allows the invariant mass to be fully reconstructed with the electromagnetic calorimeter and thus is a fundamental candle in order to test and optimize its energy resolution. In this context I developed a study of the π and η trigger selection thresholds with the aim of optimizing the signal to noise ratio for the calibration of the ECAL endcaps. Alongside this activity, I performed a monitoring of the π and η trigger rates over a periodic schedule.

Exams

- E. Milotti, *Introduction to Bayesian Statistics* - Lessons attended, exam passed.
- M. Boezio, F. Longo, Astroparticle Physics - Lessons attended, exam planned for January.
- W. Bonvicini, R. Longo, *Semiconductor Detectors* - Lessons attended, exam planned for January
- F. Cossutti, *Experimental Tests of the Standard Model* - Lessons to be attended in December.
- L. Lanceri, *B Physics and CP Violation* - Lessons to be attended in December.
- A. Zanetti, *Hadron Physics at Tevatron and LHC* - Lessons to be attended in January.

Conferences and Schools

- Talk at the IFAE conference, April 11-13 2012, Ferrara (Italy), with the title: “Jets produced in association with W and Z bosons in CMS”. The proceedings of the talk have been submitted for publication.
- Partecipation at the PSI Summerschool on Particle Physics - “Closing in on the Standard Model”, August 19-25 2012, Lyceum Alpinum in Zuoz (Switzerland).

Bibliography

[1] V. Candelise et al. *Study of the associated production of a Z boson and jets in pp collisions at s = sqrt(7) TeV*. CMS-AN-2011-451, 2011

[2] V. Candelise et al. *Comparison of GSF and Particle Flow electron reconstruction performances*. CMS-AN-2011-474, 2011

[3] V. Candelise et al. *Characterization of the final state radiation in Z boson decay to electrons*. CMS-AN-12-204, 2012

[4] V. Candelise et al. *Exclusive jet multiplicity and differential production cross sections of Z+jets events in proton-proton collisions at 7 TeV*. CMS-SMP-12-017, 2012

2012 Year-End Report

Kelvin Titimbo Università
degli Studi di Trieste Doctoral
School of Physics XXVII Cycle

November 23, 2012

1 Research Activity Report

During 2012, the main research topics can be summarized in the following: Studies of the *quantum entanglement in identical particles, with emphasis in bosons* and *optical homodyne detection and quantum tomography in pulsed regime*

Quantum entanglement in identical particles

Nowadays, there is no doubt that the phenomenon of quantum entanglement lies at the heart of the foundation of quantum mechanics. Entanglement has been widely applied in many aspects of quantum information such as quantum teleportation, quantum cryptography, and quantum computation. Nevertheless, although the quantum entanglement is well studied in distinguishable-particle systems, entanglement in identical particles has hardly been investigated, and even a proper general definition is not given yet. It is obvious that we need a formal definition because there are certain system as Bose-Einstein condensates. Taking this into account, we have dealt with the definition for bipartite system in pure states in terms of the first quantization given by Ghirardi et al [1] where we consider the possibility of attribute a complete set of objective properties to each particle belonging to the composed system; and the second quantized approach by Benatti et al [2, 3] where the definition of separability is not related to the Hilbert space tensor product structure as the first one, but given in terms of commuting subalgebras of observables. We have been studying and comparing both approaches for bosons, and then we show the compatibility between them, noticing that the approach in terms of the subalgebra of observables gives the same information in terms of properties of each subsystems and it is easily extensible to most general states, mixed states and density matrices representation. Furthermore, the definition can be generalized into systems with more than two identical particles but keeping the idea of bipartition. The extension of the criteria for separability/entanglement to fermions involve the use of anticommutators and it is currently being studied.

Optical Homodyne Detection and Quantum Tomography

After recent experiments carried out in Elettra-Sincrotrone Trieste for balanced homodyne detection of quantum states of light working in the pulsed regime [4]. The research has been focused in the theoretical description of the system, i.e., local oscillator and signal in terms of multimode quantum states of light, which naturally appears in the mentioned regime. The main aim in this topic is describe each component in the homodyne tomography in a pulsed configuration in view of the possible applications to time-resolved spectroscopy experiments by measuring at different time the quantum state of the pulsed light after the interaction with the material [5, 6]

2 Plan of Studies

I have been attending the following courses

Professor	Title	Period	Number of Hours
Fabio Benatti	Statistical Mechanics	October 2012 - January 2013	48
Matteo Marsili	Probability Theory	October - November 2012	46
Stefano Olivares	Introduction to Quantum Optics	—	—

Currently, I have not taken any exam because I am still taking lectures. Nevertheless, the exam for Probability Theory has been scheduled for December 17th, 2012. The exam of Statistical Mechanics will be taken on February 2013. Course in Quantum optics will be held the next year due to availability of Prof. Olivares

3 Schools

Date	Venue	Organizers	Title
2 - 13 July 2012	ICTP, Trieste, Italy	ICTP	Summer School on Quantum Many-Body Physics of Ultra-Cold Atoms and Molecules
10 - 13 September 2012	Queen's University of Belfast, Belfast, Northern Ireland	Queen's University of Belfast	QuAMP Summer School

References

[1] GianCarlo Ghirardi, Luca Marinatto, and Tullio Weber. Entanglement and properties of composite quantum systems: A conceptual and mathematical analysis. *Journal of Statistical Physics*, 108:49–122, 2002. 10.1023/A:1015439502289.

[2] F. Benatti, R. Floreanini, and U. Marzolino. Bipartite entanglement in systems of identical particles: The partial transposition criterion. *Annals of Physics*, 327(5):1304 – 1319, 2012.

[3] F. Benatti, R. Floreanini, and U. Marzolino. Sub-shot-noise quantum metrology with entangled identical particles. *Annals of Physics*, 325(4):924 – 935, 2010.

[4] Martina Esposito. Design and experimental realization of a pulsed homodyne detector for optical quantum state characterization. Master's thesis, Università degli Studi di Trieste, 2012.

[5] O.V. Misochko, P. Gu, and K. Sakai. Coherent phonons in insb and their properties from femtosecond pump2̃013probe experiments. *Physica B: Condensed Matter*, 293(12̃0132):33 – 37, 2000.

[6] O.V Misochko. Implication of phase-dependent noise of coherent phonons in yba2cu3o7 2̃212 0̃3b4. *Physics Letters A*, 269(22̃0133):97 – 102, 2000.

14. Sistema di Valutazione della scuola.

Svariati momenti di verifica si sono succeduti nel corso del 2012 per valutare l'attivita' di ricerca dei dottorandi e piu' in generale quella della scuola:

-Valutazione da parte del Collegio docenti e del Consiglio Scientifico dell'attivita' di ricerca e di formazione dei dottorandi di tutti i cicli mediante analisi delle relazioni e seminari degli studenti sull'attivita' svolta durante l'anno.

Il giudizio tanto del Collegio docenti quanto del Consiglio scientifico si posiziona mediamente tra il buono e l'ottimo.

-Valutazione da parte di referee esterni del lavoro di tesi di dottorato degli studenti dell'ultimo ciclo. Tutti i referaggi sono ampiamente positivi con dei picchi di eccellenza

- Valutazione da parte del Consiglio Scientifico dell'attivita' dei dottorandi, del livello scientifico del Collegio docente e dei supervisori, basata su una disamina di documenti forniti dal direttore e sulla partecipazione del Consiglio ai seminari di fine anno. Su tutti i punti menzionati il giudizio e' risultato ampiamente positivo.

- Valutazione interna da parte del Nucleo di Valutazione dell'attivita' della Scuola

Il giudizio e' risultato di eccellenza.

15. Risorse finanziarie

- Risorse finanziarie a disposizione per il funzionamento del dottorato (borse escluse) per il 2012: euro 224.000

16. Pubblicazioni dei dottorandi

Il monitoraggio e la valutazione della produttivita' scientifica dei dottorandi mediante pubblicazione su riviste con referee sono considerate elementi fondamentali di valutazione della qualità del lavoro di ricerca svolto . Viene pertanto chiesto a ciascun dottorando di indicare nelle relazioni di fine ciclo le pubblicazioni prodotte nel corso del lavoro di dottorato assieme alle eventuali relazioni a conferenze. L'analisi delle relazioni di fine ciclo dei dottorandi del XXV ciclo (vedi Schede Dottorandi sopra elencate) mostra una buona attivita' di pubblicazione di articoli su riviste con referee e di svariati contributi a conferenze e workshop.

Durante i 3 anni di dottorato gli studenti del XXV ciclo hanno firmato o cofirmato circa 300 pubblicazioni.

17. Composizione collegio docenti

Composizione Collegio Docenti

n.	Cognome	Nome	Ateneo/Struttura	Dipartimento	Ruolo	Settore	Provenienza	
1.	SENATORE	Gaetano	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA	
2.	ARFELLI	Fulvia	TRIESTE	Dip. FISICA	RU	FIS/07	STESSA STRUTTURA	
3.	BENATTI	Fabio	TRIESTE	Dip. FISICA	RU	FIS/02	STESSA STRUTTURA	
4.	BORGANI	Stefano	TRIESTE	Dip. FISICA	PA	FIS/05	STESSA STRUTTURA	
5.	BOSISIO	Luciano	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA	
6.	CAMERINI	Paolo	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA	
7.	CANTATORE	Giovanni	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA	
8.	DELLA RICCA	Giuseppe	TRIESTE	Dip. FISICA	RU	FIS/01	STESSA STRUTTURA	
9.	FRANCIOSI	Alfonso	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA	
10.	GIRARDI	Marisa	TRIESTE	Dip. FISICA	RU	FIS/05	STESSA STRUTTURA	Accettato
11.	GREGORIO	Anna	TRIESTE	Dip. FISICA	RU	FIS/05	STESSA STRUTTURA	
12.	LANCERI	Livio	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA	
13.	LONGO	Renata	TRIESTE	Dip. FISICA	PA	FIS/07	STESSA STRUTTURA	
14.	MARDIROSSIAN	Fabio	TRIESTE	Dip. FISICA	PO	FIS/05	STESSA STRUTTURA	
15.	MARTIN	Anna	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA	
16.	MATTEUCCI	Maria Francesca	TRIESTE	Dip. FISICA	PO	FIS/05	STESSA STRUTTURA	
17.	MILOTTI	Edoardo	TRIESTE	Dip. FISICA	PA	FIS/01	STESSA STRUTTURA	
18.	MODESTI	Silvio	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA	
19.	PARMIGIANI	Fulvio	TRIESTE	Dip. FISICA	PO	FIS/03	STESSA STRUTTURA	
20.	PERESSI	Maria	TRIESTE	Dip. FISICA	PA	FIS/03	STESSA STRUTTURA	
21.	RUI	Rinaldo	TRIESTE	Dip. FISICA	PO	FIS/01	STESSA STRUTTURA	

18. Internazionalizzazione

Lo sforzo di internazionalizzazione e' continuato nel 2012. Tuttavia, nonostante l'intenso lavoro e l'emissione di bandi dedicati, nessuno studente extracomunitario e' riuscito ad ottenere una borsa di dottorato, vuoi per non aver superato la soglia di ammissione vuoi per non aver ottemperato a tutti gli obblighi richiesti nel bando. Uno sforzo verso la semplificazione ed incentivi per gli studenti stranieri appaiono una via obbligata per una politica efficace.

ALLEGATO 2.

Produzione Scientifica Collegio docenti

1. ARFELLI Fulvia

HONNICKE M.G, RIGON L, ARFELLI F., MENK R.-H, CUSATIS C (2007). Analyzer-based X-ray phase contrast imaging with four bounce Si(444) monochromators at ELETTRA. PHYSICA STATUS SOLIDI. A, APPLICATIONS AND MATERIALS SCIENCE, vol. 204; p. 2740-2745, ISSN: 1862-6300

D. DREOSSI, A. BERGAMASCHI, B. SCHMITT, E. VALLAZZA, ARFELLI F., LONGO R., R.H. MENK, L. RIGON, T. ROKVIC, C. VENANZI, E. CASTELLI (2007). Clinical mammography at the SYRMEP beam line: Toward the digital detection system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 576(1); p. 160-163, ISSN: 0168-9002

RIGON L, ARFELLI F., MENK R.-H (2007). Generalized diffraction enhanced imaging to retrieve absorption, refraction and scattering effects. JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol. 40; p. 3077-3089, ISSN: 0022-3727

RIGON L, ARFELLI F., MENK R.-H (2007). Three-image diffraction enhanced imaging algorithm to extract absorption, refraction, and ultrasmall-angle scattering. APPLIED PHYSICS LETTERS, vol. 90; p. 114102, ISSN: 0003-6951

CASTELLI E, ARFELLI F., DREOSSI D, LONGO R.A, ROKVIC T, COVA M.A, QUAIA E, TONUTTI M, ZANCONATI, F, ABRAMI A, CHENDA V, MENK R.H, QUAI E, TROMBA G, BREGANT P, DE GUARRINI F (2007). Clinical mammography at the SYRMEP beam line. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 237-240, ISSN: 0168-9002

RIGON L, ASTOLFO A, ARFELLI F., MENK R.-H (2008). Generalized diffraction enhanced imaging: Application to tomography. EUROPEAN JOURNAL OF RADIOLOGY, vol. 68 (3 suppl.); p. 3-7, ISSN: 0720-048X

HALL C.J, SCHULTKE E, RIGON L, ATAELMANNAN K, RIGLEY S, MENK R, ARFELLI F., TROMBA G, PEARSON S, WILKINSON S, ROUND A, CRITTELL S, GRIEBEL R, JUURLINK B.H.J (2008). Synchrotron-based in vivo tracking of implanted mammalian cells. EUROPEAN JOURNAL OF RADIOLOGY, vol. 68 (3 suppl.); p. 156-159, ISSN: 0720-048X

D. DREOSSI, A. ABRAMI, ARFELLI F., P. BREGANT, K. CASARIN, V. CHENDA, M.A. COVA, LONGO R., MENK R.-H., E. QUAI, E. QUAIA, L. RIGON, T. ROKVIC, D. SANABOR, M. TONUTTI, G. TROMBA, A. VASCOTTO, F. ZANCONATI, E. CASTELLI (2008). The mammography project at the SYRMEP beamline. EUROPEAN JOURNAL OF RADIOLOGY, vol. 68(3-suppl.1); p. S58-S62, ISSN: 0720-048X, doi: 10.1016/J.EJRAD.2008.04.038

Rigon L, ARFELLI F., Bergamaschi A, Chen RC, Dreossi D, Longo R, Menk RH, Schmitt B, Vallazza E, Castelli E (2010). Evaluation of charge -sharing effects on the spatial resolution of the

PICASSO detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 617; p. 244-245, ISSN: 0168-9002

RIGON L, ARFELLI F., ASTOLFO A, BERGAMASCHI A, DREOSSI D, LONGO R, MENK R.-H, SCHMITT B, VALLAZZA E, CASTELLI E. (2009). A single-photon counting "edge-on" silicon detector for synchrotron radiation mammography. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 608; p. S62-S65, ISSN: 0168-9002

RIGON L., VALLAZZA E., ARFELLI F., LONGO R., DREOSSI D., BERGAMASCHI A., SCHMITT B., CHEN R., COVA M.A., PERABÒ R., FIORAVANTI M., MANCINI L., MENK R.H., SODINI N., TROMBA G., ZANINI F. (2010). SYNCHROTRON-RADIATION MICROTOMOGRAPHY FOR THE NON-DESTRUCTIVE STRUCTURAL EVALUATION OF BOWED STRINGED

INSTRUMENTS. E-PRESERVATION SCIENCE, vol. 7; p. 71-77, ISSN: 1854-3928

R C Chen R.C., Longo R., Rigon R., Zanconati F., De Pellegrin A., ARFELLI F., Dreossi D., Menk R-H, Vallazza E., Xiao T.Q., Castelli E. (2010). Measurement of the linear attenuation coefficients of

breast tissues by synchrotron radiation computed

tomography. PHYSICS IN MEDICINE AND BIOLOGY, vol. 55; p. 4993-5005, ISSN: 0031-9155, doi: 10.1088/0031-9155/55/17/008

CASTELLI E., TONUTTI M., ARFELLI F., LONGO R., QUAIA E., RIGON L., SANABOR D., ZANCONATI F., DREOSSI D., ABRAMI A., QUAI E., BREGANT P., CASARIN K., CHENDA V., MENK R.H., ROKVIC T., VASCOTTO A., TROMBA G., COVA M.A. (2011). Mammography with Synchrotron Radiation: First Clinical Experience with Phase-Detection Technique. RADIOLOGY, vol. 259; p. 684-694, ISSN: 0033-8419, doi: 10.1148/radiol.11100745

Lopez F.C., Rigon L., Longo R., ARFELLI F., Bergamaschi A., Chen R.C., Dreossi D., Schmitt B., Vallazza E., Castelli E. (2011). Development of a fast read-out system of a single photon counting detector for mammography with synchrotron radiation. JOURNAL OF INSTRUMENTATION, vol. 6 C12031; p. ---, ISSN: 1748-0221, doi: 10.1088/1748-0221/6/12/C12031

Menk R.H., Schültke E., Hall C., ARFELLI F., Astolfo A., Rigon L., Round A., Ataelmannan K., MacDonald S.R., Juurlink B.H.J. (2011). Gold nanoparticle labeling of cells is a sensitive method to investigate cell distribution and migration in animal models of human disease. NANOMEDICINE, vol. 7; p. 647-654, ISSN: 1549-9634, doi: 10.1016/j.nano.2011.01.010

2. BENATTI Fabio

S. ANDERLONI, BENATTI F., R. FLOREANINI (2007). Redfield reduced dynamics and entanglement. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 40; p. 1625-1632, ISSN: 1751-8113

BENATTI F., R. FLOREANINI, A. LIGUORI (2007). Extended reduction criterion and lattice states. JOURNAL OF MATHEMATICAL PHYSICS, vol. 48; p. 052103-, ISSN: 0022-2488

BENATTI F. (2007). Entropy and algorithmic complexity in quantum information theory. NATURAL COMPUTING, vol. 6; p. 133-150, ISSN: 1567-7818

ALICKI R, BENATTI F., FLOREANINI R (2008). Charge Oscillations in Superconducting Nanodevices Coupled to External Environments. PHYSICS LETTERS A, vol. 372; p. 1968-, ISSN: 0375-9601

BENATTI F., FLOREANINI R, REALPE-GOMEZ J (2008). Cooper Pair Boxes Weakly Coupled to External Environments. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 41; p. 235304-, ISSN: 1751-8113

ANDERLONI S, BENATTI F., FLOREANINI R (2008). Noise induced current in a double-well trap. OPEN SYSTEMS & INFORMATION DYNAMICS, vol. 15; p. 143-, ISSN: 1230-1612

BENATTI F., LIGUORI A.M., A. NAGY (2008). Environment induced bipartite entanglement. JOURNAL OF MATHEMATICAL PHYSICS, vol. 49(4), ISSN: 0022-2488

S. ANDERLONI, BENATTI F., R. FLOREANINI AND A. TROMBETTONI (2009). Quantum measuring processes for trapped ultracold bosonic gases. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 42; p. 035306, ISSN: 1751-8113

BENATTI F. (2009). Quantum Algorithmic Complexity and Entropy. OPEN SYSTEMS & INFORMATION DYNAMICS, vol. 16; p. 1-, ISSN: 1230-1612

BENATTI F., LIGUORI A.M, PALUZZANO G (2010). Entanglement and entropy rates in open quantum systems. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 43; p. 045304, ISSN: 1751-8113

BENATTI F., FLOREANINI R, MARZOLINO U (2009). Environment-Induced Entanglement in a Refined Weak-Coupling Limit. EUROPHYSICS LETTERS, vol. 88; p. 20011, ISSN: 0295-5075

BENATTI F., Floreanini R., Marzolino U. (2010). Sub-shot Noise Quantum Metrology with Entangled Identical Particles. ANNALS OF PHYSICS, vol. 325/2010; p. 924-"-", ISSN: 0003-4916

BENATTI F., Floreanini R., Marzolino U. (2010). Entangling Two Unequal Atoms Through a Common Bath . PHYSICAL REVIEW A, vol. 81/2010; p. 012105-"-", ISSN: 1050-2947

BENATTI F., Floreanini F., Genovese M., Olivares S. (2011). Quantum contextuality in N-boson systems. PHYSICAL REVIEW A, vol. 84; p. 034102-1-034102-4, ISSN: 1050-2947, doi: 10.1103/PhysRevA.84.034102

BENATTI F., Nagy A. (2011). Three qubits in a symmetric environment: Dissipatively generated asymptotic entanglement. ANNALS OF PHYSICS, vol. 326 (2011); p. 740-753, ISSN: 0003-4916

BENATTI F., Floreanini R., Marzolino U. (2011). Squeezing Inequalities and Entanglement for Identical Particles. JOURNAL OF PHYSICS. B, ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol. 44 (2011); p. 091001--, ISSN: 0953-4075

3. BORGANI Stefano

PRATT, G. W, BHRINGER, H, CROSTON, J. H, ARNAUD, M, BORGANI S., S, FINOGUENOV, A, TEMPLE, R. F (2007). Temperature profiles of a representative sample of nearby X-ray galaxy clusters. ASTRONOMY & ASTROPHYSICS, vol. 461; p. 71-80, ISSN: 0004-6361

BALESTRA, I, TOZZI, P, ETTORI, S, ROSATI, P, BORGANI S., S, MAINIERI, V, NORMAN, C, VIOLA, M (2007). Tracing the evolution in the iron content of the intra-cluster medium. ASTRONOMY & ASTROPHYSICS, vol. 462; p. 429-442, ISSN: 0004-6361

MURANTE, GIUSEPPE, GIOVALLI, MARTINA, GERHARD, ORTWIN, ARNABOLDI, MAGDA, BORGANI S., STEFANO, DOLAG, KLAUS (2007). The importance of mergers for the origin of intracluster stars in cosmological simulations of galaxy clusters. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 377; p. 2-16, ISSN: 0035-8711

RASIA, E, MAZZOTTA, P, BOURDIN, H, BORGANI S., S, TORNATORE, L, ETTORI, S, DOLAG, K, MOSCARDINI, L (2008). X-MAS2: Study Systematics on the ICM Metallicity Measurements. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 674; p. 728, ISSN: 0035-8711

RONCARELLI, M, MOSCARDINI, L, BORGANI S., S, DOLAG, K (2007). The Sunyaev-Zel'dovich effects from a cosmological hydrodynamical simulation: large-scale properties and correlation with the soft X-ray signal. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 378; p. 1259-1269, ISSN: 0035-8711

AMEGLIO, S, BORGANI, S, BORGANI S., E, DOLAG, K (2009). Joint deprojection of Sunyaev-Zeldovich and X-ray images of galaxy clusters. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 394; p. 479, ISSN: 0035-8711

BALDI, A, ETTORI, S, MAZZOTTA, P, TOZZI, P, BORGANI S., S (2007). A Chandra Archival Study of the Temperature and Metal Abundance Profiles in Hot Galaxy Clusters at 0.1. ASTRONOMY & ASTROPHYSICS, vol. 666; p. 835-845, ISSN: 0004-6361

VIOLA, M, MONACO, P, BORGANI S., S, MURANTE, G, TORNATORE, L (2008). How does gas cool in DM halos?. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 383; p. 777, ISSN: 0035-8711

L. TORNATORE, BORGANI S., K. DOLAG, F. MATTEUCCI (2007). Chemical enrichment of galaxy clusters from hydrodynamical simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 382; p. 1050, ISSN: 0035-8711

SARO A., DE LUCIA G, DOLAG K, BORGANI S. (2008). The effect of gas dynamics on semi-analytic modelling of cluster galaxies. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 391; p. 565-, ISSN: 0035-8711

BIGNAMINI A., TOZZI P, BORGANI S., ETTORI S, ROSATI P (2008). Intra cluster medium properties and AGN distribution in high-z RCS clusters. ASTRONOMY & ASTROPHYSICS, vol. 489; p. 967-979, ISSN: 0004-6361

FABJAN D, TORNATORE L, BORGANI S., SARO A., DOLAG K (2008). Evolution of the metal content of the intracluster medium with hydrodynamical simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 386; p. 1265-1273, ISSN: 0035-8711

BORGANI, S, FABJAN, D, TORNATORE, L, SCHINDLER, S, DOLAG, K, BORGANI S., A (2008). The Chemical Enrichment of the ICM from Hydrodynamical Simulations. SPACE SCIENCE REVIEWS, vol. 134; p. 379-, ISSN: 0038-6308

BORGANI, S, DIAFERIO, A, DOLAG, K, BORGANI S., S (2008). Thermodynamical Properties of the ICM from Hydrodynamical Simulations. SPACE SCIENCE REVIEWS, vol. 134; p. 269-, ISSN: 0038-6308

DOLAG, K, BORGANI, S, SCHINDLER, S, DIAFERIO, A, BORGANI S., A. M (2008). Simulation Techniques for Cosmological Simulations. SPACE SCIENCE REVIEWS, vol. 134; p. 229-, ISSN: 0038-6308

RASIA E, MAZZOTTA P, BOURDIN H, BORGANI S., TORNATORE L., ETTORI S, DOLAG K, MOSCARDINI L (2008). X-MAS2: Study Systematics on the ICM Metallicity Measurements. THE ASTROPHYSICAL JOURNAL, vol. 674; p. 728-, ISSN: 0004-637X

VIOLA M, MONACO P., BORGANI S., MURANTE G, TORNATORE L (2008). How does gas cool in DM halos?. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 383; p. 777-790, ISSN: 0035-8711, doi: 10.1111/j.1365-2966.2007.12598.x

SARO A., BORGANI S., TORNATORE L, DE LUCIA G, DOLAG K, MURANTE G (2009). Simulating the formation of a protocluster at z ~ 2. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 392; p. 795-, ISSN: 0035-8711

BORGANI S., S, VIEL, M (2009). The evolution of a pre-heated intergalactic medium. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, ISSN: 0035-8711

ETTORI, S, MORANDI, A, TOZZI, P, BALESTRA, I, BORGANI S., S, ROSATI, P, LOVISARI, L, TERENZIANI, F (2009). The cluster gas mass fraction as a cosmological probe: a revised study. ASTRONOMY & ASTROPHYSICS, ISSN: 0004-6361

TESCARI, E, VIEL, M, TORNATORE, L, BORGANI S., S (2009). Damped Lyman a systems in high-resolution hydrodynamical simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, ISSN: 0035-8711

DOLAG, K, BORGANI S., S, MURANTE, G, SPRINGEL, V (2009). Substructures in hydrodynamical cluster simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, ISSN: 0035-8711

DAYAL, P, FERRARA, A, SARO, A, SALVATERRA, R, BORGANI S., S, TORNATORE, L (2009). Lyman alpha emitter evolution in the reionization epoch. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, ISSN: 0035-8711

Sartoris B., BORGANI S., Fedeli C., Matarrese S., Moscardini L., Rosati P., Weller J. (2010). The potential of X-ray cluster surveys to constrain primordial non-Gaussianity. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 407; p. 2339--, ISSN: 0035-8711

Murante G., Monaco P., Giovalli M., BORGANI S., Diaferio A. (2010). A sub-resolution multiphase interstellar medium model of star formation and SNe energy feedback. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 405; p. 1491--, ISSN: 0035-8711

Dolag K., Murante G., BORGANI S. (2010). Substructures in hydrodynamical cluster simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 405; p. 1544--, ISSN: 0035-8711

BORGANI S., Kravtsov A. (2011). Cosmological simulations of galaxy clusters. ADVANCED SCIENCE LETTERS, vol. 4; p. 181-203, ISSN: 1936-6612

Saro A., De Lucia G., BORGANI S., Dolag K. (2010). Gas cooling in semi-analytic models and SPH simulations: are results consistent?. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 406; p. 729--, ISSN: 0035-8711

Böhringer H., Pratt G. W., Arnaud M., BORGANI S., Croston J. H., Ponman T. J., Ameglio S., Temple R. F., Dolag K. (2010). Substructure of the galaxy clusters in the REXCESS sample: observed statistics and comparison to numerical simulations. ASTRONOMY & ASTROPHYSICS, vol. 514; p. 32--, ISSN: 0004-6361

Tornatore L., BORGANI S., Viel, M., Springel V. (2010). The impact of feedback on the low-redshift intergalactic medium. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 402; p. 1911--, ISSN: 0035-8711

Pratt G. W., Arnaud M., Piffaretti R., Böhringer H., Ponman T. J., Croston J. H., Voit G. M., BORGANI S., Bower R. G. (2010). Gas entropy in a representative sample of nearby X-ray galaxy clusters (REXCESS): relationship to gas mass fraction. ASTRONOMY & ASTROPHYSICS, vol. 511; p. 85--, ISSN: 0004-6361

Fabjan D., BORGANI S., Tornatore L., Saro A., Murante G., Dolag K. (2010). Simulating the effect of active galactic nuclei feedback on the metal enrichment of galaxy clusters. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 401; p. 1670--, ISSN: 0035-8711

Piro L., den Herder J. W., Ohashi T., Amati L., Atteia J. L., Barthelmy S., Barbera M., Barret D., Basso S., Boer M., BORGANI S., et al. (2009). EDGE: Explorer of diffuse emission and gamma-ray burst explosions. EXPERIMENTAL ASTRONOMY; p. 67-89, ISSN: 0922-6435

Kaastra J. S., Bykov A. M., Schindler S., Bleeker J. A. M., BORGANI S., Diaferio, A., Dolag K., Durret F., Nevalainen J., Ohashi T., Paerels F. B. S., Petrosian V., Rephaeli Y., Richter P., Schaye J., Werner N. (2008). Clusters of Galaxies: Beyond the Thermal View. SPACE SCIENCE REVIEWS; p. 1-4, ISSN: 0038-6308

BORGANI S. (2008). Cosmology with Clusters of Galaxies. In: M. Plionis, O. López-Cruz and D. Hughes. A Pan-Chromatic View of Clusters of Galaxies and the Large-Scale Structure. p. 287--, Springer, ISBN/ISSN: 9781402069406

Tornatore L., BORGANI S., Dolag K., Matteucci F. (2007). Chemical enrichment of galaxy clusters from hydrodynamical simulations

. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. 1050-1072, ISSN: 0035-8711

Ameglio S., BORGANI S., Pierpaoli E., Dolag K. (2007). Joint deprojection of Sunyaev-Zeldovich and X-ray images of galaxy clusters

. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. 397-411, ISSN: 0035-8711

Böhringer H., Schuecker P., Pratt G. W., Arnaud M., Ponman T. J., Croston J. H., BORGANI S., et al. (2007). The representative XMM-Newton cluster structure survey (REXCESS) of an X-ray luminosity selected galaxy cluster sample

. ASTRONOMY & ASTROPHYSICS; p. 363-377, ISSN: 0004-6361

AGUERRI J. A. L., GIRARDI M., BOSCHIN W., BARRENA R., MENDEZ-ABREU J., SANCHEZ-JANSSEN R., BORGANI S., CASTRO-RODRIGUEZ N., CORSINI E. M., DEL BURGO C., D'ONGHIA E., IGLESIAS-PARAMO J., NAPOLITANO N., VILCHEZ J. M. (2011). Fossil groups origins. I. RX J105453.3+552102 a very massive and relaxed system at z sim 0.5. ASTRONOMY & ASTROPHYSICS, vol. 527; p. A143--, ISSN: 0004-6361

Tescari E., Viel M., D'Odorico V., Cristiani S., Calura F., BORGANI S., Tornatore L. (2011). Cosmic evolution of the CIV in high-resolution hydrodynamic simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. 826-848, ISSN: 0035-8711

Yu H., Tozzi P., BORGANI S., Rosati P., Zhu Z.-H. (2011). Measuring redshifts using X-ray spectroscopy of galaxy clusters: results from Chandra data and future prospects. ASTRONOMY & ASTROPHYSICS, vol. 529; p. ---, ISSN: 0004-6361

Murante G., BORGANI S., Brunino R., Cha S.-H. (2011). Hydrodynamic simulations with the Godunov smoothed particle hydrodynamics. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. 136-153, ISSN: 0035-8711

Serra A.L., Diaferio A., Murante G., BORGANI S. (2011). Measuring the escape velocity and mass profiles of galaxy clusters beyond their virial radius. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 412; p. 800-816, ISSN: 0035-8711

Cui W., Springel V., Yang X., De Lucia G., BORGANI S. (2011). Properties of fossil groups in cosmological simulations and galaxy formation models. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. 2997-3008, ISSN: 0035-8711

AMEGLIO, S, BORGANI S., S, PIERPAOLI, E, DOLAG, K, ETTORI, S, MORANDI, A (2009). Reconstructing mass profiles of simulated galaxy clusters by combining Sunyaev-Zeldovich and X-ray images. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, ISSN: 0035-8711

Aguerri J. A. L., Girardi M., Boschin W., Barrena R., Mendez-Abreu J., Sanchez-Janssen R., BORGANI S., Castro-Rodriguez N., Corsini E. M., del Burgo C., D'Onghia E., Iglesias-Paramo J., Napolitano N., Vilchez J. M. (2011). Fossil groups origins. I. RX J105453.3+552102 a very massive and relaxed system at z sim 0.5. ASTRONOMY & ASTROPHYSICS, vol. 527; p. A143--, ISSN: 0004-6361

Bonafede A., Dolag K., Stasyszyn F., Murante G., BORGANI S. (in stampa). A non-ideal MHD Gadget: Simulating massive galaxy clusters. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. ---, ISSN: 0035-8711

Krause, E. Pierpaoli E., Dolag K., BORGANI S. (in stampa). Merger induced scatter and bias in the cluster mass - Sunyaev-Zeldovich effect scaling relation. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. ---, ISSN: 0035-8711

Monaco P., Murante G., BORGANI S., Dolag K. (in stampa). Schmidt-Kennicutt relations in SPH simulations of disc galaxies with effective thermal feedback from supernovae. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. ---, ISSN: 0035-8711

Murante G., BORGANI S., Brunino R., Cha S-H. (in stampa). Hydrodynamic simulations with the Godunov SPH. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY; p. ---, ISSN: 0035-8711

Planck Collaboration, BORGANI S. (in stampa). Planck Early Results XXVI: Detection with Planck and confirmation by XMM-Newton of PLCK G266.6-27.3, an exceptionally X-ray luminous and massive galaxy cluster at z~1. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

TESCARI E., VIEL M., D'ODORICO V., CRISTIANI S., CALURA F., BORGANI S., TORNATORE L. (in stampa). Cosmic evolution of the CIV in high-resolution hydrodynamic simulations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 2010; p. ---, ISSN: 0035-8711

4. BOSISIO Luciano

BOSCARDIN M, BOSISIO L., BRUZZI M, DALLA BETTA G-F, PIEMONTE C, POZZA A, RONCHIN S, TOSI C, ZORZI N (2007). Characterization of 3D-stc detectors fabricated at ITC-irst. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 284-286, ISSN: 0168-9002

I. RASHEVSKAYA, O. BORYSOV, BOSISIO L., M. BREGANT, CAMERINI P, E, CATTARUZZA, G. CONTIN, A. DYATLOVICH, E. FRAGIACOMO, G. GIACOMINI, N, GRION, G.V. MARGAGLIOTTI, S. NAUMOV, S. PIANO, S. POTIN, RUI R., A. STARODUBTSEV (2007). Qualification of a large number of double-sided

silicon microstrip sensors for the ALICE inner tracking system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 122-124, ISSN: 0168-9002

RONCHIN S, BOSCARDIN M, PIEMONTE C, POZZA A, ZORZI N, DALLA BETTA G.-F, PELLEGRINI G, BOSISIO L. (2007). Fabrication of 3D detectors featuring columnar electrodes of the same doping type. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 573; p. 224-227, ISSN: 0168-9002

S. BETTARINI, A. BARDI, G. BATIGNANI, F. BOSI, G. CALDERINI, R. CENCI, M. DELLORSO, F. FORTI, P. GIANNETTI, M.A. GIORGI, A. LUSIANI, G. MARCHIORI, F. MORSANI, N. NERI, E. PAOLONI, G. RIZZO, J. WALSH, C. ANDREOLI, E. POZZATI, L. RATTI, V. SPEZIALI, M. MANGHISONI, V. RE, G. TRAVERSI, BOSISIO L., G. GIACOMINI, L. LANCERI, I. RACHEVSKAIA, L. VITALE, M. BRUSCHI, B. GIACOBBE, N. SEMPRINI, R. SPIGHI, M. VILLA, A. ZOCCOLI, D. GAMBA, G. GIRAUDO, P. MEREU, G.F. DALLA BETTA, G. SONCINI, G. FONTANA, L. PANCHERI AND G. VERZELLESI (2007). Development of Deep N-Well Monolithic Active Pixel Sensors in a 0.13 µm CMOS Technology. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 277-280, ISSN: 0168-9002

A. POZZA, M. BOSCARDIN, BOSISIO L., G.-F. DALLA BETTA, C. PIEMONTE, S. RONCHIN, N. ZORZI (2007). First electrical characterization of 3D detectors with electrodes of the same doping type. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 570; p. 317-321, ISSN: 0168-9002

G.-F. DALLA BETTA, G. BATIGNANI, M. BOSCARDIN, BOSISIO L., P. GREGORI, L. PANCHERI, C. PIEMONTE, L. RATTI, G. VERZELLESI, N. ZORZI (2007). Monolithic integration of detectors and transistors on high-resistivity silicon. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 579; p. 658-663, ISSN: 0168-9002

PIEMONTE C, BOSCARDIN M, BOSISIO L., DALLA BETTA G-F, POZZA A, RONCHIN S, ZORZI N (2007). Study of the signal formation in single-type column 3D silicon detectors. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 579; p. 633-637, ISSN: 0168-9002

ZOBOLI A, BOSCARDIN M, BOSISIO L., DALLA BETTA G-F, PIEMONTE C, POZZA A, RONCHIN S, ZORZI N (2007). Electro-optical measurements of 3D-stc detectors fabricated at ITC-irst. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 583; p. 149-152, ISSN: 0168-9002

ZOBOLI A, BOSCARDIN M, BOSISIO L., DALLA BETTA GF, PIEMONTE C, RONCHIN S (2008). Double-Sided, Double-Type-Column 3-D Detectors: Design, Fabrication, and Technology Evaluation. IEEE TRANSACTIONS ON NUCLEAR SCIENCE, vol. 55; p. 2775-2784, ISSN: 0018-9499

AAMODT, K.BZ, ABEL, N.AQ, ABEYSEKARA, U.BX, ABRAHANTES QUINTANA, A.AP, ABRAMYAN, A.DH, ADAMOVÁ, D.CH, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AN, AGOCS, A.G.R, AGUILAR SALAZAR, S.BL, AHAMMED, Z.BA, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AL, AKIMOTO, R.CV, AKINDINOV, A.BO, ALEKSANDROV, D.BQ, ALESSANDRO, B.DA, ALFARO MOLINA, R.BL, ALICI, A.M, ALMARÁZ AVIÑA, E.BL, ALME, J.H, ALT, T.AQ, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AN, ANGELOV, V.AQ, ANSON, C.AA, ANTIČ, Ić, , T.DI, ANTINORI, F.AN, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BL, APHECETCHE, L.BT, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BL, AREND, A.AJ, ARMESTO, N.CN, ARNALDI, R.DA, ARONSSON, T.BU, ARSENE, I.C.BZ, ASRYAN, A.CT, AUGUSTINUS, A.AN, AVERBECK, R.AE, AWES, T.C.BW, ÄYSTÖ, J.AW, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AL, BAGNASCO, S.DA, BAILHACHE, R.AE, BALA, R.CZ, BALDISSERI, A.CK, BALDIT, A.Z, BÁN, J.BD, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CP, BASTID, N.Z, BATHEN, B.BS, BATIGNE, G.BT, BATYUNYA, B.AH, BAUMANN, C.BS, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CU, BELLWIED, R.AG, BELMONT-MORENO, E.BL, BELOGIANNI, A.D, BENHABIB, L.BT, BEOLE, S.CZ, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AM, BETEV, L.AN, BHASIN, A.AV, BHATI, A.K.Y, BIANCHI, L.CZ, BIANCHI, N.AK, BIANCHIN, C.CA, BIELČ, ÍK, J.CC, BIELČ, ÍKOVÁ, J.CH, BILANDZIC, A.C, BIMBOT, L.BY, BIOLCATI, E.CZ, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BJ, BLAU, D.BQ, BLUME, C.AJ, BOCCIOLI, M.AN, BOCK, N.AA, BOGDANOV, A.BP, BØGGILD, H.AB, BOGOLYUBSKY, M.CE, BOHM, J.CR, BOLDIZSÁR, L.R, BOMBARA, M.BC, BOMBONATI, C.CA, BONDILA, M.AW, BOREL, H.CK, BORISOV, A.AX, BORTOLIN, C.CA, BOSE, S.AZ, BOSISIO L., L.CW, BOSSÚ, F.CZ, BOTJE, M.C, BÖTTGER, S.AQ, BOURDAUD, G.BT, BOYER, B.BY, BRAUN, M.CT, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.BZ, BREGANT, M.CW, BREITNER, T.AQ, BRUCKNER, G.AN, BRUN, R.AN, BRUNA, E.BU, BRUNO, G.E.E, BUDNIKOV, D.CP, BUESCHING, H.AJ, BUNCIC, P.AN, BUSCH, O.AR, BUTHELEZI, Z.V, CAFFARRI, D.CA, CAI, X.DG, CAINES, H.BU, CAMACHO, E.BM, CAMERINI, P.CW, CAMPBELL, M.AN, ROMAN, V.C.AN, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AN, CARENA, W.AN, CARMINATI, F.AN, CASANOVA DÍ... (2010). Charged-particle multiplicity measurement in proton-proton collisions at √s = 7 TeV with ALICE at LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (3); p. 345-354, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1350-2

AAMODT, K.A, ABEL, N.B, ABEYSEKARA, U.C, ABRAHANTES QUINTANA, A.D, ABRAMYAN, A.E, ADAMOVÁ, D.F, AGGARWAL, M.M.G, AGLIERI RINELLA, G.H, AGOCS, A.G.I, AGUILAR SALAZAR, S.J, AHAMMED, Z.K, AHMAD, A.L, AHMAD, N.L, AHN, S.U.M AK, AKIMOTO, R.N, AKINDINOV, A.O, ALEKSANDROV, D.P, ALESSANDRO, B.Q, ALFARO MOLINA, R.J, ALICI, A.R, ALMARÁZ AVIÑA, E.J, ALME, J.S, ALT, T.B AG, ALTINI, V.T, ALTINPINAR, S.U, ANDREI, C.V, ANDRONIC, A.U, ANELLI, G.H, ANGELOV, V.B AG, ANSON, C.W, ANTIČ, Ić, , T.X, ANTINORI, F.H CD, ANTINORI, S.R, ANTIPIN, K.Y, ANTOń, CZYK, D.Y, ANTONIOLI, P.Z, ANZO, A.J, APHECETCHE, L.AA, APPELSHÄUSER, H.Y, ARCELLI, S.R, ARCEO, R.J, AREND, A.Y, ARMESTO, N.AB, ARNALDI, R.Q, ARONSSON, T.AC, ARSENE, I.C.A U, ASRYAN, A.AD, AUGUSTINUS, A.H, AVERBECK, R.U, AWES, T.C.AE, ÄYSTÖ, J.AF, AZMI, M.D.L, BABLOK, S.S, BACH, M.AG, BADALÀ, A.AH, BAEK, Y.W.M AK, BAGNASCO, S.Q, BAILHACHE, R.U Y, BALA, R.AI, BALDISSERI, A.AJ, BALDIT, A.AK, BÁN, J.AL, BARBERA, R.AM, BARNAFÖLDI, G.G.I, BARNBY, L.S.AN, BARRET, V.AK, BARTKE, J.AO, BARILE, F.T, BASILE, M.R, BASMANOV, V.AP, BASTID, N.AK, BATHEN, B.AQ, BATIGNE, G.AA, BATYUNYA, B.AR, BAUMANN, C.Y AQ, BEARDEN, I.G.AS, BECKER, B.AT BO, BELIKOV, I.AU, BELLWIED, R.AV, BELMONT-MORENO, E.J, BELOGIANNI, A.AW, BENHABIB, L.AA, BEOLE, S.AI, BERCEANU, I.V, BERCUCI, A.U V, BERDERMANN, E.U, BERDNIKOV, Y.AX, BETEV, L.H, BHASIN, A.AY, BHATI, A.K.G, BIANCHI, L.AI, BIANCHI, N.AZ, BIANCHIN, C.BA, BIELČ, ÍK, J.BB, BIELČ, ÍKOVÁ, J.F, BILANDZIC, A.BC, BIMBOT, L.BD, BIOLCATI, E.AI, BLANC, A.AK, BLANCO, F.AC CM, BLANCO, F.BE, BLAU, D.P, BLUME, C.Y, BOCCIOLI, M.H, BOCK, N.W, BOGDANOV, A.BF, BØGGILD, H.AS, BOGOLYUBSKY, M.BG, BOHM, J.BH, BOLDIZSÁR, L.I, BOMBARA, M.BI, BOMBONATI, C.H BA, BONDILA, M.AF, BOREL, H.AJ, BORISOV, A.BJ, BORTOLIN, C.BA DJ, BOSE, S.BK, BOSISIO L., L.BL, BOSSÚ, F.AI, BOTJE, M.BC, BÖTTGER, S.B, BOURDAUD, G.AA, BOYER, B.BD, BRAUN, M.AD, BRAUN-MUNZINGER, P.U AG BM, BRAVINA, L.A, BREGANT, M.AF BL, BREITNER, T.B, BRUCKNER, G.H, BRUN, R.H, BRUNA, E.AC, BRUNO, G.E.T, BUDNIKOV, D.AP, BUESCHING, H.Y, BUNCIC, P.H, BUSCH, O.BN, BUTHELEZI, Z.BO, CAFFARRI, D.BA, CAI, X.BP, CAINES, H.AC, CALVO, E.BQ, CAMACHO, E.BR, CAMERINI, P.BL, CAMPBELL, M.H, CANOA ROMAN, V.H, CAPITANI, G.P.AZ, CARA ROMEO, G.Z, CARENA, F.H, CARENA, W.H, CARMINATI, F.H, ... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at √s=0.9 and 7 TeV measured by the ALICE experiment. PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

K. Aamodt, 1 N. Abel, 2 U. Abeysekara, 3 A. Abrahantes Quintana, 4 A. Abramyan, 5 D. Adamova´, 6 M. M. Aggarwal, 7

G. Aglieri Rinella, 8 A. G. Agocs, 9 S. Aguilar Salazar, 10 Z. Ahammed, 11 A. Ahmad, 12 N. Ahmad, 12 S. U. Ahn, 13, b

R. Akimoto, 14 A. Akindinov, 15 D. Aleksandrov, 16 B. Alessandro, 17 R. Alfaro Molina, 10 A. Alici, 18

E. Almara´z Avin˜a, 10 J. Alme, 19 T. Alt, 2, c V. Altini, 20 S. Altinpinar, 21 C. Andrei, 22 A. Andronic, 21 G. Anelli, 8 V. Angelov, 2, c C. Anson, 23 T. Antic¿ic´, 24 F. Antinori, 8, d S. Antinori, 18 K. Antipin, 25 D. Anton´czyk, 25 P. Antonioli, 26

A. Anzo, 10 L. Aphecetche, 27 H. Appelsha¨user, 25 S. Arcelli, 18 R. Arceo, 10 A. Arend, 25 N. Armesto, 28 R. Arnaldi, 17

T. Aronsson, 29 I. C. Arsene, 1, e A. Asryan, 30 A. Augustinus, 8 R. Averbeck, 21 T. C. Awes, 31 J. A¨ ysto¨, 32 M. D. Azmi, 12

S. Bablok, 19 M. Bach, 33 A. Badala`, 34 Y.W. Baek, 13, b S. Bagnasco, 17 R. Bailhache, 21, f R. Bala, 35 A. Baldisseri, 36

A. Baldit, 37 J. Ba´n, 38 R. Barbera, 39 G. G. Barnafo¨ldi, 9 L. S. Barnby, 40 V. Barret, 37 J. Bartke, 41 F. Barile, 20 M. Basile, 18

V. Basmanov, 42 N. Bastid, 37 B. Bathen, 43 G. Batigne, 27 B. Batyunya, 44 C. Baumann, 43, f I. G. Bearden, 45

B. Becker, 46, g I. Belikov, 47 R. Bellwied, 48 E. Belmont-Moreno, 10 A. Belogianni, 49 L. Benhabib, 27 S. Beole, 35

I. Berceanu, 22 A. Bercuci, 21, h E. Berdermann, 21 Y. Berdnikov, 50 L. Betev, 8 A. Bhasin, 51 A. K. Bhati, 7 L. Bianchi, 35

N. Bianchi, 52 C. Bianchin, 53 J. Bielc¿i´k, 54 J. Bielc¿i´kova´, 6 A. Bilandzic, 55 L. Bimbot, 56 E. Biolcati, 35 A. Blanc, 37

F. Blanco, 39, i F. Blanco, 57 D. Blau, 16 C. Blume, 25 M. Boccioli, 8 N. Bock, 23 A. Bogdanov, 58 H. Bøggild, 45

M. Bogolyubsky, 59 J. Bohm, 60 L. Boldizsa´r, 9 M. Bombara, 61 C. Bombonati, 53, j M. Bondila, 32 H. Borel, 36

A. Borisov, 62 C. Bortolin, 53, k S. Bose, BOSISIO L., 64 F. Bossu´, 35 M. Botje, 55 S. Bo¨ttger, 2 G. Bourdaud, 27 B. Boyer, 56

M. Braun, 30 P. Braun-Munzinger, 21, 65, c L. Bravin... (2010). Two-pion Bose-Einstein correlations in pp collisions at s = 900 GeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 82; p. 052001-1-052001-14, ISSN: 1550-7998, doi: 10.1103/PhysRevD.82.052001

M. Bomben, BOSISIO L., G. Giacomini, L. Lanceri, I. Rachevskaia, L. Vitale, et al. SLIM5 Collaboration (2010). The SLIM5 low mass silicon tracker demonstrator. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 623; p. 942-953, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.08.026

Bomben M, BOSISIO L., Giacomini G, Lanceri L, Rashevskaya I, Vitale L, et al SLIM5 Collaboration (2010). SLIM5 beam test results for thin striplet detector and fast readout beam telescope

. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 617; p. 601-604, ISSN: 0168-9002, doi: 10.1016/j.nima.2009.09.039

A.Zoboli, G.-F.Dalla Betta, M.Boscardin, BOSISIO L., S.Eckert, S.Kuhn, U.Parzefall, C. Piemonte, S.Ronchin, N.Zorzi (2009). Laser and beta source setup characterization of 3D-DDTC detectors fabricated at FBK-irst. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 604; p. 238-241, ISSN: 0168-9002

Gabriele Giacomini, BOSISIO L., Irina Rashevskaya, Oleksandr Starodubtsev (2010). Study of frequency-dependent strip admittance in silicon microstrip detectors. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 624; p. 344-349, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.03.160

M. Bomben, BOSISIO L., G. Della Ricca, L. Lanceri, L. Vitale, et al. BaBar Collaboration (2010). Measurement of |Vcb| and the form-Factor slope in b¯¿Dl- ¿¯l decays in events tagged by a fully reconstructed B meson. PHYSICAL REVIEW LETTERS, vol. 104; p. 011802/1-011802/7, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.104.011802

A. Zoboli, M. Boscardin, BOSISIO L., G.-F.Dalla Betta, C. Piemonte, S. Ronchin, N. Zorzi (2010). Initial results from 3D-DDTC detectors on p-type substrates. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 612; p. 521-524, ISSN: 0168-9002, doi: 10.1016/j.nima.2009.08.010

Bomben M, BOSISIO L., Giacomini G, Lanceri L, Rashevskaya I., Vitale L, et al SLIM5 Collaboration (2010). Beam-test results of 4k pixel CMOS MAPS and high resistivity striplet detectors equipped with digital sparsified readout in the Slim5 low mass silicon demonstrator

. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 617; p. 596-600, ISSN: 0168-9002, doi: http://dx.doi.org/10.1016/j.nima.2009.10.035

Aamodt, K.a, Abel, N.b, Abeysekara, U.c, Abrahantes Quintana, A.d, Abramyan, A.e, Adamová, D.f, Aggarwal, M.M.g, Aglieri Rinella, G.h, Agocs, A.G.i, Aguilar Salazar, S.j, Ahammed, Z.k, Ahmad, A.l, Ahmad, N.l, Ahn, S.U.m ak, Akimoto, R.n, Akindinov, A.o, Aleksandrov, D.p, Alessandro, B.q, Alfaro Molina, R.j, Alici, A.r, Almaráz Aviña, E.j, Alme, J.s, Alt, T.b ag, Altini, V.t, Altinpinar, S.u, Andrei, C.v, Andronic, A.u, Anelli, G.h, Angelov, V.b ag, Anson, C.w, Anticic, T.x, Antinori, F.h cd, Antinori, S.r, Antipin, K.y, Antonczyk, D.y, Antonioli, P.z, Anzo, A.j, Aphecetche, L.aa, Appelshäuser, H.y, Arcelli, S.r, Arceo, R.j, Arend, A.y, Armesto, N.ab, Arnaldi, R.q, Aronsson, T.ac, Arsene, I.C.a u, Asryan, A.ad, Augustinus, A.h, Averbeck, R.u, Awes, T.C.ae, Äystö, J.af, Azmi, M.D.l, Bablok, S.s, Bach, M.ag, Badalà, A.ah, Baek, Y.W.m ak, Bagnasco, S.q, Bailhache, R.u y, Bala, R.ai, Baldisseri, A.aj, Baldit, A.ak, Bán, J.al, Barbera, R.am, Barnaföldi, G.G.i, Barnby, L.S.an, Barret, V.ak, Bartke, J.ao, Barile, F.t, Basile, M.r, Basmanov, V.ap, Bastid, N.ak, Bathen, B.aq, Batigne, G.aa, Batyunya, B.ar, Baumann, C.y aq, Bearden, I.G.as, Becker, B.at bo, Belikov, I.au, Bellwied, R.av, Belmont-Moreno, E.j, Belogianni, A.aw, Benhabib, L.aa, Beole, S.ai, Berceanu, I.v, Bercuci, A.u v, Berdermann, E.u, Berdnikov, Y.ax, Betev, L.h, Bhasin, A.ay, Bhati, A.K.g, Bianchi, L.ai, Bianchi, N.az, Bianchin, C.ba, Bielcík, J.bb, Bielcíková, J.f, Bilandzic, A.bc, Bimbot, L.bd, Biolcati, E.ai, Blanc, A.ak, Blanco, F.ac cm, Blanco, F.be, Blau, D.p, Blume, C.y, Boccioli, M.h, Bock, N.w, Bogdanov, A.bf, Bøggild, H.as, Bogolyubsky, M.bg, Bohm, J.bh, Boldizsár, L.i, Bombara, M.bi, Bombonati, C.h ba, Bondila, M.af, Borel, H.aj, Borisov, A.bj, Bortolin, C.ba dj, Bose, S.bk, BOSISIO L., L.bl, Bossú, F.ai, Botje, M.bc, Böttger, S.b, Bourdaud, G.aa, Boyer, B.bd, Braun, M.ad, Braun-Munzinger, P.u ag bm, Bravina, L.a, Bregant, M.af bl, Breitner, T.b, Bruckner, G.h, Brun, R.h, Bruna, E.ac, Bruno, G.E.t, ... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at vs=0.9 and 7 TeV measured by the ALICE experiment . PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

Gabriele Giacomini, BOSISIO L., Irina Rashevskaya, Oleksandr Starodubtsev (2011). Noise Characterization of Double-Sided Silicon Microstrip Detectors With Punch-Through Biasing. IEEE TRANSACTIONS ON NUCLEAR SCIENCE, vol. 58/2011; p. 569-576, ISSN: 0018-9499, doi: 10.1109/TNS.2011.2107749

5. CAMERINI Paolo

M. AGNELLO, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, L. BUSSO, D. CALVO, CAMERINI P., P. CERELLO, B. DALENA, F. DE MORI, G. DERASMO, D. DI SANTO, D. ELIA, F.L, FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R. FINI, M.E. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, B. KANG, A. KRASNOPEROV, V. LUCHERINI, V. LENTI, V.MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H. SO, V. TERESCHENKO, S. TOMASSINI, R. WHEADON, A. ZENONI (2007). DAFNE MONITORED BY FINUDA. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 570; p. 205-215, ISSN: 0168-9002

M. BREGANT, O. BORYSOV, L. BOSISIO, CAMERINI P., G. CONTIN, F. FALESCHINI, E. FRAGIACOMO, N. GRION, G.V. MARGAGLIOTTI, S. PIANO, I. RACHEVSKAYA, RUI R., F. BENEDOSSO, A.P. DE HAAS, R. KLUIT, P.G. KUIJER, G.J.L. NOOREN, C.J. OSKAMP, A.N. SOKOLOV, A. VAN DEN BRINK, F. AGNESE, D. BONNET, O. CLAUSSE, M. IMHOFF, C. KUHN, F. LITTEL, J.R. LUTZ, S. PLUMERI, C. WABNITZ, V. ZETER, M. OINONEN, S. NIKKINEN, Z. RADIVOJEVIC, H. SEPPANEN, M. OSTERBERG, V. ANTONOVA, V. BORSHCHOV, S.K. KIPRICH, A. LISTRATENKO, I. TYMCHUK, G. ZINOVEV (2007). Assembly and validation of the ALICE silicon microstrip detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 570; p. 312-316, ISSN: 0168-9002

M.AGNELLO, G.BEER, L.BENUSSI, M. BERTANI, H.C.BHANG, S.BIANCO, G.BONOMI, E.BOTTA, M.BREGANT, T.BRESSANI, S. BUFALINO, L.BUSSO, D.CALVO, CAMERINI P., M.CAPONERO, P.CERELLO, B.DALENA, F.DE MORI, G.D'ERASMO, D.DI SANTO, D.ELIA, F.L.FABBRI, D.FASO, A.FELICIELLO, V.FILIPPI, V.FILIPPINI, R.A.FINI, E.M.FIORE, H.FUJIOKA, P.GIANOTTI, N.GRION, O.HARTMANN, H.B.KANG, A.KRASNOPEROV, V.LENTI, V.LUCHERINI, V.MANZARI, S.MARCELLO, T.MARUTA, N.MIRFAKHRAI, O.MORRA, T.NAGAE, A.OLIN, H.OUTA, E.PACE, M.PALLOTTA, M.PALOMBA, A.PANTALEO, A.PANZARASA, V.PATICCHIO, S.PIANO, F.POMPILI, RUI R., G.SIMONETTI, H.SO, V.TERESHCHENKO, S.TOMASSINI, A.TOYODA, R.WHEADON, A.ZENONI (2007). Experimental study of the (K+, K0) interactions on Li-7 close to threshold. PHYSICS LETTERS. SECTION B, vol. 649; p. 25-30, ISSN: 0370-2693

I. RASHEVSKAYA, O. BORYSOV, L. BOSISIO, M. BREGANT, CAMERINI P., E, CATTARUZZA, G. CONTIN, A. DYATLOVICH, E. FRAGIACOMO, G. GIACOMINI, N, GRION, G.V. MARGAGLIOTTI, S. NAUMOV, S. PIANO, S. POTIN, RUI R., A. STARODUBTSEV (2007). Qualification of a large number of double-sided

silicon microstrip sensors for the ALICE inner tracking system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 122-124, ISSN: 0168-9002

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R.A. FINI, E.M. FIORE, H. FUJIOKA, P. GIANOTTI, N, GRION, O. HARTMANN, A. KRASNOPEROV, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H.SO, V.TERESHCHENKO, S. TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). The A(K-(stop), Lambda d)A-prime reaction, a tool to observe [anti-K N N

N] clusters. THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI, vol. 33; p. 283-286, ISSN: 1434-6001, doi: 10.1140/epja/i2007-10468-4

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G, BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R.A. FINI, E.M. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, A. KRASNOPEROV, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H.SO, V.TERESHCHENKO, S.TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). Study of the proton weak decay of (Lambda)C-12(g.s.) with FINUDA. THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI, vol. 33; p. 251-254, ISSN: 1434-6001, doi: 10.1140/epja/i2007-10476-4

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, R. DONA, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, R. FINI, M.E. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, A. KRASNOPEROV, V. LUCHERINI, V. LENTI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, A. OLIN, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, F. POMPILI, RUI R., G. SIMONETTI, H. SO, V. TERESHCHENKO, S. TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). Correlated Lambda d pairs from the

K-(stop) A ---> Lambda d A-prime reaction. PHYSICS LETTERS. SECTION B, vol. 654; p. 80-86, ISSN: 0370-2693, doi: 10.1016/j.physletb.2007.08.051

CAMERINI P. (2007). The Kbar-nuclear interaction: a search for deeply bound Kbar-nuclear clusters. In: Chiral dynamics 2006. durham/chapel hill,north carolina,usa, 18-22 sep 2006, SINGAPORE: World Scientific Publishing Co., p. 436-437, ISBN/ISSN: 978-981-270-566-2

V.BONVICINI, O.BORYSOV, L.BOSISIO, M.BREGANT, CAMERINI P., E.CATARUZZA, G.CONTIN, E.FRAGIACOMO, N.GRION, G.V.MARGAGLIOTTI, S.PIANO, C.PIEMONTE, I.RACHEVSKAYA, A.RACHEVSKI, A.ROSSI, RUI R., A.VACCHI, M.VENARUZZO, G.ZAMPA, ET.AL - ALICE COLLABORATION (2008). The ALICE experiment at the CERN LHC. JOURNAL OF INSTRUMENTATION, vol. 3; p. s08002-, ISSN: 1748-0221, doi: 10.1088/1748-0221/3/08/S08002

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, B. DALENA, F. DE MORI, G. D'ERASMO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, E.M. FIORE, A. FONTANA, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, A. KRASNOPEROV, Y. LEE, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, R. RUI, M. SEKIMOTO, G. SIMONETTI, V. TERESHCHENKO, A. TOYODA, R. WHEADON, A. ZENONI (2008). Measurement of the proton spectra from Non-Mesonic Weak Decay of hyper He-5 (Lambda), hyper Li-5 (Lambda) and hyper-C-12 (Lambda). NUCLEAR PHYSICS. A, vol. 804; p. 151-161, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2008.02.003

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, B. DALENA, F. DE MORI, G. D'ERASMO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, A. KRASNOPEROV, Y. LEE, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, R. RUI, M. SEKIMOTO, G. SIMONETTI, V. TERESHCHENKO, A. TOYODA, R. WHEADON AND A. ZENONI (2008). Correlated ¿t pairs from the absorption of K- at rest in light nuclei. PHYSICS LETTERS. SECTION B, vol. 669; p. 229-234, ISSN: 0370-2693, doi: 10.1016/j.physletb.2008.09.052

CAMERINI P. (2009). Stopped K- physics with FINUDA. In: Proceedings of the 10th international workshop on meson production,properties and interaction(Meson 2008). Krakow,Poland, 6-10 June 2008, SINGAPORE: World Scientific, vol. 24, p. 198-205, doi: 10.1142/S0217751X09043481

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., B. DALENA, F. DE MORI, G. D'ERASMO, F.L. FABBRI, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P.GENOVA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, R. RUI, A. SANCHEZ LORENTE, M. SEKIMOTO, G. SIMONETTI, A. TOYODA, R. WHEADON, A. ZENONI, A.GAL (2009). New results on Mesonic Weak Decay of p-shell Lambda-Hypernuclei. PHYSICS LETTERS. SECTION B, vol. 681; p. 139-146, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.09.061

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., B. DALENA, F. DE MORI, G. D'ERASMO, F.L. FABBRI, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P.GENOVA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, R. RUI, A. SANCHEZ LORENTE, M. SEKIMOTO, G. SIMONETTI, A. TOYODA, R. WHEADON, A. ZENONI, A.GAL (2009). Mesonic and Non-Mesonic Weak Decay of Hypernuclei with FINUDA. In: Nuclear Physics A. Eilat, Israel, 9-14 Novembre 2008, AMSTERDAM: Elsevier, vol. 827, p. 303-305, doi: 10.1016/j.nuclphysa.2009.05.061

ALICE Collaboration, CAMERINI P., G.Contin, G.Margagliotti, R.Rui, M.Venaruzzo (2010). Alignment of the ALICE Inner Tracking System with cosmic-ray tracks. JOURNAL OF INSTRUMENTATION, vol. 5; p. 1-36, ISSN: 1748-0221, doi: 10.1088/1748-0221/5/03/P03003

AAMODT, K.CA, ABEL, N.AP, ABEYSEKARA, U.BY, ABRAHANTES QUINTANA, A.AO, ABRAMYAN, A.DI, ADAMOVÁ, D.CI, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AM, AGOCS, A.G.R, AGUILAR SALAZAR, S.BM, AHAMMED, Z.BB, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AW, AKIMOTO, R.CW, AKINDINOV, A.BP, ALEKSANDROV, D.BR, ALESSANDRO, B.DB, ALFARO MOLINA, R.BM, ALICI, A.M, ALMARÁZ AVIÑA, E.BM, ALME, J.H, ALT, T.AP, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AM, ANGELOV, V.AP, ANSON, C.AA, ANTIč, Ić, , T.DJ, ANTINORI, F.AM, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BM, APHECETCHE, L.BU, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BM, AREND, A.AJ, ARMESTO, N.CO, ARNALDI, R.DB, ARONSSON, T.BV, ARSENE, I.C.CA, ASRYAN, A.CU, AUGUSTINUS, A.AM, AVERBECK, R.AE, AWES, T.C.BX, ÄYSTÖ, J.AV, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AW, BAGNASCO,

S.DB, BAILHACHE, R.AE, BALA, R.DA, BALDISSERI, A.CL, BALDIT, A.Z, BÁN, J.BE, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CQ, BASTID, N.Z, BATHEN, B.BT, BATIGNE, G.BU, BATYUNYA, B.AH, BAUMANN, C.BT, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CV, BELLWIED, R.AG, BELMONT-MORENO, E.BM, BELOGIANNI, A.D, BENHABIB, L.BU, BEOLE, S.DA, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AL, BETEV, L.AM, BHASIN, A.AU, BHATI, A.K.Y, BIANCHI, L.DA, BIANCHI, N.AK, BIANCHIN, C.CB, BIELČ, ÍK, J.CD, BIELČ, ÍKOVÁ, J.CI, BILANDZIC, A.C, BIMBOT, L.BZ, BIOLCATI, E.DA, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BK, BLAU, D.BR, BLUME, C.AJ, BOCCIOLI, M.AM, BOCK, N.AA, BOGDANOV, A.BQ, BØGGILD, H.AB, BOGOLYUBSKY, M.CF, BOHM, J.CS, BOLDIZSÁR, L.R, BOMBARA, M.BD, BOMBONATI, C.CB, BONDILA, M.AV, BOREL, H.CL, BORSHCHOV, V.AX, BORISOV, A.AY, BORTOLIN, C.CB, BOSE, S.BA, BOSISIO, L.CX, BOSSÚ, F.DA, BOTJE, M.C, BÖTTGER, S.AP, BOURDAUD, G.BU, BOYER, B.BZ, BRAUN, M.CU, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.CA, BREGANT, M.CX, BREITNER, T.AP, BRUCKNER, G.AM, BRUN, R.AM, BRUNA, E.BV, BRUNO, G.E.E, BUDNIKOV, D.CQ, BUESCHING, H.AJ, BUNCIC, P.AM, BUSCH, O.AQ, BUTHELEZI, Z.V, CAFFARRI, D.CB, CAI, X.DH, CAINES, H.BV, CAMACHO, E.BN, CAMERINI P., P.CX, CAMPBELL, M.AM, CANOA ROMAN, V.AM, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AM, CARENA, W.AM, CARMINAT... (2010). Charged-particle multiplicity measurement in proton-proton collisions at √s 0.9 and 2.36 TeV with ALICE at LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (1); p. 89-108, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1339-x

AAMODT, K.BZ, ABEL, N.AQ, ABEYSEKARA, U.BX, ABRAHANTES QUINTANA, A.AP, ABRAMYAN, A.DH, ADAMOVÁ, D.CH, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AN, AGOCS, A.G.R, AGUILAR SALAZAR, S.BL, AHAMMED, Z.BA, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AL, AKIMOTO, R.CV, AKINDINOV, A.BO, ALEKSANDROV, D.BQ, ALESSANDRO, B.DA, ALFARO MOLINA, R.BL, ALICI, A.M, ALMARÁZ AVIÑA, E.BL, ALME, J.H, ALT, T.AQ, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AN, ANGELOV, V.AQ, ANSON, C.AA, ANTIČ, Ić, , T.DI, ANTINORI, F.AN, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BL, APHECETCHE, L.BT, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BL, AREND, A.AJ, ARMESTO, N.CN, ARNALDI, R.DA, ARONSSON, T.BU, ARSENE, I.C.BZ, ASRYAN, A.CT, AUGUSTINUS, A.AN, AVERBECK, R.AE, AWES, T.C.BW, ÄYSTÖ, J.AW, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AL, BAGNASCO, S.DA, BAILHACHE, R.AE, BALA, R.CZ, BALDISSERI, A.CK, BALDIT, A.Z, BÁN, J.BD, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CP, BASTID, N.Z, BATHEN, B.BS, BATIGNE, G.BT, BATYUNYA, B.AH, BAUMANN, C.BS, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CU, BELLWIED, R.AG, BELMONT-MORENO, E.BL, BELOGIANNI, A.D, BENHABIB, L.BT, BEOLE, S.CZ, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AM, BETEV, L.AN, BHASIN, A.AV, BHATI, A.K.Y, BIANCHI, L.CZ, BIANCHI, N.AK, BIANCHIN, C.CA, BIELČ, ÍK, J.CC, BIELČ, ÍKOVÁ, J.CH, BILANDZIC, A.C, BIMBOT, L.BY, BIOLCATI, E.CZ, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BJ, BLAU, D.BQ, BLUME, C.AJ, BOCCIOLI, M.AN, BOCK, N.AA, BOGDANOV, A.BP, BØGGILD, H.AB, BOGOLYUBSKY, M.CE, BOHM, J.CR, BOLDIZSÁR, L.R, BOMBARA, M.BC, BOMBONATI, C.CA, BONDILA, M.AW, BOREL, H.CK, BORISOV, A.AX, BORTOLIN, C.CA, BOSE, S.AZ, BOSISIO, L.CW, BOSSÚ, F.CZ, BOTJE, M.C, BÖTTGER, S.AQ, BOURDAUD, G.BT, BOYER, B.BY, BRAUN, M.CT, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.BZ, BREGANT, M.CW, BREITNER, T.AQ, BRUCKNER, G.AN, BRUN, R.AN, BRUNA, E.BU, BRUNO, G.E.E, BUDNIKOV, D.CP, BUESCHING, H.AJ, BUNCIC, P.AN, BUSCH, O.AR, BUTHELEZI, Z.V, CAFFARRI, D.CA, CAI, X.DG, CAINES, H.BU, CAMACHO, E.BM, CAMERINI P., P.CW, CAMPBELL, M.AN, ROMAN, V.C.AN, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AN, CARENA, W.AN, CARMINATI, F.AN, CASANOVA DÍA... (2010). Charged-particle multiplicity measurement in proton-proton collisions at √s = 7 TeV with ALICE at LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (3); p. 345-354, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1350-2

AAMODT, K.A, ABEL, N.B, ABEYSEKARA, U.C, ABRAHANTES QUINTANA, A.D, ABRAMYAN, A.E, ADAMOVÁ, D.F, AGGARWAL, M.M.G, AGLIERI RINELLA, G.H, AGOCS, A.G.I, AGUILAR SALAZAR, S.J, AHAMMED, Z.K, AHMAD, A.L, AHMAD, N.L, AHN, S.U.M AK, AKIMOTO, R.N, AKINDINOV, A.O, ALEKSANDROV, D.P, ALESSANDRO, B.Q, ALFARO MOLINA, R.J, ALICI, A.R, ALMARÁZ AVIÑA, E.J, ALME, J.S, ALT, T.B AG, ALTINI, V.T, ALTINPINAR, S.U, ANDREI, C.V, ANDRONIC, A.U, ANELLI, G.H, ANGELOV, V.B AG, ANSON, C.W, ANTIČ, Ić, , T.X, ANTINORI, F.H CD, ANTINORI, S.R, ANTIPIN, K.Y, ANTOń, CZYK, D.Y, ANTONIOLI, P.Z, ANZO, A.J, APHECETCHE, L.AA, APPELSHÄUSER, H.Y, ARCELLI, S.R, ARCEO, R.J, AREND, A.Y, ARMESTO, N.AB, ARNALDI, R.Q, ARONSSON, T.AC, ARSENE, I.C.A U, ASRYAN, A.AD, AUGUSTINUS, A.H, AVERBECK, R.U, AWES, T.C.AE, ÄYSTÖ, J.AF, AZMI, M.D.L, BABLOK, S.S, BACH, M.AG, BADALÀ, A.AH, BAEK, Y.W.M AK, BAGNASCO, S.Q, BAILHACHE, R.U Y, BALA, R.AI, BALDISSERI, A.AJ, BALDIT, A.AK, BÁN, J.AL, BARBERA, R.AM, BARNAFÖLDI, G.G.I, BARNBY, L.S.AN, BARRET, V.AK, BARTKE, J.AO, BARILE, F.T, BASILE, M.R, BASMANOV, V.AP, BASTID, N.AK, BATHEN, B.AQ, BATIGNE, G.AA, BATYUNYA, B.AR, BAUMANN, C.Y AQ, BEARDEN, I.G.AS, BECKER, B.AT BO, BELIKOV, I.AU, BELLWIED, R.AV, BELMONT-MORENO, E.J, BELOGIANNI, A.AW, BENHABIB, L.AA, BEOLE, S.AI, BERCEANU, I.V, BERCUCI, A.U V, BERDERMANN, E.U, BERDNIKOV, Y.AX, BETEV, L.H, BHASIN, A.AY, BHATI, A.K.G, BIANCHI, L.AI, BIANCHI, N.AZ, BIANCHIN, C.BA, BIELČ, ÍK, J.BB, BIELČ, ÍKOVÁ, J.F, BILANDZIC, A.BC, BIMBOT, L.BD, BIOLCATI, E.AI, BLANC, A.AK, BLANCO, F.AC CM, BLANCO, F.BE, BLAU, D.P, BLUME, C.Y, BOCCIOLI, M.H, BOCK, N.W, BOGDANOV, A.BF, BØGGILD, H.AS, BOGOLYUBSKY, M.BG, BOHM, J.BH, BOLDIZSÁR, L.I, BOMBARA, M.BI, BOMBONATI, C.H BA, BONDILA, M.AF, BOREL, H.AJ, BORISOV, A.BJ, BORTOLIN, C.BA DJ, BOSE, S.BK, BOSISIO, L.BL, BOSSÚ, F.AI, BOTJE, M.BC, BÖTTGER, S.B, BOURDAUD, G.AA, BOYER, B.BD, BRAUN, M.AD, BRAUN-MUNZINGER, P.U AG BM, BRAVINA, L.A, BREGANT, M.AF BL, BREITNER, T.B, BRUCKNER, G.H, BRUN, R.H, BRUNA, E.AC, BRUNO, G.E.T, BUDNIKOV, D.AP, BUESCHING, H.Y, BUNCIC, P.H, BUSCH, O.BN, BUTHELEZI, Z.BO, CAFFARRI, D.BA, CAI, X.BP, CAINES, H.AC, CALVO, E.BQ, CAMACHO, E.BR, CAMERINI P., P.BL, CAMPBELL, M.H, CANOA ROMAN, V.H, CAPITANI, G.P.AZ, CARA ROMEO, G.Z, CARENA, F.H, CARENA, W.H, CARMINATI, F.H, C... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at √s=0.9 and 7 TeV measured by the ALICE experiment. PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

AAMODT, K.BY, ABEL, N.AQ, ABEYSEKARA, U.BW, ABRAHANTES QUINTANA, A.AP, ABRAMYAN, A.DH, ADAMOVÁ, D.CG, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AN, AGOCS, A.G.R, AGUILAR SALAZAR, S.BK, AHAMMED, Z.BA, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AL, AKIMOTO, R.CU, AKINDINOV, A.BN, ALEKSANDROV, D.BP, ALESSANDRO, B.CZ, ALFARO MOLINA, R.BK, ALICI, A.M, ALMARÁZ AVIÑA, E.BK, ALME, J.H, ALT, T.AQ, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AN, ANGELOV, V.AQ, ANSON, C.AA, ANTIČ, Ić, , T.DI, ANTINORI, F.AN, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BK, APHECETCHE, L.BS, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BK, AREND, A.AJ, ARMESTO, N.CM, ARNALDI, R.CZ, ARONSSON, T.BT, ARSENE, I.C.BY, ASRYAN, A.CS, AUGUSTINUS, A.AN, AVERBECK, R.AE, AWES, T.C.BV, ÄYSTÖ, J.AW, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AL, BAGNASCO, S.CZ, BAILHACHE, R.AE, BALA, R.CY, BALDISSERI, A.CJ, BALDIT, A.Z, BÁN, J.BD, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CO, BASTID, N.Z, BATHEN, B.BR, BATIGNE, G.BS, BATYUNYA, B.AH, BAUMANN, C.BR, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CT, BELLWIED, R.AG, BELMONT-MORENO, E.BK, BELOGIANNI, A.D, BENHABIB, L.BS, BEOLE, S.CY, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AM, BETEV, L.AN, BHASIN, A.AV, BHATI, A.K.Y, BIANCHI, L.CY, BIANCHI, N.AK, BIANCHIN, C.BZ, BIELČ, ÍK, J.CB, BIELČ, ÍKOVÁ, J.CG, BILANDZIC, A.C, BIMBOT, L.BX, BIOLCATI, E.CY, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BI, BLAU, D.BP, BLUME, C.AJ, BOCCIOLI, M.AN, BOCK, N.AA, BOGDANOV, A.BO, BØGGILD, H.AB, BOGOLYUBSKY, M.CD, BOHM, J.CQ, BOLDIZSÁR, L.R, BOMBARA, M.BC, BOMBONATI, C.BZ, BONDILA, M.AW, BOREL, H.CJ, BORISOV, A.AX, BORTOLIN, C.BZ, BOSE, S.AZ, BOSISIO, L.CV, BOSSÚ, F.CY, BOTJE, M.C, BÖTTGER, S.AQ, BOURDAUD, G.BS, BOYER, B.BX, BRAUN, M.CS, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.BY, BREGANT, M.CV, BREITNER, T.AQ, BRUCKNER, G.AN, BRUN, R.AN, BRUNA, E.BT, BRUNO, G.E.E, BUDNIKOV, D.CO, BUESCHING, H.AJ, BUNCIC, P.AN, BUSCH, O.AR, BUTHELEZI, Z.V, CAFFARRI, D.BZ, CAI, X.DG, CAINES, H.BT, CALVO, E.BF, CAMACHO, E.BL, CAMERINI P., P.CV, CAMPBELL, M.AN, CANOA ROMAN, V.AN, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AN, CARENA, W.AN, CARMINATI, F.... (2010). Transverse momentum spectra of charged particles in proton-proton collisions at √s=900 GeV with ALICE at the LHC. PHYSICS LETTERS. SECTION B, vol. 693 (2); p. 53-68, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.026

K. Aamodt, 1 N. Abel, 2 U. Abeysekara, 3 A. Abrahantes Quintana, 4 A. Abramyan, 5 D. Adamova´, 6 M. M. Aggarwal, 7

G. Aglieri Rinella, 8 A. G. Agocs, 9 S. Aguilar Salazar, 10 Z. Ahammed, 11 A. Ahmad, 12 N. Ahmad, 12 S. U. Ahn, 13, b

R. Akimoto, 14 A. Akindinov, 15 D. Aleksandrov, 16 B. Alessandro, 17 R. Alfaro Molina, 10 A. Alici, 18

E. Almara´z Avin˜a, 10 J. Alme, 19 T. Alt, 2, c V. Altini, 20 S. Altinpinar, 21 C. Andrei, 22 A. Andronic, 21 G. Anelli, 8 V. Angelov, 2, c C. Anson, 23 T. Antic¿ic´, 24 F. Antinori, 8, d S. Antinori, 18 K. Antipin, 25 D. Anton´czyk, 25 P. Antonioli, 26

A. Anzo, 10 L. Aphecetche, 27 H. Appelsha¨user, 25 S. Arcelli, 18 R. Arceo, 10 A. Arend, 25 N. Armesto, 28 R. Arnaldi, 17

T. Aronsson, 29 I. C. Arsene, 1, e A. Asryan, 30 A. Augustinus, 8 R. Averbeck, 21 T. C. Awes, 31 J. A¨ ysto¨, 32 M. D. Azmi, 12

S. Bablok, 19 M. Bach, 33 A. Badala`, 34 Y.W. Baek, 13, b S. Bagnasco, 17 R. Bailhache, 21, f R. Bala, 35 A. Baldisseri, 36

A. Baldit, 37 J. Ba´n, 38 R. Barbera, 39 G. G. Barnafo¨ldi, 9 L. S. Barnby, 40 V. Barret, 37 J. Bartke, 41 F. Barile, 20 M. Basile, 18

V. Basmanov, 42 N. Bastid, 37 B. Bathen, 43 G. Batigne, 27 B. Batyunya, 44 C. Baumann, 43, f I. G. Bearden, 45

B. Becker, 46, g I. Belikov, 47 R. Bellwied, 48 E. Belmont-Moreno, 10 A. Belogianni, 49 L. Benhabib, 27 S. Beole, 35

I. Berceanu, 22 A. Bercuci, 21, h E. Berdermann, 21 Y. Berdnikov, 50 L. Betev, 8 A. Bhasin, 51 A. K. Bhati, 7 L. Bianchi, 35

N. Bianchi, 52 C. Bianchin, 53 J. Bielc¿i´k, 54 J. Bielc¿i´kova´, 6 A. Bilandzic, 55 L. Bimbot, 56 E. Biolcati, 35 A. Blanc, 37

F. Blanco, 39, i F. Blanco, 57 D. Blau, 16 C. Blume, 25 M. Boccioli, 8 N. Bock, 23 A. Bogdanov, 58 H. Bøggild, 45

M. Bogolyubsky, 59 J. Bohm, 60 L. Boldizsa´r, 9 M. Bombara, 61 C. Bombonati, 53, j M. Bondila, 32 H. Borel, 36

A. Borisov, 62 C. Bortolin, 53, k S. Bose, 63 L. Bosisio, 64 F. Bossu´, 35 M. Botje, 55 S. Bo¨ttger, 2 G. Bourdaud, 27 B. Boyer, 56

M. Braun, 30 P. Braun-Munzinger, 21, 65, c L.... (2010). Two-pion Bose-Einstein correlations in pp collisions at s = 900 GeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 82; p. 052001-1-052001-14, ISSN: 1550-7998, doi: 10.1103/PhysRevD.82.052001

K. Aamodt, 1 B. Abelev, 2 A. Abrahantes Quintana, 3 D. Adamova´, 4 A. M. Adare, 5 M. M. Aggarwal, 6

G. Aglieri Rinella, 7 A. G. Agocs, 8 S. Aguilar Salazar, 9 Z. Ahammed, 10 A. Ahmad Masoodi, 11 N. Ahmad, 11

S. U. Ahn, 12, b A. Akindinov, 13 D. Aleksandrov, 14 B. Alessandro, 15 R. Alfaro Molina, 9 A. Alici, 16, c A. Alkin, 17

E. Almara´z Avin˜a, 9 T. Alt, 18 V. Altini, 19 S. Altinpinar, 20 I. Altsybeev, 21 C. Andrei, 22 A. Andronic, 20 V. Anguelov, 23, d

C. Anson, 24 T. Antic¿ic´, 25 F. Antinori, 26 P. Antonioli, 27 L. Aphecetche, 28 H. Appelsha¨user, 29 N. Arbor, 30 S. Arcelli, 16

A. Arend, 29 N. Armesto, 31 R. Arnaldi, 15 T. Aronsson, 5 I. C. Arsene, 20 A. Asryan, 21 A. Augustinus, 7 R. Averbeck, 20

T. C. Awes, 32 J. A¨ ysto¨, 33 M. D. Azmi, 11 M. Bach, 18 A. Badala`, 34 Y.W. Baek, 12 S. Bagnasco, 15 R. Bailhache, 29

R. Bala, 35, e R. Baldini Ferroli, 36 A. Baldisseri, 37 A. Baldit, 38 F. Baltasar Dos Santos Pedrosa, 7 J. Ba´n, 39 R. Barbera, 40

F. Barile, 19 G. G. Barnafo¨ ldi, 8 L. S. Barnby, 41 V. Barret, 38 J. Bartke, 42 M. Basile, 16 N. Bastid, 38 B. Bathen, 43

G. Batigne, 28 B. Batyunya, 44 C. Baumann, 29 I. G. Bearden, 45 H. Beck, 29 I. Belikov, 46 F. Bellini, 16 R. Bellwied, 47, f

E. Belmont-Moreno, 9 S. Beole, 35 I. Berceanu, 22 A. Bercuci, 22 E. Berdermann, 20 Y. Berdnikov, 48 C. Bergmann, 43

L. Betev, 7 A. Bhasin, 49 A. K. Bhati, 6 L. Bianchi, 35 N. Bianchi, 50 C. Bianchin, 26 J. Bielc¿i´k, 51 J. Bielc¿i´kova´, 4

A. Bilandzic, 52 E. Biolcati, 35 A. Blanc, 38 F. Blanco, 53 F. Blanco, 54 D. Blau, 14 C. Blume, 29 M. Boccioli, 7 N. Bock, 24

A. Bogdanov, 55 H. Bøggild, 45 M. Bogolyubsky, 56 L. Boldizsa´r, 8 M. Bombara, 57 C. Bombonati, 26 J. Book, 29

H. Borel, 37 A. Borissov, 47 C. Bortolin, 26, g S. Bose, 58 F. Bossu´, 35 M. Botje, 52 S. Bo¨ttger, 23 B. Boyer, 59

P. Braun-Munzinger, 20 L. Bravina, 60 M. Bregant, 61, h T. Breitner, 23 M. Broz, 62 R. Brun, 7 E. Bruna, 5 G. E. Bruno, 19

D. Budnikov, 63 H. Buesching, 29 K. Bugaiev, 17 O. Busc... (2010). Charged-particle multiplicity density at mid-rapidity

in central Pb-Pb collisions at vsNN = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 105/2010; p. 252301-1-252301-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.252301

K. Aamodt, 1 B. Abelev, 2 A. Abrahantes Quintana, 3 D. Adamova ´, 4 A.M. Adare, 5 M.M. Aggarwal, 6 G. Aglieri Rinella, 7 A.G. Agocs, 8 S. Aguilar Salazar, 9 Z. Ahammed, 10 A. Ahmad Masoodi, 11 N. Ahmad, 11 S.U. Ahn, 12, a A. Akindinov, 13 D. Aleksandrov, 14 B. Alessandro, 15 R. Alfaro Molina, 9 A. Alici, 16, b A. Alkin, 17 E. Almar ´az Avin ~a, 9 T. Alt, 18 V. Altini, 19 S. Altinpinar, 20 I. Altsybeev, 21 C. Andrei, 22 A. Andronic, 20 V. Anguelov, 23, c C. Anson, 24 T. Anti¿ci ´c, 25 F. Antinori, 26 P. Antonioli, 27 L. Aphecetche, 28 H. Appelsha ¨user, 29 N. Arbor, 30 S. Arcelli, 16 A. Arend, 29 N. Armesto, 31 R. Arnaldi, 15 T. Aronsson, 5 I.C. Arsene, 20 A. Asryan, 21 A. Augustinus, 7 R. Averbeck, 20 T.C. Awes, 32 J. A ¨yst ¨o, 33 M.D. Azmi, 11 M. Bach, 18 A. Badala`, 34 Y.W. Baek, 12 S. Bagnasco, 15 R. Bailhache, 29 R. Bala, 35, d R. Baldini Ferroli, 36 A. Baldisseri, 37 A. Baldit, 38 F. Baltasar Dos Santos Pedrosa, 7 J. B ´an, 39 R. Barbera, 40 F. Barile, 19 G.G. Barnaf ¨oldi, 8 L.S. Barnby, 41 V. Barret, 38 J. Bartke, 42 M. Basile, 16 N. Bastid, 38 B. Bathen, 43 G. Batigne, 28 B. Batyunya, 44 C. Baumann, 29 I.G. Bearden, 45 H. Beck, 29 I. Belikov, 46 F. Bellini, 16 R. Bellwied, 47, e E. Belmont-Moreno, 9 S. Beole, 35 I. Berceanu, 22 A. Bercuci, 22 E. Berdermann, 20 Y. Berdnikov, 48 C. Bergmann, 43 L. Betev, 7 A. Bhasin, 49 A.K. Bhati, 6 L. Bianchi, 35 N. Bianchi, 50 C. Bianchin, 26 J. Biel¿c ´ik, 51 J. Biel¿c ´ikova ´, 4 A. Bilandzic, 52 E. Biolcati, 35 A. Blanc, 38 F. Blanco, 53 F. Blanco, 54 D. Blau, 14 C. Blume, 29 M. Boccioli, 7 N. Bock, 24 A. Bogdanov, 55 H. Bøggild, 45 M. Bogolyubsky, 56 L. Boldizsa ´r, 8 M. Bombara, 57 C. Bombonati, 26 J. Book, 29 H. Borel, 37 A. Borissov, 47 C. Bortolin, 26, f S. Bose, 58 F. Bossu ´, 35 M. Botje, 52 S. Bo ¨ttger, 23 B. Boyer, 59 P. Braun-Munzinger, 20 L. Bravina, 60 M. Bregant, 61, g T. Breitner, 23 M. Broz, 62 R. Brun, 7 E. Bruna, 5 G.E. Bruno, 19 D. Budnikov, 63 H. Buesching, 29 K. Bugaiev, 17 O. Busch, 64 Z. Buthel... (2010). Elliptic flow of charged particles in Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 105/2010; p. 252302-1-252302-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.252302

K. Aamodt a, A. Abrahantes Quintana b, D. Adamovác, A.M. Adared, M.M. Aggarwal e, G. Aglieri Rinella f, A.G. Agocs g, S. Aguilar Salazar h, Z. Ahammed i, N. Ahmadj, A. Ahmad Masoodi j, S.U. Ahnk, 1, A. Akindinov l, D. Aleksandrovm, B. Alessandro n, R. Alfaro Molina h, A. Alici o, 2, A. Alkinp, E. Almaráz Aviña h, T. Altq, V. Altini r, S. Altinpinar s, I. Altsybeevt, C. Andrei u, A. Andronic s, V. Anguelov v, 3, 1, C. Anson w, T. Anti¿ci ´c x, F. Antinori y, P. Antonioli z, L. Aphecetcheaa, H. Appelshäuser ab, *, N. Arborac, S. Arcelli o, A. Arendab, N. Armestoad, R. Arnaldi n, T. Aronsson d, I.C. Arsene s, A. Asryant, A. Augustinus f, R. Averbecks, T.C. Awesae, J. Äystöaf, M.D. Azmi j, M. Bachq, A. Badalà ag, Y.W. Baekk, 1, S. Bagnascon, R. Bailhache ab, R. Balaah, 5, R. Baldini Ferroli ai, A. Baldisseri aj, A. Baldit ak, J. Bánal, R. Barberaam, F. Barile r, G.G. Barnaföldi g, L.S. Barnby an, V. Barretak, J. Bartkeao, M. Basile o, N. Bastidak, B. Bathenap, G. Batigne aa, B. Batyunyaaq, C. Baumannab, I.G. Bearden ar, H. Beck ab, I. Belikovas, F. Bellini o, R. Bellwied at, 6, E. Belmont-Moreno h, S. Beoleah, I. Berceanuu, A. Bercuci u, E. Berdermanns, Y. Berdnikovau, L. Betevf, A. Bhasinav, A.K. Bhati e, L. Bianchi ah, N. Bianchi aw, C. Bianchin y, J. Biel¿cík ax, J. Biel¿cíková c, A. Bilandzic ay, E. Biolcati ah, A. Blancak, F. Blanco az, F. Blancoba, D. Blaum, C. Blumeab, M. Boccioli f, N. Bockw, A. Bogdanovbb, H. Bøggild ar, M. Bogolyubsky bc, L. Boldizsárg, M. Bombarabd, C. Bombonati y, J. Book ab, H. Borel aj, C. Bortoliny, 7, S. Bose be, F. Bossú ah, M. Botjeay, S. Böttger v, B. Boyerbf, P. Braun-Munzinger s, L. Bravina bg, M. Bregant bh, 8, T. Breitner v, M. Brozbi, R. Brunf, E. Bruna d, G.E. Bruno r, D. Budnikovbj, H. Buesching ab, O. Busch bk, Z. Buthelezi bl, D. Caffarri y, X. Cai bm, H. Cainesd, E. Calvo Villar bn, CAMERINI P., V. Canoa Roman f, 9, 1, G. Cara Romeoz, F. Carenaf, W. Carenaf, F. Carminati f, A. Casanova Díaz aw, M. Caselle f, J. Castillo Castel... (2011). Suppression of charged particle production at large transverse momentum in central Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICS LETTERS. SECTION B, vol. 696/2011; p. 30-39, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.12.020

K. Aamodt a, A. Abrahantes Quintana b, D. Adamovác, A.M. Adared, M.M. Aggarwal e, G. Aglieri Rinella f, A.G. Agocs g, S. Aguilar Salazar h, Z. Ahammed i, N. Ahmadj, A. Ahmad Masoodi j, S.U. Ahnk, 1, A. Akindinov l, D. Aleksandrovm, B. Alessandro n, R. Alfaro Molina h, A. Alici o, 2, 3, A. Alkinp, E. Almaráz Aviña h, T. Altq, V. Altini r, 4, S. Altinpinar s, I. Altsybeevt, C. Andrei u, A. Andronic s, V. Anguelov v, 5, C. Anson w, T. Anti¿ci ´c x, F. Antinori y, P. Antonioli z, L. Aphecetcheaa, H. Appelshäuser ab, N. Arbor ac, S. Arcelli o, A. Arendab, N. Armestoad, R. Arnaldi n, T. Aronsson d, I.C. Arsene s, A. Asryant, A. Augustinus f, R. Averbecks, T.C. Awesae, J. Äystöaf, M.D. Azmi j, M. Bachq, A. Badalà ag, Y.W. Baekk, 1, S. Bagnasco n, R. Bailhache ab, R. Balaah, 6, R. Baldini Ferroli ai, A. Baldisseri aj, A. Balditak, J. Bánal, R. Barbera am, F. Barile r, G.G. Barnaföldi g, L.S. Barnby an, V. Barretak, J. Bartkeao, M. Basile o, N. Bastidak, B. Bathen ap, G. Batigne aa, B. Batyunyaaq, C. Baumannab, I.G. Bearden ar, H. Beckab, I. Belikovas, F. Bellini o, R. Bellwied at, 7, E. Belmont-Moreno h, S. Beoleah, I. Berceanuu, A. Bercuci u, E. Berdermanns, Y. Berdnikov au, L. Betevf, A. Bhasinav, A.K. Bhati e, L. Bianchi ah, N. Bianchi aw, C. Bianchin ax, J. Biel¿cík ay, J. Biel¿cíková c, A. Bilandzic az, E. Biolcati f, 8, A. Blancak, F. Blancoba, F. Blancobb, D. Blaum, C. Blumeab, M. Boccioli f, N. Bockw, A. Bogdanovbc, H. Bøggild ar, M. Bogolyubsky bd, L. Boldizsárg, M. Bombarabe, C. Bombonati ax, J. Book ab, H. Borel aj, C. Bortolinax, 9, S. Bose bf, F. Bossú f, 8, M. Botjeaz, S. Böttger v, B. Boyer bg, P. Braun-Munzinger s, L. Bravina bh, M. Bregantbi, 10, T. Breitner v, M. Brozbj, R. Brunf, E. Bruna d, G.E. Bruno r, D. Budnikovbk, H. Buesching ab, O. Buschbl, Z. Buthelezi bm, D. Caffarri ax, X. Cai bn, H. Cainesd, E. Calvo Villar bo, CAMERINI P., V. Canoa Romanf, 11, 12, G. Cara Romeoz, F. Carenaf, W. Carena f, F. Carminati f, A. Casanova Díaz aw, M. Caselle f, J. Cas... (2011). Two-pion Bose–Einstein correlations in central Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICS LETTERS. SECTION B, vol. 696; p. 328-337, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.12.053

K. Aamodt1, A. Abrahantes Quintana2, D. Adamov´a3, A.M. Adare4, M.M. Aggarwal5, G. Aglieri Rinella6, A.G. Agocs7, S. Aguilar Salazar8, Z. Ahammed9, N. Ahmad10, A. Ahmad Masoodi10, S.U. Ahn11, i, A. Akindinov12, D. Aleksandrov13, B. Alessandro14, R. Alfaro Molina8, A. Alici15, ii, A. Alkin16, E. Almar´az Avi˜na8, T. Alt17, V. Altini18, S. Altinpinar19, I. Altsybeev20, C. Andrei21, A. Andronic19, V. Anguelov22, iii, iv, C. Anson23, T. Anti¿ci´c24, F. Antinori25, P. Antonioli26, L. Aphecetche27, H. Appelsh¨auser28, N. Arbor29, S. Arcelli15, A. Arend28, N. Armesto30, R. Arnaldi14, T. Aronsson4, I.C. Arsene19, A. Asryan20, A. Augustinus6, R. Averbeck19, T.C. Awes31, J. A¨ ysto¨32, M.D. Azmi10, M. Bach17, A. Badal`a33, Y.W. Baek11, i, S. Bagnasco14, R. Bailhache28, R. Bala34, v, R. Baldini Ferroli35, A. Baldisseri36, A. Baldit37, J. B´an38, R. Barbera39, F. Barile18, G.G. Barnaf¨oldi7, L.S. Barnby40, V. Barret37, J. Bartke41, M. Basile15, N. Bastid37, B. Bathen42, G. Batigne27, B. Batyunya43, C. Baumann28, I.G. Bearden44, H. Beck28, I. Belikov45, F. Bellini15, R. Bellwied46, vi, E. Belmont-Moreno8, S. Beole34, I. Berceanu21, A. Bercuci21, E. Berdermann19, Y. Berdnikov47, L. Betev6, A. Bhasin48, A.K. Bhati5, L. Bianchi34, N. Bianchi49, C. Bianchin25, J. Biel¿c´ik50, J. Biel¿c´ikov´a3, A. Bilandzic51, E. Biolcati34, A. Blanc37, F. Blanco52, F. Blanco53, D. Blau13, C. Blume28, M. Boccioli6, N. Bock23, A. Bogdanov54, H. Bøggild44, M. Bogolyubsky55, L. Boldizs´ar7, M. Bombara56, C. Bombonati25, J. Book28, H. Borel36, C. Bortolin25, vii, S. Bose57, F. Boss´u34, M. Botje51, S. B¨ottger22, B. Boyer58, P. Braun-Munzinger19, L. Bravina59, M. Bregant60, viii, T. Breitner22, M. Broz61, R. Brun6, E. Bruna4, G.E. Bruno18, D. Budnikov62, H. Buesching28, O. Busch63, Z. Buthelezi64, D. Caffarri25, X. Cai65, H. Caines4, E. Calvo Villar66, CAMERINI P., V. Canoa Roman6, ix, x, G. Cara Romeo26, F. Carena6, W. Carena6, F. Carminati6, A. Casanova D´iaz49, M. Caselle6, J. Castillo Castellanos36, V... (2011). Centrality dependence of the charged-particle multiplicity density

at mid-rapidity in Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 032301-1-032301-10, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.106.032301

K. Aamodt 1, A. Abrahantes Quintana 2, D. Adamová3, A.M. Adare4, M.M. Aggarwal 5, G. Aglieri Rinella 6, A.G. Agocs 7, A. Agostinelli 8, S. Aguilar Salazar 9, Z. Ahammed 10, N. Ahmad11, A. Ahmad Masoodi 11, S.U. Ahn 12, i, A. Akindinov 13, D. Aleksandrov14, B. Alessandro 15, R. Alfaro Molina 9, A. Alici 16, A. Alkin 17, E. Almaráz Aviña 9, J. Alme18, T. Alt19, V. Altini 20, ii, I. Altsybeev21, C. Andrei 22, A. Andronic 23, V. Anguelov 19, iii, C. Anson 24, T. Anti¿ci ´c 25, F. Antinori 26, P. Antonioli 27, L. Aphecetche28, H. Appelshäuser 29, N. Arbor30, S. Arcelli 8, A. Arend29, N. Armesto31, R. Arnaldi 15, T. Aronsson 4, I.C. Arsene 23, A. Asryan21, A. Augustinus 6, R. Averbeck23, T.C. Awes32, J. Äystö33, M.D. Azmi 11, M. Bach 19, A. Badalà 34, Y.W. Baek12, i, R. Bailhache 29, R. Bala15, R. Baldini Ferroli 16, A. Baldisseri 35, A. Baldit 36, J. Bán37, R. Barbera38, F. Barile 20, G.G. Barnaföldi 7, L.S. Barnby 39, V. Barret36, J. Bartke40, M. Basile 8, N. Bastid36, B. Bathen41, G. Batigne 28, B. Batyunya42, C. Baumann29, I.G. Bearden 43, H. Beck 29, I. Belikov44, F. Bellini 8, R. Bellwied 45, E. Belmont-Moreno 9, S. Beole46, I. Berceanu22, A. Bercuci 22, E. Berdermann23, Y. Berdnikov47, C. Bergmann 41, L. Betev6, A. Bhasin48, A.K. Bhati 5, L. Bianchi 46, N. Bianchi 49, C. Bianchin 50, J. Biel¿cík 51, J. Biel¿cíková 3, A. Bilandzic 52, E. Biolcati 46, A. Blanc 36, F. Blanco53, F. Blanco45, D. Blau14, C. Blume29, N. Bock24, A. Bogdanov54, H. Bøggild 43, M. Bogolyubsky 55, L. Boldizsár7, M. Bombara56, C. Bombonati 50, J. Book 29, H. Borel 35, A. Borissov 57, C. Bortolin 50, iv, S. Bose 58, F. Bossú 6, v, M. Botje52, S. Böttger 59, B. Boyer60, P. Braun-Munzinger 23, L. Bravina 61, M. Bregant28, T. Breitner 59, M. Broz62, R. Brun6, E. Bruna 4, G.E. Bruno 20, D. Budnikov63, H. Buesching 29, S. Bufalino 46, O. Busch64, Z. Buthelezi 65, D. Caffarri 50, X. Cai 66, H. Caines4, E. Calvo Villar 67, CAMERINI P., V. Canoa Roman69, vi, G. Cara Romeo27, F. Carena6, W. Carena6, F. Car... (2011). Rapidity and transverse momentum dependence of inclusive J/¿

production in pp collisions at vs = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 2011; p. 442-455, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.09.054

Aamodt, K. Abrahantes Quintana, A. Adamova, D. Adare, A.M. Aggarwal, M.M. Rinella, G.Aglieri Agocs, A.G. Salazar, S.Aguilar Ahammed, Z. Ahmad, N. Masoodi, A.Ahmad Ahn, S.U. Akindinov, A. Aleksandrov, D. Alessandro, B. Molina, R.Alfaro Alici, A. Alkin, A. Avina, E.Almaraz Alt, T. Altini, V. Altinpinar, S. Altsybeev, I. Andrei, C. Andronic, A. Anguelov, V. Anson, C. Anticic, T. Antinori, F. Antonioli, P. Aphecetche, L. Appelshauser, H. Arbor, N. Arcelli, S. Arend, A. Armesto, N. Arnaldi, R. Aronsson, T. Arsene, I.C. Asryan, A. Augustinus, A. Averbeck, R. Awes, T.C. Aysto, J. Azmi, M.D. Bach, M. Badala, A. Baek, Y.W. Bagnasco, S. Bailhache, R. Bala, R. Ferroli, R.Baldini Baldisseri, A. Baldit, A. Ban, J. Barbera, R. Barile, F. Barnafoldi, G.G. Barnby, L.S. Barret, V. Bartke, J. Basile, M. Bastid, N. Bathen, B. Batigne, G. Batyunya, B. Baumann, C. Bearden, I.G. Beck, H. Belikov, I. Bellini, F. Bellwied, R. Beole, S. Berceanu, I. Bercuci, A. Berdermann, E. Berdnikov, Y. Betev, L. Bhasin, A. Bhati, A.K. Bianchi, L. Bianchi, N. Bianchin, C. Bielcik, J. Bielcikova, J. Bilandzic, A. Biolcati, E. Blanc, A. Blanco, F. Blanco, F. Blau, D. Blume, C. Boccioli, M. Bock, N. Bogdanov, A. Boggild, H. Bogolyubsky, M. Boldizsar, L. Bombara, M. Bombonati, C. Book, J. Borel, H. Bortolin, C. Bose, S. Bossu, F. Botje, M. Bottger, S. Boyer, B. Braun-Munzinger, P. Bravina, L. Bregant, M. Breitner, T. Broz, M. Brun, R. Bruna, E. Bruno, G.E. Budnikov, D. Buesching, H. Busch, O. Buthelezi, Z. Caffarri, D. Cai, X. Caines, H. Villar, CAMERINI P., P. Roman, V.Canoa Romeo, G.Cara Carena, F. Carena, W. Carminati, F. Casanova Diaz, A. Caselle, M. Castellanos, J.Castillo Catanescu, V. Cavicchioli, C. Cerello, P. Chang, B. Chapeland, S. Charvet, J.L. Chattopadhyay, S. Chattopadhyay, S. Cherney, M. Cheshkov, C. Cheynis, B. Chiavassa, E. Barroso, V.Chibante Chinellato, D.D. Chochula, P. Chojnacki, M. Christakoglou, P. Christensen, C.H. Christiansen, P. Chujo, T. Cicalo, C. Cifarelli, L. Cindolo, F. Cleyman... (2011). Femtoscopy of pp collisions at vs=0.9 and 7 TeV at the LHC with two-pion Bose-Einstein correlations. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84/2011; p. 112004-1-112004-22, ISSN: 1550-7998, doi: 10.1103/PhysRevD.84.112004

Aamodt, K.bz, Abel, N.aq, Abeysekara, U.ad, Abrahantes Quintana, A.ap, Acero, A.bk, Adamová, D.ch, Aggarwal, M.M.y, Aglieri Rinella, G.an, Agocs, A.G.r, Aguilar Salazar, S.bn, Ahammed, Z.bc, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.ax, Akimoto, R.cv, Akindinov, A.bp, Aleksandrov, D.br, Alessandro, B.cx, Alfaro Molina, R.bn, Alici, A.m, Almaráz Aviña, E.bn, Alme, J.h, Alt, T.aq, Altini, V.e, Altinpinar, S.af, Andrei, C.q, Andronic, A.af, Anelli, G.an, Angelov, V.aq, Anson, C.aa, Anticic, T.di, Antinori, F.an, Antinori, S.m, Antipin, K.ak, Antonczyk, D.ak, Antonioli, P.n, Anzo, A.bn, Aphecetche, L.bu, Appelshäuser, H.ak, Arcelli, S.m, Arceo, R.bn, Arend, A.ak, Armesto, N.cn, Arnaldi, R.cx, Aronsson, T.bv, Arsene, I.C.bz, Asryan, A.ct, Augustinus, A.an, Averbeck, R.af, Awes, T.C.bx, Äystö, J.aw, Azmi, M.D.b, Bablok, S.h, Bach, M.aj, Badalà, A.x, Baek, Y.W.ax, Bagnasco, S.cx, Bailhache, R.af, Bala, R.cw, Baldisseri, A.ck, Baldit, A.z, Bán, J.bf, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.cp, Bastid, N.z, Bathen, B.bt, Batigne, G.bu, Batyunya, B.ai, Baumann, C.bt, Bearden, I.G.ab, Becker, B.t, Belikov, I.cu, Bellwied, R.ah, Belmont-Moreno, E.bn, Belogianni, A.d, Benhabib, L.bu, Beole, S.cw, Berceanu, I.q, Bercuci, A.af, Berdermann, E.af, Berdnikov, Y.am, Betev, L.an, Bhasin, A.av, Bhati, A.K.y, Bianchi, L.cw, Bianchi, N.al, Bianchin, C.ca, Bielcík, J.cc, Bielcíková, J.ch, Bilandzic, A.c, Bimbot, L.by, Biolcati, E.cw, Blanc, A.z, Blanco, F.w, Blanco, F.bk, Blau, D.br, Blume, C.ak, Boccioli, M.an, Bock, N.aa, Bøgdanov, A.bq, Bøggild, H.ab, Bogolyubsky, M.ce, Bohm, J.cr, Boldizsár, L.r, Bombara, M.l, Bombonati, C.ca, Bondila, M.aw, Borel, H.ck, Borshchov, V.ay, Bortolin, C.ca, Bose, S.bb, Bosisio, L.cy, Bossú, F.cw, Botje, M.c, Böttger, S.aq, Bourdaud, G.bu, Boyer, B.by, Braun, M.ct, Braun-Munzinger, P.af ag, Bravina, L.bz, Bregant, M.cy, Breitner, T.aq, Bruckner, G.an, Brun, R.an, Bruna, E.bv, Bruno, G.E.e, Bud... (2009). First proton-proton collisions at the LHC as observed with the ALICE detector: Measurement of the charged-particle pseudorapidity density at vs = 900 GeV . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 65 (1); p. 111-125, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-009-1227-4

Aamodt, K.ca, Abel, N.ap, Abeysekara, U.by, Abrahantes Quintana, A.ao, Abramyan, A.di, Adamová, D.ci, Aggarwal, M.M.y, Aglieri Rinella, G.am, Agocs, A.G.r, Aguilar Salazar, S.bm, Ahammed, Z.bb, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.aw, Akimoto, R.cw, Akindinov, A.bp, Aleksandrov, D.br, Alessandro, B.db, Alfaro Molina, R.bm, Alici, A.m, Almaráz Aviña, E.bm, Alme, J.h, Alt, T.ap, Altini, V.e, Altinpinar, S.ae, Andrei, C.q, Andronic, A.ae, Anelli, G.am, Angelov, V.ap, Anson, C.aa, Anticic, T.dj, Antinori, F.am, Antinori, S.m, Antipin, K.aj, Antonczyk, D.aj, Antonioli, P.n, Anzo, A.bm, Aphecetche, L.bu, Appelshäuser, H.aj, Arcelli, S.m, Arceo, R.bm, Arend, A.aj, Armesto, N.co, Arnaldi, R.db, Aronsson, T.bv, Arsene, I.C.ca, Asryan, A.cu, Augustinus, A.am, Averbeck, R.ae, Awes, T.C.bx, Äystö, J.av, Azmi, M.D.b, Bablok, S.h, Bach, M.ai, Badalà, A.x, Baek, Y.W.aw, Bagnasco, S.db, Bailhache, R.ae, Bala, R.da, Baldisseri, A.cl, Baldit, A.z, Bán, J.be, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.cq, Bastid, N.z, Bathen, B.bt, Batigne, G.bu, Batyunya, B.ah, Baumann, C.bt, Bearden, I.G.ab, Becker, B.t, Belikov, I.cv, Bellwied, R.ag, Belmont-Moreno, E.bm, Belogianni, A.d, Benhabib, L.bu, Beole, S.da, Berceanu, I.q, Bercuci, A.ae, Berdermann, E.ae, Berdnikov, Y.al, Betev, L.am, Bhasin, A.au, Bhati, A.K.y, Bianchi, L.da, Bianchi, N.ak, Bianchin, C.cb, Bielcík, J.cd, Bielcíková, J.ci, Bilandzic, A.c, Bimbot, L.bz, Biolcati, E.da, Blanc, A.z, Blanco, F.w, Blanco, F.bk, Blau, D.br, Blume, C.aj, Boccioli, M.am, Bock, N.aa, Bogdanov, A.bq, Bøggild, H.ab, Bogolyubsky, M.cf, Bohm, J.cs, Boldizsár, L.r, Bombara, M.bd, Bombonati, C.cb, Bondila, M.av, Borel, H.cl, Borshchov, V.ax, Borisov, A.ay, Bortolin, C.cb, Bose, S.ba, Bosisio, L.cx, Bossú, F.da, Botje, M.c, Böttger, S.ap, Bourdaud, G.bu, Boyer, B.bz, Braun, M.cu, Braun-Munzinger, P.ae af, Bravina, L.ca, Bregant, M.cx, Breitner, T.ap, Bruckner, G.am, Brun, R.am, Bruna, E.bv... (2010). Charged-particle multiplicity measurement in proton-proton collisions at vs 0.9 and 2.36 TeV with ALICE at LHC . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (1); p. 89-108, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1339-x

Aamodt, K.bz, Abel, N.aq, Abeysekara, U.bx, Abrahantes Quintana, A.ap, Abramyan, A.dh, Adamová, D.ch, Aggarwal, M.M.y, Aglieri Rinella, G.an, Agocs, A.G.r, Aguilar Salazar, S.bl, Ahammed, Z.ba, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.al, Akimoto, R.cv, Akindinov, A.bo, Aleksandrov, D.bq, Alessandro, B.da, Alfaro Molina, R.bl, Alici, A.m, Almaráz Aviña, E.bl, Alme, J.h, Alt, T.aq, Altini, V.e, Altinpinar, S.ae, Andrei, C.q, Andronic, A.ae, Anelli, G.an, Angelov, V.aq, Anson, C.aa, Anticic, T.di, Antinori, F.an, Antinori, S.m, Antipin, K.aj, Antonczyk, D.aj, Antonioli, P.n, Anzo, A.bl, Aphecetche, L.bt, Appelshäuser, H.aj, Arcelli, S.m, Arceo, R.bl, Arend, A.aj, Armesto, N.cn, Arnaldi, R.da, Aronsson, T.bu, Arsene, I.C.bz, Asryan, A.ct, Augustinus, A.an, Averbeck, R.ae, Awes, T.C.bw, Äystö, J.aw, Azmi, M.D.b, Bablok, S.h, Bach, M.ai, Badalà, A.x, Baek, Y.W.al, Bagnasco, S.da, Bailhache, R.ae, Bala, R.cz, Baldisseri, A.ck, Baldit, A.z, Bán, J.bd, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.cp, Bastid, N.z, Bathen, B.bs, Batigne, G.bt, Batyunya, B.ah, Baumann, C.bs, Bearden, I.G.ab, Becker, B.t, Belikov, I.cu, Bellwied, R.ag, Belmont-Moreno, E.bl, Belogianni, A.d, Benhabib, L.bt, Beole, S.cz, Berceanu, I.q, Bercuci, A.ae, Berdermann, E.ae, Berdnikov, Y.am, Betev, L.an, Bhasin, A.av, Bhati, A.K.y, Bianchi, L.cz, Bianchi, N.ak, Bianchin, C.ca, Bielcík, J.cc, Bielcíková, J.ch, Bilandzic, A.c, Bimbot, L.by, Biolcati, E.cz, Blanc, A.z, Blanco, F.w, Blanco, F.bj, Blau, D.bq, Blume, C.aj, Boccioli, M.an, Bock, N.aa, Bogdanov, A.bp, Bøggild, H.ab, Bogolyubsky, M.ce, Bohm, J.cr, Boldizsár, L.r, Bombara, M.bc, Bombonati, C.ca, Bondila, M.aw, Borel, H.ck, Borisov, A.ax, Bortolin, C.ca, Bose, S.az, Bosisio, L.cw, Bossú, F.cz, Botje, M.c, Böttger, S.aq, Bourdaud, G.bt, Boyer, B.by, Braun, M.ct, Braun-Munzinger, P.ae af, Bravina, L.bz, Bregant, M.cw, Breitner, T.aq, Bruckner, G.an, Brun, R.an, Bruna, E.bu, Bruno, G.E.e, B... (2010). Charged-particle multiplicity measurement in proton-proton collisions at vs = 7 TeV with ALICE at LHC . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (3); p. 345-354, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1350-2

Aamodt, K.a, Abel, N.b, Abeysekara, U.c, Abrahantes Quintana, A.d, Abramyan, A.e, Adamová, D.f, Aggarwal, M.M.g, Aglieri Rinella, G.h, Agocs, A.G.i, Aguilar Salazar, S.j, Ahammed, Z.k, Ahmad, A.l, Ahmad, N.l, Ahn, S.U.m ak, Akimoto, R.n, Akindinov, A.o, Aleksandrov, D.p, Alessandro, B.q, Alfaro Molina, R.j, Alici, A.r, Almaráz Aviña, E.j, Alme, J.s, Alt, T.b ag, Altini, V.t, Altinpinar, S.u, Andrei, C.v, Andronic, A.u, Anelli, G.h, Angelov, V.b ag, Anson, C.w, Anticic, T.x, Antinori, F.h cd, Antinori, S.r, Antipin, K.y, Antonczyk, D.y, Antonioli, P.z, Anzo, A.j, Aphecetche, L.aa, Appelshäuser, H.y, Arcelli, S.r, Arceo, R.j, Arend, A.y, Armesto, N.ab, Arnaldi, R.q, Aronsson, T.ac, Arsene, I.C.a u, Asryan, A.ad, Augustinus, A.h, Averbeck, R.u, Awes, T.C.ae, Äystö, J.af, Azmi, M.D.l, Bablok, S.s, Bach, M.ag, Badalà, A.ah, Baek, Y.W.m ak, Bagnasco, S.q, Bailhache, R.u y, Bala, R.ai, Baldisseri, A.aj, Baldit, A.ak, Bán, J.al, Barbera, R.am, Barnaföldi, G.G.i, Barnby, L.S.an, Barret, V.ak, Bartke, J.ao, Barile, F.t, Basile, M.r, Basmanov, V.ap, Bastid, N.ak, Bathen, B.aq, Batigne, G.aa, Batyunya, B.ar, Baumann, C.y aq, Bearden, I.G.as, Becker, B.at bo, Belikov, I.au, Bellwied, R.av, Belmont-Moreno, E.j, Belogianni, A.aw, Benhabib, L.aa, Beole, S.ai, Berceanu, I.v, Bercuci, A.u v, Berdermann, E.u, Berdnikov, Y.ax, Betev, L.h, Bhasin, A.ay, Bhati, A.K.g, Bianchi, L.ai, Bianchi, N.az, Bianchin, C.ba, Bielcík, J.bb, Bielcíková, J.f, Bilandzic, A.bc, Bimbot, L.bd, Biolcati, E.ai, Blanc, A.ak, Blanco, F.ac cm, Blanco, F.be, Blau, D.p, Blume, C.y, Boccioli, M.h, Bock, N.w, Bogdanov, A.bf, Bøggild, H.as, Bogolyubsky, M.bg, Bohm, J.bh, Boldizsár, L.i, Bombara, M.bi, Bombonati, C.h ba, Bondila, M.af, Borel, H.aj, Borisov, A.bj, Bortolin, C.ba dj, Bose, S.bk, Bosisio, L.bl, Bossú, F.ai, Botje, M.bc, Böttger, S.b, Bourdaud, G.aa, Boyer, B.bd, Braun, M.ad, Braun-Munzinger, P.u ag bm, Bravina, L.a, Bregant, M.af bl, Breitner, T.b, Bruckner, G.h, Brun, R.h, Bruna, E.ac, Bruno, G.E.t, ... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at vs=0.9 and 7 TeV measured by the ALICE experiment . PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

Aamodt, K.by, Abel, N.aq, Abeysekara, U.bw, Abrahantes Quintana, A.ap, Abramyan, A.dh, Adamová, D.cg, Aggarwal, M.M.y, Aglieri Rinella, G.an, Agocs, A.G.r, Aguilar Salazar, S.bk, Ahammed, Z.ba, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.al, Akimoto, R.cu, Akindinov, A.bn, Aleksandrov, D.bp, Alessandro, B.cz, Alfaro Molina, R.bk, Alici, A.m, Almaráz Aviña, E.bk, Alme, J.h, Alt, T.aq, Altini, V.e, Altinpinar, S.ae, Andrei, C.q, Andronic, A.ae, Anelli, G.an, Angelov, V.aq, Anson, C.aa, Anticic, T.di, Antinori, F.an, Antinori, S.m, Antipin, K.aj, Antonczyk, D.aj, Antonioli, P.n, Anzo, A.bk, Aphecetche, L.bs, Appelshäuser, H.aj, Arcelli, S.m, Arceo, R.bk, Arend, A.aj, Armesto, N.cm, Arnaldi, R.cz, Aronsson, T.bt, Arsene, I.C.by, Asryan, A.cs, Augustinus, A.an, Averbeck, R.ae, Awes, T.C.bv, Äystö, J.aw, Azmi, M.D.b, Bablok, S.h, Bach, M.ai, Badalà, A.x, Baek, Y.W.al, Bagnasco, S.cz, Bailhache, R.ae, Bala, R.cy, Baldisseri, A.cj, Baldit, A.z, Bán, J.bd, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.co, Bastid, N.z, Bathen, B.br, Batigne, G.bs, Batyunya, B.ah, Baumann, C.br, Bearden, I.G.ab, Becker, B.t, Belikov, I.ct, Bellwied, R.ag, Belmont-Moreno, E.bk, Belogianni, A.d, Benhabib, L.bs, Beole, S.cy, Berceanu, I.q, Bercuci, A.ae, Berdermann, E.ae, Berdnikov, Y.am, Betev, L.an, Bhasin, A.av, Bhati, A.K.y, Bianchi, L.cy, Bianchi, N.ak, Bianchin, C.bz, Bielcík, J.cb, Bielcíková, J.cg, Bilandzic, A.c, Bimbot, L.bx, Biolcati, E.cy, Blanc, A.z, Blanco, F.w, Blanco, F.bi, Blau, D.bp, Blume, C.aj, Boccioli, M.an, Bock, N.aa, Bogdanov, A.bo, Bøggild, H.ab, Bogolyubsky, M.cd, Bohm, J.cq, Boldizsár, L.r, Bombara, M.bc, Bombonati, C.bz, Bondila, M.aw, Borel, H.cj, Borisov, A.ax, Bortolin, C.bz, Bose, S.az, Bosisio, L.cv, Bossú, F.cy, Botje, M.c, Böttger, S.aq, Bourdaud, G.bs, Boyer, B.bx, Braun, M.cs, Braun-Munzinger, P.ae af, Bravina, L.by, Bregant, M.cv, Breitner, T.aq, Bruckner, G.an, Brun, R.an, Bruna, E.bt, Bruno, G.E.e, B... (2010). Transverse momentum spectra of charged particles in proton-proton collisions at vs=900 GeV with ALICE at the LHC . PHYSICS LETTERS. SECTION B, vol. 693 (2); p. 53-68, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.026

K. Aamodt1, A. Abrahantes Quintana2, D. Adamová3, A.M. Adare4, M.M. Aggarwal5, G. Aglieri Rinella6, A.G. Agocs7, S. Aguilar Salazar8, Z. Ahammed9, N. Ahmad10, A.Ahmad Masoodi10, S.U. Ahn11, A. Akindinov12, D. Aleksandrov13, B. Alessandro14, R. Alfaro Molina8, A. Alici15, 16, A. Alkin17, E. Almaráz Aviña8, T. Alt18, V. Altini19, 20, S. Altinpinar21, I. Altsybeev22, C. Andrei23, A. Andronic21, V. Anguelov24, C. Anson25, T. Anticic26, F. Antinori27, 28, P. Antonioli16, L. Aphecetche29, H. Appelshäuser30, N. Arbor31, 32, S. Arcelli15, 16, A. Arend30, N. Armesto33, R. Arnaldi14, T. Aronsson4, I.C. Arsene21, A. Asryan22, A. Augustinus6, R. Averbeck21, T.C. Awes34, J. Äystö35, 36, M.D. Azmi10, M. Bach18, A. Badalà37, Y.W. Baek11, S. Bagnasco14, R. Bailhache30, R. Bala14, 38, R. Baldini Ferroli39, A. Baldisseri40, A. Baldit41, 42, J. Bán43, R. Barbera37, 44, F. Barile19, 20, G.G. Barnaföldi7, L.S. Barnby45, V. Barret41, 42, J. Bartke46, M. Basile15, 16, N. Bastid41, 42, B. Bathen47, G. Batigne29, B. Batyunya48, C. Baumann30, I.G. Bearden49, H. Beck30, I. Belikov50, F. Bellini15, 16, R. Bellwied51, E. Belmont-Moreno8, S. Beole14, 38, I. Berceanu23, A. Bercuci23, E. Berdermann21, Y. Berdnikov52, L. Betev6, A. Bhasin53, A.K. Bhati5, L. Bianchi14, 38, N. Bianchi54, C. Bianchin27, 28, J. Bielcík55, J. Bielcíková3, A. Bilandzic56, E. Biolcati14, 38, A. Blanc41, 42, F. Blanco57, F. Blanco58, D. Blau13, C. Blume30, M. Boccioli6, N. Bock25, A. Bogdanov59, H. Bøggild49, M. Bogolyubsky60, L. Boldizsár7, M. Bombara61, C. Bombonati27, 28, J. Book30, H. Borel40, C. Bortolin27, S. Bose62, F. Bossú14, 38, M. Botje56, S. Böttger24, B. Boyer63, P. Braun-Munzinger21, L. Bravina64, M. Bregant65, 66, T. Breitner24, M. Broz67, R. Brun6, E. Bruna4, G.E. Bruno19, 20, D. Budnikov68, H. Buesching30, O. Busch69, Z. Buthelezi70, D. Caffarri27, 28, X. Cai71, H. Caines4, E. Calvo Villar72, CAMERINI P., 66, V. Cano a Roman6, G. Cara Romeo16, F. Carena6, W. Carena6, F. Carminati6, A. Casanova Díaz54, M. Case... (2011). Strange particle production in proton–proton collisions at vs= 0.9 TeV with ALICE at the LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. Vol. 71, n. 3; p. 1594-1618, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-011-1594-5

K. Aamodt77, N. Abel43, U. Abeysekara75, A. Abrahantes Quintana42, A. Abramyan112, D. Adamová85, M.M. Aggarwal25, G. Aglieri Rinella40, A.G. Agocs18, S. Aguilar Salazar63, Z. Ahammed53, A. Ahmad2, N. Ahmad2, S.U. Ahn38, b, R. Akimoto99, A. Akindinov66, D. Aleksandrov68, B. Alessandro104, R. Alfaro Molina63, A. Alici13, E. Almaráz Aviña63, J. Alme8, T. Alt43, c, V. Altini5, S. Altinpinar31, C. Andrei17, A. Andronic31, G. Anelli40, V. Angelov43, c, C. Anson27, T. Anti¿cí´c113, F. Antinori40, d, S. Antinori13, K. Antipin36, D. Anto´nczyk36, P. Antonioli14, A. Anzo63, L. Aphecetche71, H. Appelshäuser36, S. Arcelli13, R. Arceo63, A. Arend36, N. Armesto91, R. Arnaldi104, T. Aronsson72, I.C. Arsene77, e, A. Asryan97, A. Augustinus40, R. Averbeck31, T.C. Awes74, J. Äystö49, M.D. Azmi2, S. Bablok8, M. Bach35, A. Badalà24, Y.W. Baek38, b, S. Bagnasco104, R. Bailhache31, f, R. Bala103, A. Baldisseri88, A. Baldit26, J. Bán56, R. Barbera23, G.G. Barnaföldi18, L.S. Barnby12, V. Barret26, J. Bartke29, F. Barile5, M. Basile13, V. Basmanov93, N. Bastid26, B. Bathen70, G. Batigne71, B. Batyunya34, C. Baumann70, f, I.G. Bearden28, B. Becker20, g, I. Belikov98, R. Bellwied33, E. Belmont-Moreno63, A. Belogianni4, L. Benhabib71, S. Beole103, I. Berceanu17, A. Bercuci31, h, E. Berdermann31, Y. Berdnikov39, L. Betev40, A. Bhasin48, A.K. Bhati25, L. Bianchi103, N. Bianchi37, C. Bianchin78, J. Biel¿cík80, J. Biel¿cíková85, A. Bilandzic3, L. Bimbot76, E. Biolcati103, A. Blanc26, F. Blanco23, i, F. Blanco61, D. Blau68, C. Blume36, M. Boccioli40, N. Bock27, A. Bogdanov67, H. Bøggild28, M. Bogolyubsky82, J. Bohm95, L. Boldizsár18, M. Bombara55, C. Bombonati78, k, M. Bondila49, H. Borel88, A. Borisov50, C. Bortolin78, ao, S. Bose52, L. Bosisio100, F. Bossú103, M. Botje3, S. Böttger43, G. Bourdaud71, B. Boyer76, M. Braun97, P. Braun-Munzinger31, 32, c, L. Bravina77, M. Bregant100, l, T. Breitner43, G. Bruckner40, R. Brun40, E. Bruna72, G.E. Bruno5, D. Budnikov93, H. Buesching36, P. Buncic40, O.... (2011). Production of pions, kaons and protons in pp collisions at v(s)= 900 GeV with ALICE at the LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 71/2011; p. 1655-1677, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-011-1655-9

M. Agnello, L. Benussi, M. Bertani, H. C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L.Busso, D. Calvo, CAMERINI P., B. Dalena, F. De Mori, G. D'Erasmo, F. L. Fabbri, A. Feliciello, A. Filippib E. M. Fiore, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P.Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, R. Rui, G. Simonetti, R. Wheadon, A. Zenoni, G.Garbarino (2011). Neutron–proton coincidences from Non-Mesonic Weak Decay of p-shell ¿-hypernuclei and determination of the two-nucleon induced process. PHYSICS LETTERS. SECTION B, vol. 701; p. 556-561, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.06.035

M. Agnello, L. Benussi, M. Bertani, H. C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L.Busso, D. Calvo, CAMERINI P., B. Dalena, F. De Mori, G. D'Erasmo, F. L. Fabbri, A. Feliciello, A. Filippib E. M.Fiore, A. ontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P.Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, R. Rui, G. Simonetti, R. Wheadon, A.

Zenoni (2010). Hypernuclear spectroscopy with K- at rest on 7Li, 9Be, 13C and 16O. PHYSICS LETTERS. SECTION B, vol. 698; p. 219-225, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.02.060

6. CANTATORE Giovanni

CANTATORE G., DI DOMENICO G, ZAVATTINI G, CIMINO R, GASTALDI U, RUOSO G, CARUSOTTO S, POLACCO E, BREGANT M, DELLA VALLE F., KARUZA M, MILOTTI E, RAITERI G, ZAVATTINI E (2008). Recent Results from the PVLAS Experiment on the Magnetized Vacuum. In: M. KUSTER, G. RAFFELT, B. BELTRN. Axions. Theory, Cosmology, and Experimental Searches. Lecture Notes in Physics. p. 157-197, BERLIN: Springer-Verlag, ISBN/ISSN: 9783540735175, doi: 10.1007/978-3-540-73518-2_9

E. ZAVATTINI, G. ZAVATTINI, G. RUOSO, G. RAITERI, E. POLACCO, E. MILOTTI, V. LOZZA, M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R. CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2008). New PVLAS results and limits on magnetically induced optical rotation and ellipticity in vacuum. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 77; p. 032006-1-032006-12, ISSN: 1550-7998, doi: 10.1103/PhysRevD.77.032006

M. BREGANT, CANTATORE G., S. CARUSOTTO, R. CIMINO, F. DELLA VALLE, G. DI DOMENICO, U. GASTALDI, M. KARUZA, V. LOZZA, MILOTTI E., E. POLACCO, G. RAITERI, G. RUOSO, E. ZAVATTINI, G. ZAVATTINI (2008). Limits on low energy photon-photon scattering from an experiment on magnetic vacuum birefringence. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 78; p. 032006--, ISSN: 1550-7998, doi: 10.1103/PhysRevD.78.032006

GIOVANNI CANTATORE, FOR THE CAST COLLABORATION E ARIK, S AUNE, D AUTIERO, K BARTH, A BELOV, B BELTRÁN, S BORGHI, F. S BOYDAG, H BRÄUNINGER, CANTATORE G., J. M CARMONA, S CEBRIÁN, S. A CETIN, J. I COLLAR, T DAFNI, M DAVENPORT, L. DI LELLA, O. B DOGAN, C ELEFTHERIADIS, N ELIAS, G FANOURAKIS, E FERRER-RIBAS, H FISCHER, J FRANZ, J GALÁN, E GAZIS, T GERALIS, I GIOMATARIS, S GNINENKO, H GÓMEZ, M HASINOFF, F. H HEINSIUS, I HIKMET, D. H. H HOFFMANN, I. G IRASTORZA, J JACOBY, K JAKOVÄIÄ, D KANG, T KARAGEORGOPOULOU, M KARUZA, K KÖNIGSMANN, R KOTTHAUS, M KRÄMAR, K KOUSOURIS, M

KUSTER, B LAKIÄ, C LASSEUR, A LIOLIOS, A LJUBIÄIÄ, V LOZZA, G LUTZ, G LUZÓN, D MILLER, A MORALES, DECEASED, J MORALES, T NIINIKOSKI, A NORDT, A ORTIZ, T PAPAEVANGELOU, M PIVOVAROFF, A PLACCI, G RAITERI, G RAFFELT, H RIEGE, A RODRÍGUEZ, J RUZ, I SAVVIDIS, Y SEMERTZIDIS, P SERPICO, S. K SOLANKI, R SOUFLI, L STEWART, M TSAGRI, K. VAN BIBBER, J VILLAR, J VOGEL, L WALCKIERS, K ZIOUTAS (2008). Search for low Energy solar Axions with CAST. In: Proceedings of the 4th Patras Workshop on Axions, WIMPs and WISPs. Amburgo, 18-21 Giugno 2008, Amburgo: Verlag Deutsches Elektronen-Synchrotron, p. 43-47, ISBN/ISSN: 9783935702263

CANTATORE G., CIMINO R., KARUZA M., LOZZA V., RAITERI G. (2008). Polarization measurements and their perspectives: PVLAS Phase II. In: Proceedings of the 4th Patras Workshop on Axions, WIMPs and WISPs. Amburgo, 18-21 Giugno 2008, Amburgo: Verlag Deutsches Elektronen-Synchrotron, p. 155-158, ISBN/ISSN: 9783935702263

BREGANT M, CANTATORE G., S. CARUSOTTO, R. CIMINO, F. DELLA VALLE, G. DI DOMENICO, U. GASTALDI, M. KARUZA, V. LOZZA, E. MILOTTI, E. POLACCO, G. RAITERI, G. RUOSO, E. ZAVATTINI, G. ZAVATTINI (in stampa). New precise mesurement of the Cotton-Mouton effect in helium. CHEMICAL PHYSICS LETTERS, ISSN: 0009-2614

ARIK E, AUNE S, AUTIERO D, BARTH K, BELOV A, BELTRÁN B, BORGHI S, BOYDAG F S, BRÄUNINGER H, CANTATORE G., CARMONA J M, CETIN S A, COLLAR J I, DAFNI T, DAVENPORT M, DI LELLA L, DOGAN O B, ELEFTHERIADIS C, ELIAS N, FANOURAKIS G K, FERRER-RIBAS E, FISCHER H, FRANZ J, GALÁN J, GAZIS E, GERALIS T, GIOMATARIS I, GNINENKO S, GÓMEZ H, HASINOFF M, HEINSIUS F H, HIKMET I, HOFFMANN D H H, IRASTORZA I G, JACOBY J, JAKOVCIC K, KANG D, KARAGEORGOPOULOU T, KARUZA M, KÖNIGSMANN K C, KOTTHAUS R, KRCMAR M, KOUSOURIS K, KUSTER M, LAKIC B, LASSEUR C, LIOLIOS A, LJUBICIC A, LOZZA V, LUTZ G, LUZÓN G, MILLER D, MORALES J, NIINIKOSKI T, NORDT A, ORTIZ A, PAPAEVANGELOU T, PIVOVAROFF M J, PLACCI A, RAITERI G, RAFFELT G, RIEGE H, RODRÍGUEZ A, RUZ J, SAVVIDIS I, SEMERTZIDIS Y, SERPICO P, SOLANKI S K, SOUFLI R, STEWARD L, TSAGRI M, VAN BIBBER K, VILLAR J, VOGEL J, WALCKIERS L, ZIOUTAS K (2008). Solar axion search with the CAST experiment. In: Proceedings of the 34th International Conference in High Energy Physics (ICHEP08). Philadelphia, 2008, Philadelphia: SLAC eConf, vol. eConf C080730, p. eConf C080730-1-eConf C080730-

E. ZAVATTINI, G. ZAVATTINI, G. RUOSO, E. POLACCO, MILOTTI E., M. KARUZA, U.GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R. CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2007). PVLAS : probing vacuum with polarized light. NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS, vol. 164; p. 264-269, ISSN: 0920-5632, doi: 10.1016/j.nuclphysbps.2006.11.096

E. ZAVATTINI, G. ZAVATTINI, P.TEMNIKOV, G. RUOSO, G.RAITER, E.POLACCO, E. MILOTTI, M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R.CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2007). Experimental observation of vacuum birefringence. NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS, vol. 174; p. 233-236, ISSN: 0920-5632

E. ZAVATTINI, G. ZAVATTINI, P.TEMNIKOV, G. RUOSO, G.RAITERI, E.POLACCO, E. MILOTTI, M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R.CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2007). Observation of vacuum induced birefringence induced by a transverse magnetic field. In: High Energy Physics ICHEP'06. Proceedings of the 33rd International Conference. Mosca, Russia, 26 luglio - 2 agosto 2006, SINGAPORE: World Scientific, p. 218-221

E. ZAVATTINI, G. ZAVATTINI, G. RUOSO, G.RAITERI, E.POLACCO, E. MILOTTI, M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R.CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2007). PVLAS. In: XII International Workshop on “Neutrino Telescopes”. Venezia, Italia, 6-9 marzo 2007, PADOVA: Papergraf, p. 373-395

Guendelman E.I., Shilon I., CANTATORE G., Zioutas K. (2010). Photon production from the scattering of axions out of a solenoidal magnetic field. JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS, vol. 2010; p. 31-46, ISSN: 1475-7516, doi: 10.1088/1475-7516/2010/06/031

Arik M., Aune S., Barth K., Belov A., Borghi S., Brauninger H., CANTATORE G., Carmona JM., Cetin SA., Collar JI., Dafni T., Davenport M., Eleftheriadis C., Elias N., Ezer C., Fanourakis G., Ferrer-Ribas E., Friedrich P., Galan J., Garcia JA., Gardikiotis A., Gazis EN., Geralis T., Giomataris I., Gninenko S., Gomez H., Gruber E., Guthorl T., Hartmann R., Haug F., Hasinoff MD., Hoffmann DHH., Iguaz FJ., Irastorza IG., Jacoby J., Jakovcic K., Karuza M., Konigsmann K., Kotthaus R., Krcmar M., Kuster M., Lakic B., Laurent JM., Liolios A., Ljubicic A., Lozza V., Lutz G., Luzon G., Morales J., Niinikoski T., Nordt A., Papaevangelou T., Pivovaroff MJ., Raffelt G., Rashba T., Riege H., Rodriguez A., Rosu M., Ruz J., Savvidis I., Silva PS., Solanki SK., Stewart L., Tomas A., Tsagri M., van Bibber K., Vafeiadis T., Villar JA., Vogel JK., Yildiz SC., Zioutas K. (2011). Search for Sub-eV Mass Solar Axions by the CERN Axion Solar Telescope with (3)He Buffer Gas. PHYSICAL REVIEW LETTERS, vol. 107(26); p. ---, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.107.261302

CANTATORE G., Karuza M., Lozza V., Raiteri G. (2010). Search for solar Axion Like Particles in the low energy range at CAST. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 617, n. 1-3; p. 502-504, ISSN: 0168-9002, doi: 10.1016/j.nima.2009.10.098

CANTATORE G., Vitale L. (2011). Gettys Fisica 2 - Elettromagnetismo, Onde, Ottica. Milano: McGraw-Hill, ISBN: 9788838665721

I. G. Irastorza, S. Aune, K. Barth, A. Belov, S. Borghi, H. Bräuninger, CANTATORE G., J. M. Carmona, S. A. Cetin, J. I. Collar, T. Dafni, M. Davenport, C. Eleftheriadis, N. Elias, C. Ezer, G. Fanourakis, E. Ferrer-Ribas, P. Friedrich, J. Galán, A. Gardikiotis, E. N. Gazis, T. Geralis, I. Giomataris, S. Gninenko, H. Gómez, E. Gruber, T. Guthörl, R. Hartmann, F. Haug, M. D. Hasinoff, D. H. H. Hoffmann, F. J. Iguaz, J. Jacoby, K. Jakovcic, M. Karuza, K. Königsmann, R. Kotthaus, M. Krcmar, M. Kuster, B. Lakic, J. M. Laurent, A. Liolios, A. Ljubicic, V. Lozza, G. Lutz, G. Luzón, J. Morales, T. Niinikoski, A. Nordt, T. Papaevangelou, M. J. Pivovaroff, G. Raffelt, T. Rashba, H. Riege, A. Rodríguez, M. Rosu, J. Ruz, I. Savvidis, P. S. Silva, S. K. Solanki, R. Soufli, L. Stewart, A. Tomás, M. Tsagri, K. van. Bibber, T. Vafeiadis, J. Villar, J. K. Vogel, S. C. Yildiz, K. Zioutas (2011). Latest results and prospects of the CERN Axion Solar Telescope. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 309, n. 1; p. ---, ISSN: 1742-6596

Papaevangelou T., Aune S., Barth K., Belov A., Borghi S., Brauninger H., CANTATORE G., Carmona J.M., Cetin S.A., Collar J.I., Dafni T., Davenport M., Eleftheriadis C., Elias N., Ezer C., Fanourakis G., Ferrer-Ribas E., Fischer H., Franz J., Friedrich P., Galan J., Gardikiotis A., Gazis E.N., Geralis T., Giomataris I., Gninenko S., Gomez H., Gruber E., Guthorl T., Hartmann R., Haug F., Hasinoff M., Hoffmann D.H.H., Iguaz J., Irastorza I.G., Jacoby J., Jakovcic K., Kang D., Karageorgopoulou T., Karuza M., Konigsmann K., Kotthaus R., Krcmar M., Kousouris K., Kuster M., Lakic B., Lang P., Lasseur C., Laurent J.M., Liolios A., Ljubicic A., Lozza V., Lutz G., Luzon G., Miller D.W., Mirizzi A., Morales J., Niinikoski T., Nordt A., Pivovaroff M., Raiteri G., Raffelt G., Rashba T., Riege H., Rodriguez A., Rosu M., Ruz J., Savvidis I., Semertzidis Y., Serpico P., Silva P.S., Solanki S K., Soufli R., Stewart L., Tomas A., Tsagri M., van Bibber K., Vafeiadis T., Villar J., Vogel J.K., Walckiers L., Wong Y., Yildiz S.C., Zioutas K. (2010). CAST: Recent results & future outlook. In: 6th Patras Workshop on Axions, WIMPs and WISPs. Zurigo, Svizzera, 5-9/7/2010, Amburgo: DESY - HamburgVerlag Deutsches Elektronen-Synchrot, p. ---, ISBN/ISSN: 9783935702485, doi: 10.3204/DESY-PROC-2010-03/papaevangelou thomas

I. G. Irastorza, F. T. Avignone, CANTATORE G., S. Caspi, J. M. Carmona, T. Dafni, M. Davenport, A. Dudarev, G. Fanourakis, E. Ferrer-Ribas, J. Galan, J. A. Garcia, T. Geralis, I. Giomataris, S. Gninenko, H. Gomez, D. H. H. Hoffmann, F. J. Iguaz, K. Jakovcic, M. Krcmar, B. Lakic, G. Luzon, A. Lindner, M. Pivovaroff, T. Papaevangelou, G. Raffelt, J. Redondo, A. Rodriguez, S. Russenschuck, J. Ruz, I. Shilon, H. Ten Kate, A. Tomas, S. Troitsky, K. van Bibber, J. A. Villar, J. Vogel, L. Walckiers, K. Zioutas (2012). The International Axion Observatory (IAXO). In: 7th Patras Workshop on Axions, WIMPs and WISPs. Mykonos, Grecia, 26/6/2011-1/7/2011, Amburgo: DESY - Hamburg Verlag, vol. DESY-PROC-2011-04, p. 98-101, ISBN/ISSN: 9783935702591

CANTATORE G., Karuza M., Lozza V. (2010). Search for solar ALPS in the low energy range at CAST. In: Proceedings of the 5th Patras Workshop on Axions, WIMPs and WISPs PATRAS 2009. Durham, UK, 13-17 Luglio 2009, Amburgo: Verlag Deutsches Elektronen-Synchrotron, p. 73-77, ISBN/ISSN: 9783935702379

Baker O.K., CANTATORE G., Jaeckel J., Mueller. G. (2010). Notes from the 3rd Axion Strategy Meeting. In: Proceedings of the international conference Axions 2010. Gainesville, FL, USA, 15-17 Gennaio 2010, Melville, NY, USA: American Institute of Physics, p. 175-179, ISBN/ISSN: 9780735408241, doi: 10.1063/1.3489551

CANTATORE G. (2010). Polarization measurements and their perspectives at the low energy frontier. In: Proceedings of the 5th Patras Workshop on Axions, WIMPs and WISPs PATRAS 2009. Durham, UK, 13-17 Luglio 2009, Amburgo: Verlag Deutsches Elektronen-Synchrotron, p. 120-124, ISBN/ISSN: 9783935702379, doi: 10.3204/DESY-PROC-2009-05/cantatore giovanni

BREGANT M, CANTATORE G., CARUSOTTO S, CIMINO R, DELLA VALLE F., DI DOMENICO G, GASTALDI U, KARUZA M, LOZZA V, MILOTTI E, POLACCO E, RAITERI G, RUOSO E, ZAVATTINI E, ZAVATTINI G (2009). New precise measurement of the Cotton-Mouton effect in helium. CHEMICAL PHYSICS LETTERS, vol. 471; p. 322-325, ISSN: 0009-2614, doi: 10.1016/j.cplett.2009.02.035

B Lakic, M Arik, S Aune, K Barth, A Belov, S Borghi, H Bräuninger, CANTATORE G., J M Carmona, S A Cetin, J I Collar, T Dafni, M Davenport, C Eleftheriadis, N Elias, C Ezer, G Fanourakis, E Ferrer-Ribas, P Friedrich, J Galán, J A García, A Gardikiotis, E N Gazis, T Geralis, I Giomataris, S Gninenko, H Gómez, E Gruber, T Guthörl, R Hartmann, F Haug, M D Hasinoff, D H H Hoffmann, F J Iguaz, I G Irastorza, J Jacoby, K Jakovcic, M Karuza, K Königsmann, R Kotthaus, M Krcmar, M Kuster, J M Laurent, A Liolios, A Ljubicic, V Lozza, G Lutz, G Luzón, J Morales, T Niinikoski, A Nordt, T Papaevangelou, M J Pivovaroff, G Raffelt, T Rashba, H Riege, A Rodríguez, M Rosu, J Ruz, I Savvidis, P S Silva, S K Solanki, L Stewart, A Tomás, M Tsagri, K van Bibber, T Vafeiadis, J Villar, J K Vogel, S C Yildiz, K Zioutas (2012). Status and perspectives of the CAST experiment. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 375; p. 022001-1-022001-4, ISSN: 1742-6596, doi: 10.1088/1742-6596/375/1/022001

CANTATORE G. (2012). Notes from the 5th Axion Strategy Meeting. In: 7th Patras Workshop on Axions, WIMPs and WISPs (PATRAS 2011). Mykonos, Grecia, 26/1-1/7 2011, Amburgo: Deutsche Elektronen-Synchrotron DESY Verlag, vol. 2011-04, p. 88-90, ISBN/ISSN: 9783935702591, doi: 10.3204/DESY-PROC-2011-04/cantatore_giovanni

T. Dafni, S. Aune, K. Barth, A. Belov, S. Borghi, H. Brauninger, CANTATORE G., J.M. Carmona, S.A. Cetin, J.I. Collar, M. Davenport, C. Eleftheriadis, N. Elias, C. Ezer, G. Fanourakis, E. Ferrer-Ribas, P. Friedrich, J. Galan, J.A. Garcia, A. Gardikiotis, E.N. Gazis, T. Geralis, I. Giomataris, S. Gninenko, H. Gomez, E. Gruber, T. Guthorl, R. Hartmann, F. Haug, M.D. Hasinoff, D.H.H. Hoffmann, F.J. Iguaz, I.G. Irastorza, J. Jacoby, K. Jakovcic, M. Karuza, K. Konigsmann, R. Kotthaus, M. Krcmar, M. Kuster, B. Lakic, J.M. Laurent, A. Liolios, A. Ljubicic, V. Lozza, G. Lutz, G. Luzon, J. Morales, T. Niinikoski, A. Nordt, T. Papaevangelou, M.J. Pivovaroff, G. Raffelt, T. Rashba, H. Riege, A. Rodriguez, M. Rosu, J. Ruz, I. Savvidis, P.S. Silva, S.K. Solanki, L. Stewart, A. Tomas, M. Tsagri, K. van Bibber, T. Vafeiadis, J. Villar, J.K. Vogel, S.C. Yildiz, K. Zioutas (2012). CAST: Status and latest results. In: 7th Patras Workshop on Axions, WIMPs and WISPs . Mykonos, Grecia, 26/6-1/7 2011, Amburgo: Deutsches Elektronen-Synchrotron DESY Verlag, vol. DESY-PROC-2011-04, p. 93-97, ISBN/ISSN: 9783935702591, doi: 10.3204/DESY-PROC-2011-04/dafni_theopisti

Ferrer-Ribas E., Arik M., Aune S., Barth K., Belov A., Borghi S., Bräuninger H., CANTATORE G., Carmona J. M., Cetin S. A., Collar J. I., Dafni T., Davenport M., Eleftheriadis C., Elias N., Ezer C., Fanourakis G., Friedrich P., Galán J., García J. A., Gardikiotis A., Garza J. G., Gazis E. N., Geralis T., Giomataris I., Gninenko S., Gómez H., Gruber E., Guthörl T., Hartmann R., Haug F., Hasinoff M. D., Hoffmann D. H. H., Iguaz F. J., Irastorza I. G., Jacoby J., Jakovvcic K., Karuza M., Königsmann K., Kotthaus R., Krcmar M., Kuster M., Lakic B., Laurent J. M., Liolios A., Ljubicic A., Lozza V., Lutz G., Luzón G., Morales J., Niinikoski T., Nordt A., Papaevangelou T., Pivovaroff M. J., Raffelt G., Rashba T., Riege H., Rodríguez A., Rosu M., Ruz J., Savvidis I., Silva P. S., Solanki S. K., Stewart L., Tomás A., Tsagri M., van Bibber K., Vafeiadis T., Villar J., Vogel J. K., Yildiz S. C., Zioutas K. (in stampa). Results and perspectives of the solar axion search with the CAST experiment. In: Proceedings of the 24th Rencontres de Blois . Blois, Francia, 27/5-1/6 2012, Singapore: World Scientific, p. ---

7. DELLA RICCA Giuseppe

DELLA RICCA G., ET AL (2010). (the CMS DQM group) CMS data quality monitoring: systems and experiences. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 219; p. 072020--, ISSN: 1742-6596

DELLA RICCA G., ET AL (2010). (the CMS DB group) The CMS ECAL database services for detector control and monitoring. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 219; p. 022016--, ISSN: 1742-6588

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Transverse momentum and pseudorapidity distributions of charged hadrons in pp collisions at sqrt{s} = 0.9 and 2.36 TeV

. JOURNAL OF HIGH ENERGY PHYSICS, vol. 02; p. 041--, ISSN: 1126-6708

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance study of barrel CMS resistive plate chambers with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03017--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Precise mapping of the magnetic field in the CMS barrel yoke using cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03021--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Time reconstruction and performance of the CMS electromagnetic calorimeter. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03011--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Commissioning of the CMS experiment and the cosmic run at four tesla. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03001--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Identification and filtering of uncharacteristic noise in the CMS hadron calorimeter. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03014--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of CMS muon reconstruction in cosmic-ray events. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03022--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Fine synchronization of the CMS muon drift-tube local trigger using cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03004--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance and operation of the CMS electromagnetic calorimeter. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03010--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Measurement of the muon stopping power of lead tungstate. JOURNAL OF INSTRUMENTATION, vol. 5; p. P03007--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of the CMS hadron calorimeter with cosmic ray muons and LHC beam data. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03012--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of CMS hadron calorimeter timing and synchronization using test beam, cosmic ray, and LHC beam data. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03013--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of the CMS cathode strip chambers with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03018--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of the CMS Level-1 Trigger during commissioning with cosmic ray muons and LHC beams. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03002--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of the CMS drift-tube chamber local trigger with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03003--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Commissioning of the CMS High-Level Trigger with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03005--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Performance of the CMS drift tube chambers with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03015--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Commissioning and performance of the CMS pixel tracker with cosmic ray muons. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03007--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Commissioning and performance of the CMS silicon strip tracker with cosmic ray muons. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03008--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) CMS data processing workflows during an extended cosmic ray run. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03006--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Aligning the CMS muon chambers with the muon alignment system during an extended cosmic ray run. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03019--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Alignment of the CMS muon system with cosmic-ray and beam-halo muons. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03020--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Calibration of the CMS drift tube chambers and measurement of the drift velocity with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03016--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Alignment of the CMS silicon tracker during commissioning with cosmic rays. JOURNAL OF INSTRUMENTATION, vol. 5; p. T03009--, ISSN: 1748-0221

DELLA RICCA G., ET AL (2010). (the CMS Collaboration) Transverse-momentum and pseudorapidity distributions of charged hadrons in pp collisions at sqrt{s} = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 105; p. 022002--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Charged particle multiplicities in pp interactions at sqrt(s) = 0.9, 2.36, and 7.0 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 01; p. 079--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Stopped Gluinos in pp collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 011801--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Quark Compositeness with the Dijet Centrality Ratio in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 105; p. 262001--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) First Measurement of Top-Quark Pair Production Cross Section in Proton-Proton Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 695; p. 424--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Upsilon production cross section in pp collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 83; p. 112004--, ISSN: 1550-7998

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Pair Production of First-Generation Scalar Leptoquarks in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 201802--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Pair Production of Second-Generation Scalar Leptoquarks in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 201803--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Microscopic Black Hole Signatures at the Large Hadron Collider. PHYSICS LETTERS. SECTION B, vol. 697; p. 434--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Isolated Prompt Photon Production Cross Section in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 082001--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurements of Inclusive W and Z Cross Sections in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 01; p. 080--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Prompt and non-prompt J/psi cross sections in pp collisions at sqrt(s) = 7 TeV. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 71; p. 1575--, ISSN: 1434-6044

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of Dijet Angular Distributions and Search for Quark Compositeness in pp Collisions at 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 201084--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Observation and studies of jet quenching in PbPb collisions at sqrt(s_NN) = 2.76 TeV. PHYSICAL REVIEW. C, NUCLEAR PHYSICS, vol. 84; p. 024906--, ISSN: 0556-2813

DELLA RICCA G., MONTANINO D., ET AL. (2011). (the CMS Collaboration) Measurement of BBbar Angular Correlations based on Secondary Vertex Reconstruction at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 03; p. 136--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Strange Particle Production in pp collisions at sqrt(s) = 0.9 and 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 05; p. 064--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for a heavy gauge boson W' in final states with electrons and large missing transverse energy in pp collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 698; p. 21--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Heavy Stable Charged Particles in pp collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 03; p. 024--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) First Measurement of Hadronic Event Shapes in pp Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 699; p. 48--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Supersymmetry in pp Collisions at 7 TeV in Events with Jets and Missing Transverse Energy. PHYSICS LETTERS. SECTION B, vol. 698; p. 196--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Inclusive b-hadron production cross section with muons in pp collisions at 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 03; p. 090--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Dijet Azimuthal Decorrelations in pp Collisions at 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 122003--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of Bose–Einstein Correlations in pp Collisions at sqrt(s) = 0.9 and 7 TeV at the LHC. JOURNAL OF HIGH ENERGY PHYSICS, vol. 05; p. 029--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Resonances in the Dilepton Mass Distribution in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 05; p. 093--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the B+ Production Cross Section in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 112001--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the differential dijet production cross section in proton-proton collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 7001; p. 87--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Inclusive Z Cross Section via Decays to Tau Pairs in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 117--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Missing transverse energy performance of the CMS detector. JOURNAL OF INSTRUMENTATION, vol. 6; p. P09001--, ISSN: 1748-0221

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Three-Jet Resonances in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 101801--, ISSN: 0031-9007

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Dependence on pseudorapidity and on centrality of charged hadron production in PbPb collisions at sqrt(s_NN) = 2.76 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 141--, ISSN: 1029-8479

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Resonances in the Dijet Mass Spectrum from 7 TeV pp Collisions at CMS. PHYSICS LETTERS. SECTION B, vol. 704; p. 123--, ISSN: 0370-2693

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Differential Cross Section for Isolated Prompt Photon Production in pp Collisions at 7 TeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84; p. 052011--, ISSN: 1550-7998

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the ttbar Production Cross Section in pp Collisions at sqrt(s) = 7 TeV using the Kinematic Properties of Events with Leptons and Jets. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 72; p. 1721--, ISSN: 1434-6044

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for New Physics with Jets and Missing Transverse Momentum in pp collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 155--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Light Resonances Decaying into Pairs of Muons as a Signal of New Physics. JOURNAL OF HIGH ENERGY PHYSICS, vol. 07; p. 098--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Same-Sign Top-Quark Pair Production at sqrt(s) = 7 TeV and Limits on Flavour Changing Neutral Currents in the Top Sector. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 005--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the 3-jet to 2-jet Cross Section Ratio in pp Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 702; p. 336--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Underlying Event Activity at the LHC with sqrt(s) = 7 TeV and Comparison with sqrt(s) = 0.9 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 09; p. 109--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Supersymmetry in Events with b Jets and Missing Transverse Momentum at the LHC. JOURNAL OF HIGH ENERGY PHYSICS, vol. 07; p. 113--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the t-channel single top quark production cross section in pp collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 091802--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the B0s Production Cross Section with B0s -> J/psi phi Decays in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84; p. 052008--, ISSN: 1550-7998

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) A search for excited leptons in pp Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 704; p. 143--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for supersymmetry in pp collisions at sqrt(s) = 7 TeV in events with a single lepton, jets, and missing transverse momentum. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 156--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of Wgamma and Zgamma production in pp collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 701; p. 535--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Charged particle transverse momentum spectra in pp collisions at sqrt(s) = 0.9 and 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 08; p. 086--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the B0 Production Cross Sections in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 252001--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Polarization of W Bosons with Large Transverse Momenta in W+Jets Events at a pp Collider. PHYSICAL REVIEW LETTERS, vol. 107; p. 021802--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Long-range and short-range dihadron angular correlations in central PbPb collisions at sqrt(s) = 2.76 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 07; p. 076--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Inclusive Jet Cross Section in pp Collisions at 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 132001--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for supersymmetry in events with a lepton, photon and large missing transverse energy. JOURNAL OF HIGH ENERGY PHYSICS, vol. 06; p. 093--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the ttbar production cross section and the top quark mass in the dilepton channel in pp collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 07; p. 049--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Suppression of Upsilon excited states in PbPb collisions at sqrt(s_NN) = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 052302--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for First Generation Scalar Leptoquarks in the enujj Channel in pp Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 703; p. 246--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for new physics with same-sign isolated di-lepton events with jets and missing transverse energy at the LHC. JOURNAL OF HIGH ENERGY PHYSICS, vol. 06; p. 077--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Large Extra Dimensions in the Diphoton Final State at the Large Hadron Collider. JOURNAL OF HIGH ENERGY PHYSICS, vol. 05; p. 085--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the lepton charge asymmetry in inclusive W production in pp collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 04; p. 050--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for a W' boson decaying to a muon and a neutrino in pp collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 701; p. 260--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of W+W- Production and Search for the Higgs Boson in pp Collisions at 7 TeV. PHYSICS LETTERS. SECTION B, vol. 699; p. 25--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Physics Beyond the Standard Model in Opposite-sign Dilepton Events in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 06; p. 026--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Neutral Minimal Supersymmetric Standard Model Higgs Bosons Decaying to Tau Pairs in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 231801--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for a Heavy Bottom-like Quark in pp Collisions at sqrt(s) = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 701; p. 204--, ISSN: 0370-2693

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Study of Z boson production in PbPb collisions at sqrt(s_NN) = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 212301--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for Supersymmetry in pp Collisions at sqrt(s) = 7 TeV in Events with Two Photons and Missing Transverse Energy. PHYSICAL REVIEW LETTERS, vol. 106; p. 211802--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for New Physics with a Mono-Jet and Missing Transverse Energy in pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 201804--, ISSN: 0031-9007

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of energy flow at large pseudorapidities in pp collisions at sqrt(s) = 0.9 TeV and 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 11; p. 148--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the t-tbar Production Cross Section in pp Collisions at 7 TeV in Lepton + Jets Events Using b-quark Jet Identification. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84; p. 092004--, ISSN: 1550-7998

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Drell-Yan Cross Section in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 10; p. 007--, ISSN: 1029-8479

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Determination of Jet Energy Calibration and Transverse Momentum Resolution in CMS. JOURNAL OF INSTRUMENTATION, vol. 6; p. P11002--, ISSN: 1748-0221

DELLA RICCA G., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the Inclusive W and Z Production Cross Sections in pp Collisions at sqrt(s) = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 10; p. 132--, ISSN: 1029-8479

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for B0s -> mu+mu- and B0 -> mu+mu- decays in pp collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 191802--, ISSN: 0031-9007

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Measurement of the weak mixing angle with the Drell-Yan process in proton-proton collisions at the LHC. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84; p. 112002--, ISSN: 1550-7998

DELLA RICCA G., MARONE M., MONTANINO D., ET AL. (2011). (the CMS Collaboration) Search for Supersymmetry at the LHC in Events with Jets and Missing Transverse Energy. PHYSICAL REVIEW LETTERS, vol. 107; p. 221804--, ISSN: 0031-9007

DELLA RICCA G., MARONE M., MONTANINO D., ET AL (2011). (the CMS Collaboration) Search for a Vector-like Quark with Charge 2/3 in t + Z Events from pp Collisions at sqrt(s) = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 107; p. 271802--, ISSN: 0031-9007

8. FRANCIOSI Alfonso

PICCIN M, BAIS G, GRILLO V, JABEEN F, DE FRANCESCHI S, CARLINO E, LAZZARINO M, ROMANATO F, BUSINARO L, RUBINI S, MARTELLI F, FRANCIOSI A. (2007). Growth by molecular beam epitaxy and electrical characterization of GaAs nanowires. PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol. 37; p. 134-137, ISSN: 1386-9477

BISOGNIN G, DE SALVADOR D, NAPOLITANI E, BERTI M, POLIMENI A, FELICI M, CAPIZZI M, BAIS G, JABEEN F, PICCIN M, RUBINI S, MARTELLI F, FRANCIOSI A. (2007). Thermal Evolution of Small N-D Complexes in Deutereted Diluted Nitrides Revealed by High-Resolution In Situ X-ray Diffraction. PHYSICA STATUS SOLIDI. A, APPLICATIONS AND MATERIALS SCIENCE, vol. 204; p. 2766-2771, ISSN: 1862-6300

MARTELLI F, PICCIN M, BAIS G, JABEEN F, AMBROSINI S, RUBINI S, FRANCIOSI A. (2007). Photoluminescence of GaAs Nanowires by Mn-catalysed Molecular Beam Epitaxy. NANOTECHNOLOGY, vol. 18; p. 125603 1-125603 4, ISSN: 0957-4484

BERTI M, BISOGNIN G, DE SALVADOR D, NAPOLITANI E, VANGELISTA S, POLIMENI A, CAPIZZI M, BOSCHERINI M, CIATTO G, RUBINI S, MARTELLI F, FRANCIOSI A. (2007). Formation and Dissolution of D-N Complexes in Dilute Nitrides. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 76; p. 205323 1-205323 8, ISSN: 1098-0121

RUBINI S, PICCIN M, BAIS G, JABEEN F, MARTELLI F, FRANCIOSI A. (2007). GaAs Nanowires by Mn-catalysed Molecular Beam Epitaxy. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 61; p. 992-996, ISSN: 1742-6588

GEDDO M, CIABATTONI T, GUIZZETTI G, GALLI M, PATRINI M, POLIMENI A, TROTTA R, CAPIZZI M, BAIS G, PICCIN M, RUBINI S, MARTELLI F, FRANCIOSI A. (2007). Photoreflectance and Reflectance Investigation of Deuterium-irradiated GaAsN. APPLIED PHYSICS LETTERS, vol. 90; p. 091907 1-091907 3, ISSN: 0003-6951

BEGUM N, BHATTI A.S, PICCIN M, BAIS G, JABEEN F, RUBINI S, MARTELLI F, FRANCIOSI A. (2008). Raman Scattering from GaAs Nanowires Grown by Molecular Beam Epitaxy. Advanced Materials Research. vol. 31, p. 23-26, STAFA-ZURICH: Trans Tech Publications, ISBN/ISSN: 0878494715

BASU J, DIVAKAR R, NOWAK J, HOFMANN S, COLLI A, FRANCIOSI A., CARTER C.B (2008). Structure and Growth Mechanism of ZnSe Nanowires. JOURNAL OF APPLIED PHYSICS, vol. 104; p. 064302 1-064302 8, ISSN: 0021-8979

BISOGNIN G, DE SALVADOR D, NAPOLITANI E, BERTI M, POLIMENI A, CAPIZZI M, RUBINI S, MARTELLI F, FRANCIOSI A. (2008). High Resolution X-ray Diffraction In-situ Studies of Very Small Complexes: the Case of Hydrogenate Dilute Nitrides. JOURNAL OF APPLIED CRYSTALLOGRAPHY, vol. 41; p. 366-372, ISSN: 0021-8898

SALVIATI G, LAZZARINI L, ARMANI N, FELICI M, POLIMENI A, CAPIZZI M, MARTELLI F, RUBINI S, FRANCIOSI A. (2008). Controlled Band Gap Modulation of Hydrogenated Dilute Nitrides by SEM-Cathodoluminescence. In: Miscroscopy of Semicondutor Materials 2007, Springer Proceedings in PhysicsSpringer, vol. 120, p. 453-458, ISBN/ISSN: 978-1-402/0930-8989, doi: 10.1007/978-1-4020-8615-1

9. GIRARDI Marisa

BARRENA R, BOSCHIN W, GIRARDI M., SPOLAOR M (2007). Internal dynamics of the radio-halo cluster Abell 773: a multiwavelength analysis. ASTRONOMY & ASTROPHYSICS, vol. 467; p. 37-48, ISSN: 0004-6361

ORRU' E, MURGIA M, FERETTI L, GOVONI F, BRUNETTI G, GIOVANNINI G, GIRARDI M., SETTI, G (2007). Low-frequency study of two clusters of galaxies: A2744 and A2219. ASTRONOMY & ASTROPHYSICS, vol. 467; p. 943-954, ISSN: 0004-6361

DEMARCO R, ROSATI P, LIDMAN C, GIRARDI M., NONINO M, RETTURA A, STRAZZULLO V, VAN DER WEL A, FORD H. C, MAINIERI V, HOLDEN B. P, STANFORD S. A, BLAKESLEE J. P, ZIRM A. W, BENITEZ N, HOMEIER N. L, ILLINGWORTH G. D, INFANTE L, JEE M. J, MEI S, MENANTEAU F, MOTTA V, OVERZIER R. A, POSTMAN M, TOZZI P, ZHENG W, CLAMPIN M, HARTIG G (2007). VLT and ACS Oservations of RDCS J1252.9-292: Dynamical Structure and Galaxy Populations in a Massive Cluster at z = 1.237. THE ASTROPHYSICAL JOURNAL, vol. 663; p. 164-182, ISSN: 0004-637X

BARRENA R, BOSCHIN W, GIRARDI M., SPOLAOR M (2007). The dynamical status of the galaxy cluster Abell 115. ASTRONOMY & ASTROPHYSICS, vol. 469; p. 861-872, ISSN: 0004-6361

BOSCHIN W, BARRENA R, GIRARDI M., SPOLAOR M (2008). Optical analysis of the poor clusters Abell 610, Abell 725, and Abell 796, containing diffuse radio sources. ASTRONOMY & ASTROPHYSICS, vol. 487; p. 33-46, ISSN: 0004-6361

PIRO L, DEN, HERDER J. W, OHASHI T, AMATI L, ATTEIA J. L, BARTHELMY S, BARBERA M, BARRET D, BASSO S, BOER M, COAUTHORS, GIRARDI M., COAUTHORS (2008). EDGE: Explorer of diffuse emission and gamma-ray burst explosion. EXPERIMENTAL ASTRONOMY, ISSN: 0922-6435

GIRARDI M., BOSCHIN W, BARRENA R, ELLINGSON E (2008). Cluster Abell 520: a perspective based on member galaxies. A cluster forming at the crossing of three filaments?. ASTRONOMY & ASTROPHYSICS, vol. 491; p. 379-395, ISSN: 0004-6361

BOSCHIN W, BARRENA R, GIRARDI M. (2009). Internal dynamics of the galaxy cluster Abell 959. ASTRONOMY & ASTROPHYSICS, vol. 495; p. 15-26, ISSN: 0004-6361

BARRENA R, GIRARDI M., BOSCHIN W, DASI M (2009). Internal dynamics of Abell 1240: a galaxy cluster with symmetric double radio relics. ASTRONOMY & ASTROPHYSICS, vol. 503; p. 357-371, ISSN: 0004-6361

GIRARDI M., Boschin W., Barrena R. (2010). Internal dynamics of Abell 2294: a massive, likely merging cluster. ASTRONOMY & ASTROPHYSICS, vol. 517; p. A65-14 pages, ISSN: 0004-6361

Boschin W., Barrena R., GIRARDI M. (2010). The complex structure of Abell 2345: a galaxy cluster with non-symmetric radio relics. ASTRONOMY & ASTROPHYSICS, vol. 521; p. A78-12 pages, ISSN: 0004-6361

Zhang Y.-Y., Andernach H., Caretta C. A., Reiprich T. H., Böhringer H., Puchwein E., Sijacki D., GIRARDI M. (2011). HIFLUGCS: Galaxy cluster scaling relations between X-ray luminosity, gas mass, cluster radius, and velocity dispersion. ASTRONOMY & ASTROPHYSICS, vol. 526; p. A105--, ISSN: 0004-6361

Aguerri J. A. L., GIRARDI M., Boschin W., Barrena R., Mendez-Abreu J., Sanchez-Janssen R., Borgani S., Castro-Rodriguez N., Corsini E. M., del Burgo C., D'Onghia E., Iglesias-Paramo J., Napolitano N., Vilchez J. M. (2011). Fossil groups origins. I. RX J105453.3+552102 a very massive and relaxed system at z sim 0.5. ASTRONOMY & ASTROPHYSICS, vol. 527; p. A143--, ISSN: 0004-6361

Barrena R., GIRARDI M., Boschin W., de Grandi S., Eckert D., Rossetti M. (2011). Internal dynamics of the galaxy cluster Abell 545. The ideal case where to study the simultaneous formation of a galaxy system and its brightest galaxy. ASTRONOMY & ASTROPHYSICS, vol. 529; p. A128--, ISSN: 0004-6361

Giovannini G., Feretti L., GIRARDI M., Govoni F., Murgia M., Vacca V., Bagchi J. (2011). A giant radio halo in the low luminosity X-ray cluster Abell 523. ASTRONOMY & ASTROPHYSICS, vol. 530; p. L5--, ISSN: 0004-6361

GIRARDI M., Bardelli S., Barrena R., Boschin W., Gastaldello F., Nonino M. (2011). Internal dynamics of Abell 2254: a merging galaxy cluster with a clumpy, diffuse radio emission. ASTRONOMY & ASTROPHYSICS, vol. 536; p. A89--, ISSN: 0004-6361

10. GREGORIO Anna

GREGORIO A., MICCOLIS M, STRINGHETTI L, ZACCHEI A (2008). Planck LFI User Manual Document, p. 1-530, Herschel - Planck Mission User Manual Documents, 2008

STRINGHETTI L, GREGORIO A., MENNELLA A, MORGANTE G, VILLA F, CUTTAIA F, BERSANELLI M (2007). Testing Plan of the LFI instrument during the Planck Commissioning and CPV phase, p. 1-37, Plan of the operations during the commissioning and calibration phases of the Planck LFI instrument, Novembre 2007

GREGORIO A. (2008). “AtmoCube” Proposal for the ESA Announce for Opportunity Vega CubeSat Selection, p. 1-18, Proposal for a Cubesat mission, Marzo 2008

FRAILIS M, GREGORIO A., ZACCHEI A (2008). Planck LFI DPC SOVT1 ProceduresL-LFI-OAT-PR-001, Procedure test, APRILE 2008

JERSE G, MESSEROTTI M, GREGORIO A., CHELA FLORES J (2008). A tentative estimate of Space Paleoclimate relevant to the Geospace in an astrobiological framework, Luglio 2008

MOLINARO M, GREGORIO A., MESSEROTTI M (2008). An ANN approach in predicting solar radio enhancements at 11 cm wavelength, Oral presentation at conference, Luglio 2008

STRINGHETTI L, GREGORIO A. (2008). TV Tests: Planck LFI Test Under Cryogenic Vacuum, p. 1-55, Procedure di test a terra, APRILE 2008

GREGORIO A. (2008). TV Tests: Planck LFI DAE memory dumpPL-LFI-PST-PR-026, p. 1-9, Procedure test memorie, GIUGNO 2008

GREGORIO A. (2008). TV Tests: Planck LFI Contingency procedure due to drain currents overlimit, p. 1-10, Procedure di emergenza, luglio 2008

GREGORIO A. (2008). Kapton Tape Removal and ReplacementPL-LFI-PST-PR-030, p. 1-12, Procedure di rimozione e sostituzione, APRILE 2008

STRINGHETTI L, GREGORIO A. (2009). Planck LFI Warm Functional Test Procedure (WFT)PL-LFI-PST-PR-017, p. 1-80, Procedure test a caldo, GENNAIO 2009

FRAILIS M, GREGORIO A., MENNELLA A.. CUTTAIA F, TOMMASI M (2008). Planck LFI DPC SOVT2 Test-ResultsPL-LFI-OAT-RP-018, p. 1-92, Risultati test SOVT2, OTTOBRE 2008

MENNELLA A, GREGORIO A., BERSANELLI M (2008). Planck-LFI TV-TB test report: executive summary, p. 1-51, Risultati test criogenici, NOVEMBRE 2008

GREGORIO A., BONVICINI W, BREGANT L, CARRATO S, FRAGIACOMO M, MESSEROTTI M, VACCHI A, BALDINI V, CAHARIJA W, CUTTIN A, DE DIN M, POPESSO M (2009). AtmoCube, a scientific and educational nanosatellite for the study of Space Weather effects. In: Second European CubeSat Workshop. NOORDWIJK - ESTEC, 20-22 Gennaio 2009, NOORDWIJK: European Space Agency - ESTEC, p. 1-22

BERSANELLI M, MANDOLESI N, BUTLER R.C, MENNELLA A, VILLA F, AJA B, ARTAL E, ARTINA E, BACCIGALUPI C, BALASINI M, BALDAN G, BANDAY A, BASTIA P, BATTAGLIA P, BERNARDINO T, BLACKHURST E, BOSCHINI L, BURIGANA C, CAFAGNA G, CAPPELLINI B, CAVALIERE F, COLOMBO F, CRONE G, CUTTAIA F, DARCANGELO O, DANESE L, DAVIES R.D, DAVIS R.J, DE ANGELIS L, DE GASPERIS G.C, DE LA FUENTE L, DE ROSA A, DE ZOTTI G, FALVELLA M.C, FERRARI F, FERRETTI R, FIGINI L, FOGLIANI S, FRANCESCHET C, FRANCESCHI E, GAIER T, GARAVAGLIA S, GOMEZ F, GORSKI K, GREGORIO A., GUZZI P, HERREROS J.M, HILDEBRANDT S.R, HOYLAND R, HUGHES N, JANSSEN M, JUKKALA P, KETTLE D, KILPIA V.H, LAANINEN M, LAPOLLA P.M, LAWRENCE C.R, LAWSON D, LEAHY J.P, LEONARDI R, LEUTENEGGER P, LEVIN S, LILJE P.B, LOWE S.R, LUBIN P.M, MAINO D, MALASPINA M, MARIS M, MARTI-CANALES J, MARTINEZ-GONZALEZ E, MEDIAVILLA A, MEINHOLD P, MICCOLIS M, MORGANTE G, NATOLI P, NESTI R, PAGAN L, PAINE C, PARTRIDGE B, PASCUAL J.P, PASIAN F, PEARSON D, PECORA M, PERROTTA F, PLATANIA P, POSPIESZALSKI M, POUTANEN T, PRINA M, REBOLO R, RODDIS N, RUBINO-MARTIN J.A, SALMON M.J, SANDRI M, SEIFFERT M, SILVESTRI R, SIMONETTO A, SJOMAN P, SMOOT G.F, SOZZI C, STRINGHETTI L, TADDEI E, TAUBER J, TERENZI L, TOMASI M, TUOVINEN J, VALENZIANO L, VARIS J, VITTORIO N, WADE L.A, WILKINSON A, WINDER F, ZACCHEI A, ZONCA A (2010). PLANCK pre-launch status: design and description of the Low Frequency Instrument. ASTRONOMY & ASTROPHYSICS, vol. Vol. 520, 2010; p. ---, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912853

MENNELLA A, BERSANELLI M, BUTLER R.C, CUTTAIA F, DARCANGELO O, DAVIS R.J, FRAILIS M, GALEOTTA S, GREGORIO A., LAWRENCE C.R, LEONARDI R, LOWE S.R, MANDOLESI N, MARIS M, MEINHOLD P, MENDES L, MORGANTE G, SANDRI M, STRINGHETTI L, TERENZI L, TOMASI M, VALENZIANO L, VILLA F, ZACCHEI A, ZONCA A, BALASINI M, FRANCESCHET C, BATTAGLIA P, LAPOLLA P.M, LEUTENEGGER P, MICCOLIS M, PAGAN L, SILVESTRI R, AJA B, ARTAL E, BALDAN G, BASTIA P, BERNARDINO T, BOSCHINI L, CAFAGNA G, CAPPELLINI B, CAVALIERE F, COLOMBO F, DE LA FUENTE L, EDGELEY J, FALVELLA M.C, FERRARI F, FOGLIANI S, FRANCESCHI E, GAIER T, GOMEZ F, HERREROS J.M, HILDEBRANDT S, HOYLAND R, HUGHES N, JUKKALA P, KETTLE D, LAANINEN M, LAWSON D, LEAHY P, LEVIN S, LILJE P.B, MAINO D, MALASPINA M, MANZATO P, MARTI-CANALES J, MARTINEZ-GONZALEZ E, MEDIAVILLA A, PASIAN F, PASCUAL J.P, PECORA M, PERES-CUEVAS L, PLATANIA P, POSPIESZALSKY M, POUTANEN T, REBOLO R, RODDIS N, SALMON M, SEIFFERT M, SIMONETTO A, SOZZI C, TAUBER J, TUOVINEN J, VARIS J, WILKINSON A, WINDER F (2010). PLANCK pre-launch status: Low Frequency Instrument calibration and scientific performance. ASTRONOMY & ASTROPHYSICS, vol. Vol. 520, 2010; p. ---, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912849

MANDOLESI N, BERSANELLI M, BUTLER R.C, ARTAL E, BACCIGALUPI C, BALBI A, BANDAY A.J, BARREIRO R.B, BARTELMANN M, BENNETT K, BHANDARI P, BONALDI A, BORRILL J, BREMER M, BURIGANA C, BOWMAN R.C, CABELLA P, CANTALUPO C, CAPPELLINI B, COURVOISIER T, CRONE G, CUTTAIA F, DANESE L, DARCANGELO O, DAVIES R.D, DAVIS R.J, DE ANGELIS L, DE GASPERIS G, DE ROSA A, DE TROIA G, DE ZOTTI G, DICK J, DICKINSON C, DIEGO J.M, DONZELLI S, DORL U, DUPAC X, ENLIN T.A, ERIKSEN H.K, FALVELLA M.C, FINELLI F, FRAILIS M, FRANCESCHI E, GAIER T, GALEOTTA S, GASPARO F, GIARDINO G, GOMEZ F, GONZALEZ-NUEVO J, GORSKI K.M, GREGORIO A., GRUPPUSO A, HANSEN F, HELL R, HERRANZ D, HERREROS J.M, HILDEBRANDT S, HOVEST W, HOYLAND R, HUFFENBERGER K, JANSSEN M, JAFFE T, KEIHANEN E, KESKITALO R, KISNER T, KURKI-SUONIO H, LAHTEENMAKI A, LAWRENCE C.R, M. S, J. LEACH, LEAHY P, LEONARDI R, LEVIN S, LILJE P.B, LOPEZ-CANIEGO M, LOWE S.R, LUBIN P.M, MAINO D, MALASPINA M, MARIS M, MARTI-CANALES J, MARTINEZ-GONZALEZ E, MASSARDI M, MATARRESE S, MATTHAI F, MEINHOLD P, MELCHIORRI A, MENDES L, MENNELLA A, MORGANTE G, MORIGI G, MORISSET N, MOSS A, NASH A, NATOLI P, NESTI R, PAINE C, PARTRIDGE B, PASIAN F, PASSVOGEL T, PEARSON D, PEREZ-CUEVAS L, PERROTTA F, POLENTA G, POPA L.A, POUTANEN T, PREZEAU G, PRINA M, RACHEN J.P, REBOLO R, REINECKE M, RICCIARDI S, RILLER T, ROCHA G, RODDIS N, ROHLFS R, RUBINO-MARTIN J.A, SALERNO E, SANDRI M, SCOTT D, SEIFFERT M, SILK J, SIMONETTO A, SMOOT G.F, SOZZI C, STERNBERG J, STIVOLI F, STRINGHETTI L, TAUBER J, TERENZI L, TOMASI M, TUOVINEN J, TURLER M, VALENZIANO L, VARIS J, VIELVA P, VILLA F, VITTORIO N, WADE L, WHITE M, WHITE S, WILKINSON A, ZACCHEI A, ZONCA A (2010). PLANCK pre-launch status: The PLANCK-LFI program. ASTRONOMY & ASTROPHYSICS, vol. Vol. 520, 2010; p. ---, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912837

SANDRI M, VILLA F, BERSANELLI M, BURIGANA C, BUTLER R.C, DARCANGELO O, FIGINI L, GREGORIO A., LAWRENCE C.R, MAINO D, MANDOLESI N, MARIS M, NESTI R, PERROTTA F, PLATANIA P, SIMONETTO A, SOZZI C, TAUBER J, VALENZIANO L. (2010). PLANCK pre-launch status: Low Frequency Instrument Optics. ASTRONOMY & ASTROPHYSICS, vol. Vol. 520, 2010; p. ---, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912891

TAUBER J.A, MANDOLESI N, PUGET J.-L, BANOS T, BERSANELLI M, BOUCHET F.R, BUTLER C.R, CHARRA J, CRONE G, DODSWORTH J, EFSTATHIOU G, GISPERT R, GUYOT G, GREGORIO A., JUILLET J.J, LAMARRE J.-M, LAUREIJS R.J, LAWRENCE C.R, NØRGAARD-NIELSEN H.U, PASSVOGEL T, REIX J.M, TEXIER D, VIBERT L, ZACCHEI A, ADE P.A.R, AGHANIM N, AJA B, ALIPPI E, ALOY L, ARMAND P, ARNAUD M, ARONDEL A, ARREOLA-VILLANUEVA A, ARTAL E, ARTINA E, ARTS A, ASHDOWN M, AUMONT J, AZZARO M, BACCHETTA A, BACCIGALUPI C, BAKER M, BALASINI M, BALBI A, BANDAY A.J, BARBIER G, BARREIRO R.B, BARTELMANN M, BATTAGLIA P, BATTANER E, BENABED K, BENEY J.-L, BENEYTON R, BENNETT K, BENOIT A, BERNARD J.-P, BHANDARI P, BHATIA R, BIGGI M, BIGGINS R, BILLIG G, BLANC Y, BLAVOT H, BOCK J.J, BONALDI A, BOND R, BONIS J, BORDERS J, BORRILL J, BOSCHINI L, BOULANGER F, BOUVIER J, BOUZIT M, BOWMAN R, BRELLE E, BRADSHAW T, BRAGHIN M, BREMER M, BRIENZA D, BROSZKIEWICZ D, BURIGANA C, BURKHALTER M, CABELLA P, CAFFERTY T, CAIROLA M, CAMINADE S, CAMUS P, CANTALUPO C.M, CAPPELLINI B, CARDOSO J.-F, CARR R, CATALANO A, CAYON L, CESA M, CHAIGNEAU M, CHALLINOR A, CHAMBALLU A, CHAMBELLAND J.P, CHARRA M, CHIANG L.-Y, CHLEWICKI G, CHRISTENSEN P.R, CHURCH S, CIANCIETTA E, CIBRARIO M, CIZERON R, CLEMENTS D, COLLAUDIN B, COLLEY J.-M, COLOMBI S, COLOMBO A, COLOMBO F, CORRE O, COUCHOT F, COUGRAND B, COULAIS A, COUZIN P, CRANE B, CRILL B, CROOK M, CRUMB D, CUTTAIA F, DORL U, DA SILVA P, DADDATO R, DAMASIO C, DANESE L, DAQUINO G, DARCANGELO O, DASSAS K, DAVIES R.D, DAVIES W, DAVIS R.J, DE BERNARDIS P, DE CHAMBURE D, DE GASPERIS G, DE LA FUENTA M.L, DE PACO P, DE ROSA A, DE TROIA G, DE ZOTTI G, DEHAMME M, DELABROUILLE J, DELOUIS J.-M, DESERT F.-X, DI GIROLAMO G, DICKINSON C, DOELLING E, DOLAG K, DOMKEN I, DOUSPIS M, DOYLE D, DU S, DUBRUEL D, DUFOUR C, DUMESNIL C, DUPAC X, DURET P, EDER C, ELFVING A, ENLIN T.A, ENG P, ENGLISH K, ERIKSEN H.K, ESTARIA P, FALVELLA M.C, FERRARI F, FINELLI F, FISHMAN A, FOGLIANI S, FOLEY S, FONSECA A, FORMA G, FORNI O, FOSALBA P, ... (2010). PLANCK pre-launch status: the PLANCK Mission. ASTRONOMY & ASTROPHYSICS, vol. Vol. 520, 2010; p. ---, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912983

M FRAILIS, M MARIS, A ZACCHEI, N MORISSET, R ROHLFS, M MEHARGA, P BINKO, M TÜRLER, S GALEOTTA, F GASPARO, E FRANCESCHI, R C BUTLER, O D'ARCANGELO, S FOGLIANI, GREGORIO A., S R LOWE, G MAGGIO, M MALASPINA, N MANDOLESI, P MANZATO, F PASIAN, F PERROTTA, M SANDRI, L TERENZI, M TOMASI AND A ZONCA (2009). A systematic approach to the Planck LFI end-to-end test and its application to the DPC Level 1 pipeline. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12021-T12021, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12021

M TOMASI, A MENNELLA, S GALEOTTA, S R LOWE, L MENDES, R LEONARDI, F VILLA, B CAPPELLINI, GREGORIO A., P MEINHOLD, M SANDRI, F CUTTAIA, L TERENZI, M MARIS, L VALENZIANO, M J SALMON, M BERSANELLI, P BINKO, R C BUTLER, O D'ARCANGELO, S FOGLIANI, M FRAILIS, E FRANCESCHI, F GASPARO, G MAGGIO, D MAINO, M MALASPINA, N MANDOLESI, P MANZATO, M MEHARGA, G MORGANTE, N MORISSET, F PASIAN, F PERROTTA, R ROHLFS, M TÜRLER, A ZACCHEI AND A ZONCA (2009). Off-line radiometric analysis of Planck-LFI data. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12020-T12020, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12020

A ZACCHEI, M FRAILIS, M MARIS, N MORISSET, R ROHLFS, M MEHARGA, P BINKO, M TÜRLER, S GALEOTTA, F GASPARO, E FRANCESCHI, R C BUTLER, F CUTTAIA, O D'ARCANGELO, S FOGLIANI, GREGORIO A., R LEONARDI, S R LOWE, D MAINO, G MAGGIO, M MALASPINA, N MANDOLESI, P MANZATO, P MEINHOLD, L MENDES, A MENNELLA, G MORGANTE, F PASIAN, F PERROTTA, M SANDRI, L STRINGHETTI, L TERENZI, M TOMASI AND A ZONCA (2009). Level 1 on-ground telemetry handling in Planck-LFI. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12020-T12020, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12019

M MARIS, M TOMASI, S GALEOTTA, M MICCOLIS, S HILDEBRANDT, M FRAILIS, R ROHLFS, N MORISSET, A ZACCHEI, M BERSANELLI, P BINKO, C BURIGANA, R C BUTLER, F CUTTAIA, H CHULANI, O D'ARCANGELO, S FOGLIANI, E FRANCESCHI, F GASPARO, F GOMEZ, GREGORIO A., J M HERREROS, R LEONARDI, P LEUTENEGGER, G MAGGIO, D MAINO, M MALASPINA, N MANDOLESI, P MANZATO, M MEHARGA, P MEINHOLD, A MENNELLA, F PASIAN, F PERROTTA, R REBOLO, M TÜRLER AND A ZONCA (2009). Optimization of Planck-LFI on-board data handling. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12018-T12018, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12018

M MALASPINA, E FRANCESCHI, P BATTAGLIA, P BINKO, R C BUTLER, O D'ARCANGELO, S FOGLIANI, M FRAILIS, C FRANCESCHET, S GALEOTTA, F GASPARO, GREGORIO A., M LAPOLLA, R LEONARDI, G MAGGIO, N MANDOLESI, P MANZATO, M MARIS, M MEHARGA, P MEINHOLD, N MORISSET, F PASIAN, F PERROTTA, R ROHLFS, M SANDRI, M TOMASI, M TÜRLER, A ZACCHEI AND A ZONCA (2009). LFI Radiometric Chain Assembly (RCA) data handling ``Rachel''. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12017-T12017, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12017

G MORGANTE, D PEARSON, F MELOT, P STASSI, L TERENZI, P WILSON, B HERNANDEZ, L WADE, GREGORIO A., M BERSANELLI, C BUTLER AND N MANDOLESI (2009). Cryogenic characterization of the Planck sorption cooler system flight model. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12016-T12016, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12016

F CUTTAIA, A MENNELLA, L STRINGHETTI, M MARIS, L TERENZI, M TOMASI, F VILLA, M BERSANELLI, R C BUTLER, B CAPPELLINI, L P CUEVAS, O D'ARCANGELO, R DAVIS, M FRAILIS, C FRANCESCHET, E FRANCESCHI, GREGORIO A., R HOYLAND, R LEONARDI, S LOWE, N MANDOLESI, P MEINHOLD, L MENDES, N RODDIS, M SANDRI, L VALENZIANO, A WILKINSON, A ZACCHEI, A ZONCA, P BATTAGLIA, S DE NARDO, S GRASSI, M LAPOLLA, P LEUTENEGGER, M MICCOLIS AND R SILVESTRI (2009). Planck-LFI radiometers tuning. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12013-T12013, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12013

L TERENZI, M J SALMON, A COLIN, A MENNELLA, G MORGANTE, M TOMASI, P BATTAGLIA, M LAPOLLA, M BERSANELLI, R C BUTLER, F CUTTAIA, O D'ARCANGELO, R DAVIS, C FRANCESCHET, S GALEOTTA, GREGORIO A., N HUGHES, P JUKKALA, D KETTLE, M LAANINEN, P LEUTENEGGER, R LEONARDI, N MANDOLESI, M MARIS, P MEINHOLD, M MICCOLIS, N RODDIS, L SAMBO, M SANDRI, R SILVESTRI, J TUOVINEN, L VALENZIANO, J VARIS, F VILLA, A WILKINSON AND A ZONCA (2009). THERMAL SUSCEPTIBILITY OF THE PLANCK-LFI RECEIVERS. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12012-T12012, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12012

A MENNELLA, F VILLA, L TERENZI, F CUTTAIA, P BATTAGLIA, M BERSANELLI, R C BUTLER, O D'ARCANGELO, E ARTAL, R DAVIS, M FRAILIS, C FRANCESCHET, S GALEOTTA, GREGORIO A., N HUGHES, P JUKKALA, D KETTLE, V-H KILPIÄ, M LAANINEN, P M LAPOLLA, R LEONARDI, P LEUTENEGGER, S LOWE, N MANDOLESI, M MARIS, P MEINHOLD, L MENDES, M MICCOLIS, G MORGANTE, N RODDIS, M SANDRI, R SILVESTRI, L STRINGHETTI, M TOMASI, J TUOVINEN, L VALENZIANO, A ZACCHEI, J VARIS, A WILKINSON AND A ZONCA (2009). The linearity response of the Planck-LFI flight model receivers. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12011-T12011, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12011

P MEINHOLD, R LEONARDI, B AJA, E ARTAL, P BATTAGLIA, M BERSANELLI, E BLACKHURST, C R BUTLER, L P CUEVAS, F CUTTAIA, O D'ARCANGELO, R DAVIS, M L DE LA FUENTE, M FRAILIS, C FRANCESCHET, E FRANCESCHI, T GAIER, S GALEOTTA, GREGORIO A., R HOYLAND, N HUGHES, P JUKKALA, D KETTLE, M LAANINEN, P LEUTENEGGER, S R LOWE, M MALASPINA, R MANDOLESI, M MARIS, E MARTÍNEZ-GONZÁLEZ, L MENDES, A MENNELLA, M MICCOLIS, G MORGANTE, N RODDIS, M SANDRI, M SEIFFERT, M SALMÓN, L STRINGHETTI, T POUTANEN, L TERENZI, M TOMASI, J TUOVINEN, J VARIS, L VALENZIANO, F VILLA, A WILKINSON, F WINDER, A ZACCHEI AND A ZONCA (2009). NOISE PROPERTIES OF THE PLANCK-LFI RECEIVERS. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12009-T12009, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12009

L VALENZIANO, F CUTTAIA, A DE ROSA, L TERENZI, A BRIGHENTI, G P CAZZOLA, A GARBESI, S MARIOTTI, G ORSI, L PAGAN, F CAVALIERE, M BIGGI, R LAPINI, E PANAGIN, P BATTAGLIA, R C BUTLER, M BERSANELLI, O D'ARCANGELO, S LEVIN, N MANDOLESI, A MENNELLA, G MORGANTE, G MORIGI, M SANDRI, A SIMONETTO, M TOMASI, F VILLA, M FRAILIS, S GALEOTTA, GREGORIO A., R LEONARDI, S R LOWE, M MARIS, P MEINHOLD, L MENDES, L STRINGHETTI, A ZONCA AND A ZACCHEI (2009). PLANCK-LFI: DESIGN AND PERFORMANCE OF THE 4 KELVIN REFERENCE LOAD UNIT. JOURNAL OF INSTRUMENTATION, vol. 4, 2009; p. T12006-T12006, ISSN: 1748-0221, doi: 10.1088/1748-0221/4/12/T12006

J.P. CHAMBELLAND, P. ARMAND, E. GAVILA, M.P. ESTIENNE, T. BANOS, J. TAUBER, B. GUILLAUME, C. DAMASIO, G. GUYOT, M. CHARRA, P. CAMUS, J.J. FOURMOND, T. MACIASZEK, T. BRADSHAW, D. PEARSON, C. BUTLER, G.L. MORGANTE, GREGORIO A., M. BERSANELLI, D. MENNELLA (2009). PLANCK: Testing of Cryogenics Instruments at Satellite Level and Early Flight Results. In: Session #: C3-O Session Title: Special Session: Herschel and Planck Missions. Tuscon, Arizona, US, 28/6 - 2/7, NASA/GSFC: Susan Breon

MENNELLA, A., BERSANELLI, M., BUTLER, R. C., CURTO, A., CUTTAIA, F., DAVIS, R. J., DICK, J., FRAILIS, M., GALEOTTA, S., GREGORIO A., A., KURKI-SUONIO, H., LAWRENCE, C. R., LEACH, S., LEAHY, J. P., LOWE, S., MAINO, D., MANDOLESI, N., MARIS, M., MART'INEZ-GONZÁLEZ, E., MEINHOLD, P. R., MORGANTE, G., PEARSON, D., PERROTTA, F., POLENTA, G., POUTANEN, T., SANDRI, M., SEIFFERT, M. D., SUUR-USKI, A. -S., TAVAGNACCO, D., TERENZI, L., TOMASI, M., VALIVIITA, J., VILLA, F., WATSON, R., WILKINSON, A., ZACCHEI, A., ZONCA, A., AJA, B., ARTAL, E., BACCIGALUPI, C., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BARTOLO, N., BATTAGLIA, P., BENNETT, K., BONALDI, A., BONAVERA, L., BORRILL, J., BOUCHET, F. R., BURIGANA, C., CABELLA, P., CAPPELLINI, B., CHEN, X., COLOMBO, L., CRUZ, M., DANESE, L., D'ARCANGELO, O., DAVIES, R. D., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DICKINSON, C., DIEGO, J. M., DONZELLI, S., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FALVELLA, M. C., FINELLI, F., FOLEY, S., FRANCESCHET, C., FRANCESCHI, E., GAIER, T. C., GÉNOVA-SANTOS, R. T., GEORGE, D., GÓMEZ, F., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRUPPUSO, A., HANSEN, F. K., HERRANZ, D., HERREROS, J. M., HOYLAND, R. J., HUGHES, N., JEWELL, J., JUKKALA, P., JUVELA, M., KANGASLAHTI, P., KEIHÄNEN, E., KESKITALO, R., KILPIA, V. -H., KISNER, T. S., KNOCHE, J., KNOX, L., LAANINEN, M., LÄHTEENMÄKI, A., LAMARRE, J. -M., LEONARDI, R., LEÓN-TAVARES, J., LEUTENEGGER, P., LILJE, P. B., LÓPEZ-CANIEGO, M., LUBIN, P. M., MALASPINA, M., MARINUCCI, D., MASSARDI, M., MATARRESE, S., MATTHAI, F., MELCHIORRI, A., MENDES, L., MICCOLIS, M., MIGLIACCIO, M., MITRA, S., MOSS, A., NATOLI, P., NESTI, R., NORGAARD-NIELSEN, H. U., PAGANO, L., PALADINI, R., PAOLETTI, D., PARTRIDGE, B., PASIAN, F., PETTORINO, V., PIETROBON, D., POSPIESZALSKI, M., PRÉZEAU, G., PRINA, M., PROCOPIO, P., PUGET, J. -L., QUERCELLINI, C., RACHEN, J. P., REBOLO, R., REINECKE, M., RICCIARDI, S., ROBBERS, G., ROCHA, G., RODDIS, N., RUBINO-MARTÍN, J. A., SAVELAINEN, M., SCOTT, D., SILVESTRI, R., SIMONETTO, A., SJOMAN, P., SMOOT, G. F., SOZZI, C., STRINGHETTI, L., TAUBER, J. A., TOFANI, G., TUOVINEN, J., TÜRLER, M., UMANA, G., VALENZIANO, L., VARIS, J., VIELVA, P., VITTORIO, N., WADE, L. A., WATSON, C., WHITE, S., WINDER, F. (in stampa). Planck early results: First assessment of the Low Frequency Instrument in-flight performance. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ZACCHEI, A., MAINO, D., BACCIGALUPI, C., BERSANELLI, M., BONALDI, A., BONAVERA, L., BURIGANA, C., BUTLER, R. C., CUTTAIA, F., DE ZOTTI, G., DICK, J., FRAILIS, M., GALEOTTA, S., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GREGORIO A., A., KEIHÄNEN, E., KESKITALO, R., KNOCHE, J., KURKI-SUONIO, H., LAWRENCE, C. R., LEACH, S., LEAHY, J. P., LÓPEZ-CANIEGO, M., MANDOLESI, N., MARIS, M., MATTHAI, F., MEINHOLD, P. R., MENNELLA, A., MORGANTE, G., MORISSET, N., NATOLI, P., PASIAN, F., PERROTTA, F., POLENTA, G., POUTANEN, T., REINECKE, M., RICCIARDI, S., ROHLFS, R., SANDRI, M., SUUR-USKI, A. -S., TAUBER, J. A., TAVAGNACCO, D., TERENZI, L., TOMASI, M., VALIVIITA, J., VILLA, F., ZONCA, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BARTOLO, N., BEDINI, L., BENNETT, K., BINKO, P., BORRILL, J., BOUCHET, F. R., BREMER, M., CABELLA, P., CAPPELLINI, B., CHEN, X., COLOMBO, L., CRUZ, M., CURTO, A., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE GASPERIS, G., DE ROSA, A., DE TROIA, G., DICKINSON, C., DIEGO, J. M., DONZELLI, S., DÖRL, U., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FALVELLA, M. C., FINELLI, F., FRANCESCHI, E., GAIER, T. C., GASPARO, F., GÉNOVA-SANTOS, R. T., GIARDINO, G., GÓMEZ, F., GRUPPUSO, A., HANSEN, F. K., HELL, R., HERRANZ, D., HOVEST, W., JEWELL, J., JUVELA, M., KISNER, T. S., KNOX, L., LÄHTEENMÄKI, A., LAMARRE, J. -M., LEONARDI, R., LEÓN-TAVARES, J., LILJE, P. B., LUBIN, P. M., MAGGIO, G., MARINUCCI, D., MARTÍNEZ-GONZÁLEZ, E., MASSARDI, M., MATARRESE, S., MEHARGA, M. T., MELCHIORRI, A., MIGLIACCIO, M., MITRA, S., MOSS, A., NORGAARD-NIELSEN, H. U., PAGANO, L., PALADINI, R., PAOLETTI, D., PARTRIDGE, B., PEARSON, D., PETTORINO, V., PIETROBON, D., PRÉZEAU, G., PROCOPIO, P., PUGET, J. -L., QUERCELLINI, C., RACHEN, J. P., REBOLO, R., ROBBERS, G., ROCHA, G., RUBINO-MARTÍN, J. A., SALERNO, E., SAVELAINEN, M., SCOTT, D., SEIFFERT, M. D., SILK, J. I., SMOOT, G. F., STERNBERG, J., STIVOLI, F., STOMPOR, R., TOFANI, G., TUOVINEN, J., TÜRLER, M., UMANA, G., VIELVA, P., VITTORIO, N., VUERLI, C., WADE, L. A., WATSON, R., WHITE, S. D. M., WILKINSON, A. (in stampa). Planck Early Results: The Low Frequency Instrument data processing. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

AATROKOSKI, J., ADE, P. A. R., AGHANIM, N., ALLER, H. D., ALLER, M. F., ANGELAKIS, E., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERDYUGIN, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BONALDI, A., BONAVERA, L., BOND, J. R., BORRILL, J., BOUCHET, F. R., BUCHER, M., BURIGANA, C., BURROWS, D. N., CABELLA, P., CAPALBI, M., CAPPELLINI, B., CARDOSO, J. -F., CATALANO, A., CAVAZZUTI, E., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHIANG, L. -Y, CHRISTENSEN, P. R., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CUTINI, S., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DICKINSON, C., DOLE, H., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENßLIN, T. A., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., FUHRMANN, L., GALEOTTA, S., GANGA, K., GARGANO, F., GASPARRINI, D., GEHRELS, N., GIARD, M., GIARDINO, G., GIGLIETTO, N., GIOMMI, P., GIORDANO, F., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KING, O., KISNER, T. S., KNEISSL, R., KNOX, L., KRICHBAUM, T. P., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAVONEN, N., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEÓN-TAVARES, J., LINDEN-VORNLE, M., LINDFORS, E., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MASSARDI, M., MATARRESE, S., MATTHAI, F., MAX-MOERBECK, W., MAZZIOTTA, M. N., MAZZOTTA, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MICHELSON, P. F., MINGALIEV, M., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTE, C., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NESTORAS, I., NETTERFIELD, C. B., NIEPPOLA, E., NILSSON, K., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J... (in stampa). Planck early results: Spectral energy distributions and radio continuum spectra of northern extragalactic radio sources. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTELMANN, M., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOURDIN, H., BROWN, M. L., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHON, G., CHRISTENSEN, P. R., CHURAZOV, E., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DA SILVA, A., DAHLE, H., DANESE, L., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DIEGO, J. M., DOLAG, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FLORES, I., FORNI, O., FRAILIS, M., FRANCESCHI, E., FROMENTEAU, S., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LANOUX, J., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LIDDLE, A., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N.,

MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PIFFARETTI, R., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUT... (in stampa). Planck Early Results: Calibration of the local galaxy cluster Sunyaev-Zeldovich scaling relations. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CAPPELLINI, B., CARDOSO, J. -F., CASASSUS, S., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHEN, X., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DICKINSON, C., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, T. R., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARSHALL, D. J., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PALADINI, R., PARTRIDGE, B., PASIAN, F., PATANCHON, G., PEARSON, T. J., PEEL, M., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., PLATANIA, P., POINTECOUTEAU, E., P... (in stampa). Planck Early Results: New Light on Anomalous Microwave Emission from Spinning Dust Grains. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARGÜESO, F., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BONALDI, A., BONAVERA, L., BOND, J. R., BORRILL, J., BOUCHET, F. R., BUCHER, M., BURIGANA, C., CABELLA, P., CAPPELLINI, B., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHEN, X., CHIANG, L. -Y, CHRISTENSEN, P. R., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOERL, U., DOLE, H., DONZELLI, S., DORÉ, O., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEAHY, J. P., LEONARDI, R., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MAFFEI, B., MAGLIOCCHETTI, M., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MASSARDI, M., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PALADINI, R., PARTRIDGE, B., PASIAN, F., PATANCHON, G., PEARSON, T. J., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PLASZCZYNSKI, S., PLATANIA, P., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., RACHEN, J.... (in stampa). Planck Early Results: Statistical properties of extragalactic radio sources in the Planck Early Release Compact Source Catalogue. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTELMANN, M., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BROWN, M. L., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. R., Y CHIANG, L., CHIANG, C., CHON, G., CHRISTENSEN, P. R., CHURAZOV, E., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DA SILVA, A., DAHLE, H., DANESE, L., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DIEGO, J. M., DOLAG, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FLORES, I., FORNI, O., FRAILIS, M., FRANCESCHI, E., FROMENTEAU, S., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. -F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PIFFARETTI, R., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRATT, G. W., PRÉZEAU, G., PRUNET, S., PUG... (in stampa). Planck early results: XMM-Newton follow-up for validation of Planck cluster candidates. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ABERGEL, A., A. R. ADE, P., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., J. BANDAY, A., B. BARREIRO, R., G. BARTLETT, J., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., J. BOCK, J., BONALDI, A., R. BOND, J., BORRILL, J., R. BOUCHET, F., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., R. CHRISTENSEN, P., L. CLEMENTS, D., COLOMBI, S., COUCHOT, F., COULAIS, A., P. CRILL, B., CUTTAIA, F., DANESE, L., D. DAVIES, R., J. DAVIS, R., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOBASHI, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., A. ENßLIN, T., K. ERIKSEN, H., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., M. GÓRSKI, K., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., GUILLET, V., K. HANSEN, F., HARRISON, D., HENROT-VERSILLÉ, S., HERRANZ, D., R. HILDEBRANDT, S., HIVON, E., HOBSON, M., A. HOLMES, W., HOVEST, W., J. HOYLAND, R., M. HUFFENBERGER, K., H. JAFFE, A., JONES, A., C. JONES, W., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., S. KISNER, T., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., J. LAUREIJS, R., R. LAWRENCE, C., LEACH, S., LEONARDI, R., LEROY, C., LINDEN-VØRNLE, M., LÓPEZ-CANIEGO, M., M. LUBIN, P., F. MACÍAS-PÉREZ, J., J. MACTAVISH, C., MAFFEI, B., MANDOLESI, N., MANN, R., MARIS, M., J. MARSHALL, D., MARTIN, P., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., R. MEINHOLD, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., B. NETTERFIELD, C., U. NØRGAARD-NIELSEN, H., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PALADINI, R., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., T. REACH, W., REBOLO, R., REINECKE, M., RENAULT, C... (in stampa). Planck Early Results: Thermal dust in Nearby Molecular Clouds. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DAME, T., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOBASHI, K., DOERL, U., DONZELLI, S., DORÉ, O., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FOSALBA, P., FRAILIS, M., FRANCESCHI, E., FUKUI, Y., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRENIER, I. A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KAWAMURA, A., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTIN, P., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., ONISHI, T., OSBORNE, S., PAJOT, F., PALADINI, R., PARADIS, D., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU,

G., ... (in stampa). Planck Early Results: All sky temperature and dust optical depth from Planck and IRAS: Constraints on the "dark gas" in our galaxy. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BAKER, M., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENNETT, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BRADSHAW, T., BREMER, M., BUCHER, M., BURIGANA, C., BUTLER, R. C., CABELLA, P., CANTALUPO, C. M., CAPPELLINI, B., CARDOSO, J. -F., CARR, R., CASALE, M., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARRA, J., CHARY, R. -R., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CRONE, G., CROOK, M., CUTTAIA, F., DANESE, L., D'ARCANGELO, O., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE BRUIN, J., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICK, J., DICKINSON, C., DOLAG, K., DOLE, H., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENßLIN, T. A., ERIKSEN, H. K., FINELLI, F., FOLEY, S., FORNI, O., FOSALBA, P., FRAILIS, M., FRANCESCHI, E., FRESCHI, M., GAIER, T. C., GALEOTTA, S., GALLEGOS, J., GANDOLFO, B., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ, J., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., GUYOT, G., HAISSINSKI, J., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HORNSTRUP, A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JAGEMANN, T., JONES, W. C., JUILLET, J. J., JUVELA, M., KANGASLAHTI, P., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KRASSENBURG, M., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LANGE, A. E., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEAHY, J. P., LEONARDI, R., LEROY, C., LILJE, P. B., LINDEN-VØRNLE, M., LÓPEZ-CANIEGO, M., LOWE, S., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACIASZEK, T., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MASSARDI, M., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCDONALD, A., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MEVI, C., MINISCAL... (in stampa). Planck Early Results: The Planck mission. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTELMANN, M., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BROWN, M. L., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHIANG, L. -Y, CHIANG, C., CHON, G., CHRISTENSEN, P. R., CHURAZOV, E., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DA SILVA, A., DAHLE, H., DANESE, L., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DIEGO, J. M., DOLAG, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FLORES, I., FORNI, O., FRAILIS, M., FRANCESCHI, E., FROMENTEAU, S., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PIFFARETTI, R., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRATT, G. W., PRÉZEAU, G., PRUNET, S., PU... (in stampa). Planck early results: Statistical analysis of Sunyaev-Zeldovich scaling relations for X-ray galaxy clusters. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOIT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BLAGRAVE, K., BOCK, J. J., BONALDI, A., BONAVERA, L., BOND, J. R., BORRILL, J., BOUCHET, F. R., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYON, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DESERT, F. -X., DOLE, H., DONZELLI, S., DORE, O., DORL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FOSALBA, P., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HERAUD, Y., GONZALEZ-NUEVO, J., GORSKI, K. M., GRAIN, J., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLE, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHANEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LILJE, P. B., LINDEN-VORNLE, M., LOCKMAN, F. J., LOPEZ-CANIEGO, M., LUBIN, P. M., MACIAS-PEREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTIN, P., MARTINEZ-GONZALEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHENES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OLIVER, S., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PINHEIRO GONCALVES, D., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PREZEAU, G., PRUNET, S., PUGET, J. -L., RACHEN, J. P., REACH, W. T., REINECKE... (in stampa). Planck Early Results: The Power Spectrum Of Cosmic Infrared Background Anisotropies. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ABERGEL, A., ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOIT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BLAGRAVE, K., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CANTALUPO, C. M., CARDOSO, J. -F., CATALANO, A., CAYON, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DESERT, F. -X., DICKINSON, C., DONZELLI, S., DORE, O., DORL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HERAUD, Y., GONZALEZ-NUEVO, J., GORSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLE, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONCAS, G., JONES, A., JONES, W. C., JUVELA, M., KEIHANEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LINDEN-VORNLE, M., LOCKMAN, F. J., LOPEZ-CANIEGO, M., LUBIN, P. M., MACIAS-PEREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARSHALL, D. J., MARTIN, P., MARTINEZ-GONZALEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHENES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATI, F., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PALADINI, R., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PINHEIRO GONCALVES, D., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTA... (in stampa). Planck Early Results: Dust in the diffuse interstellar medium and the Galactic halo. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOT, C., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOBASHI, K., DOERL, U., DONZELLI, S., DORÉ, O., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., FUKUI, Y., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KAWAMURA, A., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MADDEN, S., MAFFEI, B., MANDOLESI, N., MANN, R., MARIS, M., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATI, F., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., ONISHI, T., OSBORNE, S., PAJOT, F., PALADINI, R., PARADIS, D., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., REACH, W. T., REBOLO, R., REINECKE, M., RENAULT, C., RICCIARD... (in stampa). Planck Early Results: Origin of the submm excess dust emission in the Magellanic Clouds. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BUCHER, M., BURIGANA,

C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHIANG, L. -Y, CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOLE, H., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MADDEN, S., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PARTRIDGE, B., PASIAN, F., PATANCHON, G., PEEL, M., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., REACH, W. T., REBOLO, R., REINECKE, M., RENAULT, C., RICCIARDI, S., RILLER, T., RISTORCELLI, I., ROCHA, G., ROSSET, C., ROWAN-ROBINSON, ... (in stampa). Planck Early Results: The Planck View of Nearby Galaxies. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BAKER, M., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BATTANER, E., BENABED, K., BENOIT, A., BERNARD, J. P., BERSANELLI, M., BHANDARI, P., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORDERS, J., BORRILL, J., BOUCHET, F. R., BOWMAN, B., BRADSHAW, T., BREELLE, E., BUCHER, M., BURIGANA, C., BUTLER, R. C., CABELLA, P., CAMUS, P., CANTALUPO, C. M., CAPPELLINI, B., CARDOSO, J. F., CATALANO, A., CAYON, L., CHALLINOR, A., CHAMBALLU, A., CHAMBELLAND, J. P., CHARRA, J., CHARRA, M., Y CHIANG, L., CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLLAUDIN, B., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CROOK, M., CUTTAIA, F., DAMASIO, C., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DELABROUILLE, J., DELOUIS, J. M., DESERT, F. -X., DOERL, U., DOLAG, K., DONZELLI, S., DORE, O., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FOLEY, S., FORNI, O., FOSALBA, P., FOURMOND, J. J., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GAVILA, E., GIARD, M., GIARDINO, G., GIRAUD-HERAUD, Y., GONZALEZ-NUEVO, J., GORSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., GUYOT, G., HARRISON, D., HELOU, G., HENROT-VERSILLE, S., HERNANDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HORNSTRUP, A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., ISRAELSSON, U., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHANEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. M., LAMI, P., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LILJE, P. B., LOPEZ-CANIEGO, M., LUBIN, P. M., MACIAS-PEREZ, J. F., MACIASZEK, T., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARTINEZ-GONZALEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MELOT, F., MENDES, L., MENNELLA, A., MIVILLE-DESCHENES, M. -A., MONETI, A., MONTIER, L., MORA, J., MORGANTE, G., MORISSET, N., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NASH, A., NATOLI, P., NETTERFIELD, C. B., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PEARSON, D... (in stampa). Planck Early Results: The thermal performance of Planck. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTELMANN, M., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BROWN, M. L., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHON, G., CHRISTENSEN, P. R., CHURAZOV, E., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DA SILVA, A., DAHLE, H., DANESE, L., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DIEGO, J. M., DOLAG, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FLORES, I., FORNI, O., FRAILIS, M., FRANCESCHI, E., FROMENTEAU, S., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MEI, S., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PIFFARETTI, R., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRATT, G. W., PRÉ... (in stampa). Planck early results: Cluster Sunyaev-Zeldovich optical scaling relations. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CANTALUPO, C. M., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHIANG, L. -Y, CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOBASHI, K., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FALGARONE, E., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, A. H., JONCAS, G., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MANDOLESI, N., MANN, R., MARIS, M., MARSHALL, D. J., MARTIN, P., MARTÍNEZ-GONZÁLEZ, E., MARTON, G., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATI, F., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PALADINI, R., PASIAN, F., PATANCHON, G., PEARSON, T. J., PELKONEN, V. -M., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., REA... (in stampa). Planck Early Results: The Galactic Cold Core Population revealed by the first all-sky survey. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

A. R. ADE, P., AGHANIM, N., ANGELAKIS, E., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., J. BANDAY, A., B. BARREIRO, R., G. BARTLETT, J., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BONALDI, A., BONAVERA, L., R. BOND, J., BORRILL, J., R. BOUCHET, F., BUCHER, M., BURIGANA, C., CABELLA, P., CAPPELLINI, B., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHEN, X., CHIANG, L. -Y, R. CHRISTENSEN, P., L. CLEMENTS, D., COLOMBI, S., COUCHOT, F., COULAIS, A., P. CRILL, B., CUTTAIA, F., DANESE, L., D. DAVIES, R., J. DAVIS, R., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., A. ENSSLIN, T., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., FUHRMANN, L., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., M. GÓRSKI, K., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HENROT-VERSILLÉ, S., HERRANZ, D., R. HILDEBRANDT, S., HIVON, E., HOBSON, M., A. HOLMES, W., HOVEST, W., J. HOYLAND, R., M. HUFFENBERGER, K., HUYNH, M., H. JAFFE, A., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., S. KISNER, T., KNEISSL, R., KNOX, L., P. KRICHBAUM, T., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., J. LAUREIJS, R., LAVONEN, N., R. LAWRENCE, C., LEACH, S., P. LEAHY, J., LEONARDI, R., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., M. LUBIN, P., F. MACÍAS-PÉREZ, J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MASSARDI, M., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., R. MEINHOLD, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MINGALIEV, M., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NESTORAS, I., B. NETTERFIELD, C., NIEPPOLA, E., U. NORGAARD-NIELSEN, H., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PARTRIDGE, B., PASIAN, F., PATANCHON, G., J. PEARSON, T., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PIERPAOLI, E., PLASZCZYNSKI, S., PLATANIA, P., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PROCOP... (in stampa). Planck Early Results: ERCSC Validation and Extreme Radio Sources. ASTRONOMY & ASTROPHYSICS, vol. 2011; p. ---, ISSN: 0004-6361

ABERGEL, A., ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DAME, T., DANESE, L., DAVIES, R. D., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRENIER, I. A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., JAFFE, T. R., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A.,

LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MANDOLESI, N., MANN, R., MARIS, M., MARSHALL, D. J., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MENDES, L., MENNELLA, A., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAJOT, F., PALADINI, R., PASIAN, F., PATANCHON, G., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., RACHEN, J. P., REACH, W. T., REBOLO, R., REICH, W., RENAULT, C., RICCI... (in stampa). Planck Early Results: Properties of the interstellar medium in the Galactic plane. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTELMANN, M., BARTLETT, J. G., BATTANER, E., BATTYE, R., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BROWN, M. L., BUCHER, M., BURIGANA, C., CABELLA, P., CANTALUPO, C. M., CARDOSO, J. -F., CARVALHO, P., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHIANG, L. -Y, CHIANG, C., CHON, G., CHRISTENSEN, P. R., CHURAZOV, E., CLEMENTS, D. L., COLAFRANCESCO, S., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DA SILVA, A., DAHLE, H., DANESE, L., DAVIS, R. J., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DIEGO, J. M., DOLAG, K., DOLE, H., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., EISENHARDT, P., ENSSLIN, T. A., FEROZ, F., FINELLI, F., FLORES, I., FORNI, O., FOSALBA, P., FRAILIS, M., FRANCESCHI, E., FROMENTEAU, S., GALEOTTA, S., GANGA, K., GÉNOVA-SANTOS, R. T., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GONZÁLEZ-RIESTRA, R., GÓRSKI, K. M., GRAINGE, K. J. B., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HARRISON, D., HEINÄMÄKI, P., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., HURIER, G., HURLEY-WALKER, N., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LE JEUNE, M., LEACH, S., LEONARDI, R., LI, C., LIDDLE, A., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MEI, S., MEINHOLD, P. R., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATI, F., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., ... (in stampa). Planck Early Results: The all-sky Early Sunyaev-Zeldovich cluster sample. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BOCK, J. J., BONALDI, A., BOND, J. R., BORRILL, J., BOUCHET, F. R., BOULANGER, F., BUCHER, M., BURIGANA, C., CABELLA, P., CANTALUPO, C. M., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHIANG, L. -Y, CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIES, R. D., DE BERNARDIS, P., DE GASPERIS, G., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DOERL, U., DOI, Y., DONZELLI, S., DORÉ, O., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., FALGARONE, E., FINELLI, F., FORNI, O., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIARDINO, G., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., IKEDA, N., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KITAMURA, Y., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEONARDI, R., LEROY, C., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MALINEN, J., MANDOLESI, N., MANN, R., MARIS, M., MARSHALL, D. J., MARTIN, P., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MELCHIORRI, A., MENDES, L., MENNELLA, A., MENY, C., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATI, F., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., OSBORNE, S., PAGANI, L., PAJOT, F., PALADINI, R., PASIAN, F., PATANCHON, G., PELKONEN, V. -M., PERDEREAU, O., PEROTTO, L., PERROTTA, F., PIACENTINI, F., PIAT, M., PLASZCZYNSKI, S., POINTECOUTEAU, E., POLENTA, G., PONTHIEU, N., POUTANEN, T., PRÉZEAU, G., PRUNET, S., PUGET, J. -L., REACH, W. T., REB... (in stampa). Planck Early Results: The submillimetre properties of a sample of Galactic cold clumps. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

ADE, P. A. R., AGHANIM, N., ARNAUD, M., ASHDOWN, M., AUMONT, J., BACCIGALUPI, C., BALBI, A., BANDAY, A. J., BARREIRO, R. B., BARTLETT, J. G., BATTANER, E., BENABED, K., BENOÎT, A., BERNARD, J. -P., BERSANELLI, M., BHATIA, R., BONALDI, A., BONAVERA, L., BOND, J. R., BORRILL, J., BOUCHET, F. R., BUCHER, M., BURIGANA, C., BUTLER, R. C., CABELLA, P., CANTALUPO, C. M., CAPPELLINI, B., CARDOSO, J. -F., CATALANO, A., CAYÓN, L., CHALLINOR, A., CHAMBALLU, A., CHARY, R. -R., CHEN, X., CHIANG, L. -Y, CHIANG, C., CHRISTENSEN, P. R., CLEMENTS, D. L., COLOMBI, S., COUCHOT, F., COULAIS, A., CRILL, B. P., CUTTAIA, F., DANESE, L., DAVIS, R. J., DE BERNARDIS, P., DE ROSA, A., DE ZOTTI, G., DELABROUILLE, J., DELOUIS, J. -M., DÉSERT, F. -X., DICKINSON, C., DIEGO, J. M., DOLAG, K., DOLE, H., DONZELLI, S., DORÉ, O., DÖRL, U., DOUSPIS, M., DUPAC, X., EFSTATHIOU, G., ENSSLIN, T. A., ERIKSEN, H. K., FINELLI, F., FORNI, O., FOSALBA, P., FRAILIS, M., FRANCESCHI, E., GALEOTTA, S., GANGA, K., GIARD, M., GIRAUD-HÉRAUD, Y., GONZÁLEZ-NUEVO, J., GÓRSKI, K. M., GRATTON, S., GREGORIO A., A., GRUPPUSO, A., HAISSINSKI, J., HANSEN, F. K., HARRISON, D., HELOU, G., HENROT-VERSILLÉ, S., HERNÁNDEZ-MONTEAGUDO, C., HERRANZ, D., HILDEBRANDT, S. R., HIVON, E., HOBSON, M., HOLMES, W. A., HORNSTRUP, A., HOVEST, W., HOYLAND, R. J., HUFFENBERGER, K. M., HUYNH, M., JAFFE, A. H., JONES, W. C., JUVELA, M., KEIHÄNEN, E., KESKITALO, R., KISNER, T. S., KNEISSL, R., KNOX, L., KURKI-SUONIO, H., LAGACHE, G., LÄHTEENMÄKI, A., LAMARRE, J. -M., LASENBY, A., LAUREIJS, R. J., LAWRENCE, C. R., LEACH, S., LEAHY, J. P., LEONARDI, R., LEÓN-TAVARES, J., LEROY, C., LILJE, P. B., LINDEN-VORNLE, M., LÓPEZ-CANIEGO, M., LUBIN, P. M., MACÍAS-PÉREZ, J. F., MACTAVISH, C. J., MAFFEI, B., MAGGIO, G., MAINO, D., MANDOLESI, N., MANN, R., MARIS, M., MARLEAU, F., MARSHALL, D. J., MARTÍNEZ-GONZÁLEZ, E., MASI, S., MASSARDI, M., MATARRESE, S., MATTHAI, F., MAZZOTTA, P., MCGEHEE, P., MEINHOLD, P. R., MELCHIORRI, A., MELIN, J. -B., MENDES, L., MENNELLA, A., MITRA, S., MIVILLE-DESCHÊNES, M. -A., MONETI, A., MONTIER, L., MORGANTE, G., MORTLOCK, D., MUNSHI, D., MURPHY, A., NASELSKY, P., NATOLI, P., NETTERFIELD, C. B., NORGAARD-NIELSEN, H. U., NOVIELLO, F., NOVIKOV, D., NOVIKOV, I., O'DWYER, I. J., OSBORNE, S., PAJOT, F., PALADINI, R., PARTRIDGE, B., PASIAN, F., PATANCHON... (in stampa). Planck Early Results: The Early Release Compact Source Catalog. ASTRONOMY & ASTROPHYSICS; p. ---, ISSN: 0004-6361

11. LANCERI Livio

M. Bomben, L. Bosisio, G. Della Ricca, LANCERI L., L. Vitale, et al. BaBar Collaboration (2010). Measurements of charged current lepton universality and |Vus| using tau lepton decays to e- ¿bar_e ¿_t, µ- ¿bar_µ ¿_t, p- ¿_t, and K- ¿_t. PHYSICAL REVIEW LETTERS, vol. 105; p. 051602/1-051602/8, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.051602

J. Lees, V. Poireau, V. Tisserand, J. Garra Tico, E. Grauges, D. Milanes, A. Palano, M. Pappagallo, G. Eigen, B. Stugu, D. Brown, L. Kerth, Yu. Kolomensky, G. Lynch, H. Koch, T. Schroeder, D. Asgeirsson, C. Hearty, T. Mattison, J. McKenna, A. Khan, V. Blinov, A. Buzykaev, V. Druzhinin, V. Golubev, E. Kravchenko, A. Onuchin, S. Serednyakov, Yu. Skovpen, E. Solodov, K. Todyshev, A. Yushkov, M. Bondioli, D. Kirkby, A. Lankford, M. Mandelkern, H. Atmacan, J. Gary, F. Liu, O. Long, G. Vitug, C. Campagnari, T. Hong, D. Kovalskyi, J. Richman, C. West, A. Eisner, J. Kroseberg, W. Lockman, A. Martinez, T. Schalk, B. Schumm, A. Seiden, D. Chao, C. Cheng, D. Doll, B. Echenard, K. Flood, D. Hitlin, P. Ongmongkolkul, F. Porter, A. Rakitin, R. Andreassen, Z. Huard, B. Meadows, M. Sokoloff, L. Sun, P. Bloom, W. Ford, A. Gaz, M. Nagel, U. Nauenberg, J. Smith, S. Wagner, R. Ayad, W. Toki, B. Spaan, M. Kobel, K. Schubert, R. Schwierz, D. Bernard, M. Verderi, P. Clark, S. Playfer, D. Bettoni, C. Bozzi, R. Calabrese, G. Cibinetto, E. Fioravanti, I. Garzia, E. Luppi, M. Munerato, M. Negrini, L. Piemontese, V. Santoro, R. Baldini-Ferroli, A. Calcaterra, R. de Sangro, G. Finocchiaro, P. Patteri, I. Peruzzi, M. Piccolo, M. Rama, A. Zallo, R. Contri, E. Guido, M. Lo Vetere, M. Monge, S. Passaggio, C. Patrignani, E. Robutti, B. Bhuyan, V. Prasad, C. Lee, M. Morii, A. Edwards, A. Adametz, J. Marks, U. Uwer, H. Lacker, T. Lueck, P. Dauncey, P. Behera, U. Mallik, C. Chen, J. Cochran, W. Meyer, S. Prell, A. Rubin, A. Gritsan, Z. Guo, N. Arnaud, M. Davier, D. Derkach, G. Grosdidier, F. Le Diberder, A. Lutz, B. Malaescu, P. Roudeau, M. Schune, A. Stocchi, G. Wormser, D. Lange, D. Wright, I. Bingham, C. Chavez, J. Coleman, J. Fry, E. Gabathuler, D. Hutchcroft, D. Payne, C. Touramanis, A. Bevan, F. Di Lodovico, R. Sacco, M. Sigamani, G. Cowan... (2012). Search for Low-Mass Dark-Sector Higgs Bosons. PHYSICAL REVIEW LETTERS, vol. 108; p. 211801-211807, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.108.211801

J. Lees, V. Poireau, V. Tisserand, J. Garra Tico, E. Grauges, M. Martinelli, D. Milanes, A. Palano, M. Pappagallo, G. Eigen, B. Stugu, D. Brown, L. Kerth, Yu. Kolomensky, G. Lynch, H. Koch, T. Schroeder, D. Asgeirsson, C. Hearty, T. Mattison, J. McKenna, A. Khan, V. Blinov, A. Buzykaev, V. Druzhinin, V. Golubev, E. Kravchenko, A. Onuchin, S. Serednyakov, Yu. Skovpen, E. Solodov, K. Todyshev, A. Yushkov, M. Bondioli, D. Kirkby, A. Lankford, M. Mandelkern, D. Stoker, H. Atmacan, J. Gary, F. Liu, O. Long, G. Vitug, C. Campagnari, T. Hong, D. Kovalskyi, J. Richman, C. West, A. Eisner, J. Kroseberg, W. Lockman, A. Martinez, T. Schalk, B. Schumm, A. Seiden, C. Cheng, D. Doll, B. Echenard, K. Flood, D. Hitlin, P. Ongmongkolkul, F. Porter, A. Rakitin, R. Andreassen, M. Dubrovin, Z. Huard, B. Meadows, M. Sokoloff, L. Sun, P. Bloom, W. Ford, A. Gaz, M. Nagel, U. Nauenberg, J. Smith, S. Wagner, R. Ayad, W. Toki, B. Spaan, M. Kobel, K. Schubert, R. Schwierz, D. Bernard, M. Verderi, P. Clark, S. Playfer, D. Bettoni, C. Bozzi, R. Calabrese, G. Cibinetto, E. Fioravanti, I. Garzia, E. Luppi, M. Munerato, M. Negrini, L. Piemontese, V. Santoro, R. Baldini-Ferroli, A. Calcaterra, R. de Sangro, G. Finocchiaro, M. Nicolaci, P. Patteri, I. Peruzzi, M. Piccolo, M. Rama, A. Zallo, R. Contri, E. Guido, M. Lo Vetere, M. Monge, S. Passaggio, C. Patrignani, E. Robutti, B. Bhuyan, V. Prasad, C. Lee, M. Morii, A. Edwards, A. Adametz, J. Marks, U. Uwer, F. Bernlochner, M. Ebert, H. Lacker, T. Lueck, P. Dauncey, M. Tibbetts, P. Behera, U. Mallik, C. Chen, J. Cochran, W. Meyer, S. Prell, E. Rosenberg, A. Rubin, A. Gritsan, Z. Guo, N. Arnaud, M. Davier, G. Grosdidier, F. Le Diberder, A. Lutz, B. Malaescu, P. Roudeau, M. Schune, A. Stocchi, G. Wormser, D. Lange, D. Wright, I. Bingham, C. Chavez, J. Coleman, J. Fry, E. Gabathuler, D.

Hutchcroft, ... (2012). Amplitude analysis and measurement of the time-dependent CP asymmetry of B^{0}¿K_{S}^{0}K_{S}^{0}K_{S}^{0} decays. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 85; p. 054023-054043, ISSN: 1550-7998, doi: 10.1103/PhysRevD.85.054023

J. Lees, V. Poireau, V. Tisserand, J. Garra Tico, E. Grauges, M. Martinelli, D. Milanes, A. Palano, M. Pappagallo, G. Eigen, B. Stugu, D. Brown, L. Kerth, Yu. Kolomensky, G. Lynch, H. Koch, T. Schroeder, D. Asgeirsson, C. Hearty, T. Mattison, J. McKenna, A. Khan, V. Blinov, A. Buzykaev, V. Druzhinin, V. Golubev, E. Kravchenko, A. Onuchin, S. Serednyakov, Yu. Skovpen, E. Solodov, K. Todyshev, A. Yushkov, M. Bondioli, D. Kirkby, A. Lankford, M. Mandelkern, D. Stoker, H. Atmacan, J. Gary, F. Liu, O. Long, G. Vitug, C. Campagnari, T. Hong, D. Kovalskyi, J. Richman, C. West, A. Eisner, J. Kroseberg, W. Lockman, A. Martinez, T. Schalk, B. Schumm, A. Seiden, C. Cheng, D. Doll, B. Echenard, K. Flood, D. Hitlin, P. Ongmongkolkul, F. Porter, A. Rakitin, R. Andreassen, M. Dubrovin, Z. Huard, B. Meadows, M. Sokoloff, L. Sun, P. Bloom, W. Ford, A. Gaz, M. Nagel, U. Nauenberg, J. Smith, S. Wagner, R. Ayad, W. Toki, B. Spaan, M. Kobel, K. Schubert, R. Schwierz, D. Bernard, M. Verderi, P. Clark, S. Playfer, D. Bettoni, C. Bozzi, R. Calabrese, G. Cibinetto, E. Fioravanti, I. Garzia, E. Luppi, M. Munerato, M. Negrini, L. Piemontese, V. Santoro, R. Baldini-Ferroli, A. Calcaterra, R. de Sangro, G. Finocchiaro, M. Nicolaci, P. Patteri, I. Peruzzi, M. Piccolo, M. Rama, A. Zallo, R. Contri, E. Guido, M. Lo Vetere, M. Monge, S. Passaggio, C. Patrignani, E. Robutti, B. Bhuyan, V. Prasad, C. Lee, M. Morii, A. Edwards, A. Adametz, J. Marks, U. Uwer, F. Bernlochner, M. Ebert, H. Lacker, T. Lueck, P. Dauncey, M. Tibbetts, P. Behera, U. Mallik, C. Chen, J. Cochran, W. Meyer, S. Prell, E. Rosenberg, A. Rubin, A. Gritsan, Z. Guo, N. Arnaud, M. Davier, G. Grosdidier, F. Le Diberder, A. Lutz, B. Malaescu, P. Roudeau, M. Schune, A. Stocchi, G. Wormser, D. Lange, D. Wright, I. Bingham, C. Chavez, J. Coleman, J. Fry, E. Gabathuler, D. Hutchcroft, ... (2012). Search for CP violation in the decay t^{-}¿p^{-}K_{s}^{0}(=Op^{0})¿_{t}. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 85; p. 031102(R)-1-031102(R)-8, ISSN: 1550-7998, doi: 10.1103/PhysRevD.85.031102

J. Lees, V. Poireau, V. Tisserand, J. Garra Tico, E. Grauges, M. Martinelli, D. Milanes, A. Palano, M. Pappagallo, G. Eigen, B. Stugu, D. Brown, L. Kerth, Yu. Kolomensky, G. Lynch, H. Koch, T. Schroeder, D. Asgeirsson, C. Hearty, T. Mattison, J. McKenna, R. So, A. Khan, V. Blinov, A. Buzykaev, V. Druzhinin, V. Golubev, E. Kravchenko, A. Onuchin, S. Serednyakov, Yu. Skovpen, E. Solodov, K. Todyshev, A. Yushkov, M. Bondioli, D. Kirkby, A. Lankford, M. Mandelkern, D. Stoker, H. Atmacan, J. Gary, F. Liu, O. Long, G. Vitug, C. Campagnari, T. Hong, D. Kovalskyi, J. Richman, C. West, A. Eisner, J. Kroseberg, W. Lockman, A. Martinez, T. Schalk, B. Schumm, A. Seiden, C. Cheng, D. Doll, B. Echenard, K. Flood, D. Hitlin, P. Ongmongkolkul, F. Porter, A. Rakitin, R. Andreassen, M. Dubrovin, Z. Huard, B. Meadows, M. Sokoloff, L. Sun, P. Bloom, W. Ford, A. Gaz, M. Nagel, U. Nauenberg, J. Smith, S. Wagner, R. Ayad, W. Toki, B. Spaan, M. Kobel, K. Schubert, R. Schwierz, D. Bernard, M. Verderi, P. Clark, S. Playfer, D. Bettoni, C. Bozzi, R. Calabrese, G. Cibinetto, E. Fioravanti, I. Garzia, E. Luppi, M. Munerato, M. Negrini, L. Piemontese, V. Santoro, R. Baldini-Ferroli, A. Calcaterra, R. de Sangro, G. Finocchiaro, M. Nicolaci, P. Patteri, I. Peruzzi, M. Piccolo, M. Rama, A. Zallo, R. Contri, E. Guido, M. Lo Vetere, M. Monge, S. Passaggio, C. Patrignani, E. Robutti, B. Bhuyan, V. Prasad, C. Lee, M. Morii, A. Edwards, A. Adametz, J. Marks, U. Uwer, F. Bernlochner, M. Ebert, H. Lacker, T. Lueck, P. Dauncey, M. Tibbetts, P. Behera, U. Mallik, C. Chen, J. Cochran, W. Meyer, S. Prell, E. Rosenberg, A. Rubin, A. Gritsan, Z. Guo, N. Arnaud, M. Davier, G. Grosdidier, F. Le Diberder, A. Lutz, B. Malaescu, P. Roudeau, M. Schune, A. Stocchi, G. Wormser, D. Lange, D. Wright, I. Bingham, C. Chavez, J. Coleman, J. Fry, E. Gabathuler, D. Hut... (2011). Search for Hadronic Decays of a Light Higgs Boson in the Radiative Decay ¿¿¿A^{0}. PHYSICAL REVIEW LETTERS, vol. 107; p. 221803-1-221803-7, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.107.221803

12. LONGO Renata

D. DREOSSI, A. BERGAMASCHI, B. SCHMITT, E. VALLAZZA, F. ARFELLI, LONGO R., R.H. MENK, L. RIGON, T. ROKVIC, C. VENANZI, E. CASTELLI (2007). Clinical mammography at the SYRMEP beam line: Toward the digital detection system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 576(1); p. 160-163, ISSN: 0168-9002

NARANJO J.R, A. BROVELLI, LONGO R., R. BUDAI, R. KRISTEVA, BATTAGLINI P.P. (2007). EEG dynamics of the frontoparietal network during reaching preparation in humans. NEUROIMAGE, vol. 34; p. 1673-1682, ISSN: 1053-8119, doi: 10.1016/j.neuroimage.2006.07.049

LONGO R., A. ABRAMI, F. ARFELLI, P. BREGANT, V. CHENDA, M. A. COVA, D. DREOSSI, F. DE GUARRINI, R. H. MENK, E. QUAI, E. QUAIA, T. ROKVIC, M. TONUTTI, G. TROMBA, F. ZANCONATI, E. CASTELLI (2007). Phase contrast mammography with synchrotron radiation:

physical aspects of the clinical trial. In: Medical Imaging 2007: Physics of Medical Imaging

edited by Jiang Hsieh, Michael J. Flynn,

Proc. of SPIE Vol. 6510. San Diego, febbraio 2007, BELLINGHAM: Society of Photo-optical Instrumentation Engineers, vol. Proc. of SPIE Vol. 6510, p. 65100T-1-65100T-8, doi: 10.1117/12.708403

LONGO R., A. ASIMIDIS, D. CAVOURAS, C. ESBRAND, A. FANT, P. GASIOREK, H. GEORGIOU, G. HALL, J. JONES, J. LEAVER, G. LI, J. GRIFFITHS, D. MACHIN, N. MANTHOS, M. METAXAS, M. NOY, J. M. STBY, F. PSOMADELLIS, T. ROKVIC, G. ROYLE, H. SCHULERUD, R. SPELLER, PF. VAN DER STELT, S. THEODORIDIS, F. TRIANTIS, R. TURCHETTA, C. VENANZI (2007). A scanning system for intelligent imaging: I-ImaS. In: Medical Imaging 2007: Physics of Medical Imaging, edited by Jiang Hsieh, Michael J. Flynn,

Proc. of SPIE Vol. 6510. San Diego (CA) USA, febbraio 2007, BELLINGHAM: Society of Photo-optical Instrumentati, vol. 6510, p. 65100T-1-65100T-8, doi: 10.1117/12.708457

FANT A, GASIOREK P, TURCHETTA R, AVSET B, BERGAMASCHI A, CAVOURAS D, EVANGELOU I, FRENCH MJ, GALBIATI A, GEORGIOU H, HALL G, ILES G, JONES J, LONGO R., MANTHOS N, METAXAS MG, NOY M, OSTBY JM, PSOMADELLIS F, ROYLE GJ, SCHULERUD H, SPELLER RD, VAN DER STELT PF, THEODORIDIS S, TRIANTIS F, VENANZI C (2007). I-IMAS: A 1.5D sensor for high-resolution scanning. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 573; p. 27-29, ISSN: 0168-9002, doi: 10.1016/j.nima.2006.10.389

TURCHETTA R, FANT A, GASIOREK P, ESBRAND C, GRIFFITHS J.A, METAXAS M.G, ROYLE G.J, SPELLER R, VENANZI C, VAN DER STELT P.F, VERHEIJ H, LI G, THEODORIDIS S, GEORGIOU H, CAVOURAS D, HALL G, NOY M, JONES J, LEAVER J, MACHIN D, GREENWOOD S, KHALEEQ M, SCHULERUD H, ØSTBY J.M, TRIANTIS F, ASIMIDIS A, BOLANAKIS D, MANTHOS N, LONGO R., BERGAMASCHI A (2007). CMOS Monolithic Active Pixel Sensors (MAPS): Developments and future outlook. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 582; p. 866-870, ISSN: 0168-9002, doi: 10.1016/j.nima.2007.07.112

J.A. GRIFFITHS, M.G. METAXAS, S. PANI, H. SCHULERUD, C. ESBRAND, G.J. ROYLE, B. PRICE, T. ROKVIC, LONGO R., A. ASIMIDIS, E. BLETSAS, D. CAVOURAS, A. FANT, P. GASIOREK, H. GEORGIOU, G. HALL, J. JONES, J. LEAVER, G. LI, D. MACHIN, N. MANTHOS, J. MATHESON, M. NOY, J.M. ØSTBY, F. PSOMADELLIS, P.F. VAN DER STELT, S. THEODORIDIS, F. TRIANTIS, R. TURCHETTA, C. VENANZI, R.D. SPELLER (2008). Preliminary images from an adaptive imaging system. PHYSICA MEDICA, vol. 24; p. 117-121, ISSN: 1724-191X, doi: 10.1016/j.ejmp.2008.01.003

J.A. GRIFFITHS, C. VENANZI, R.D. SPELLER, G.J. ROYLE, M.G. METAXAS, C. ESBRAND, P.F. VAN DER STELT, G. LI, H. VERHEIJ, R. TURCHETTA, A. FANT, P. GASIOREK, S. THEODORIDIS, H. GEORGIOU, D. CAVOURAS, G. HALL, M. NOY, J. JONES, J. LEAVER, D. MACHIN, S. GREENWOOD, M. KHALEEQ, J. ØSTBY, H. SCHULERUD, F. TRIANTIS, A. ASIMIDIS, D. BOLANAKIS, N. MANTHOS, LONGO R., A. BERGAMASCHI (2008). Design and characterization of the I-ImaS multi-element x-ray detector system. IEEE TRANSACTIONS ON NUCLEAR SCIENCE, vol. 55; p. 827-832, ISSN: 0018-9499, doi: 10.1109/TNS.2008.2000477

D. DREOSSI, A. ABRAMI, F. ARFELLI, P. BREGANT, K. CASARIN, V. CHENDA, M.A. COVA, LONGO R., MENK R.-H., E. QUAI, E. QUAIA, L. RIGON, T. ROKVIC, D. SANABOR, M. TONUTTI, G. TROMBA, A. VASCOTTO, F. ZANCONATI, E. CASTELLI (2008). The mammography project at the SYRMEP beamline. EUROPEAN JOURNAL OF RADIOLOGY, vol. 68S; p. S58-S62, ISSN: 0720-048X, doi: 10.1016/J.EJRAD.2008.04.038

LONGO R., DURANTE M, BOTTIGLI U (a cura di) (2008). Nuovo Cimento The radiobiology in Italy supported by INFN. BOLOGNA: societa' italiana di Fisica, vol. 31 C, N.1

SANTARELLI X, GARBIN G, UKMAR M, LONGO R. (2009). Dependence of the fractional anisotropy in cervical spine from the number of diffusion gradients, repeated acquisition and voxel size. MAGNETIC RESONANCE IMAGING, vol. in press, ISSN: 0730-725X, doi: 10.1016/j.mri.2009.05.046

C. J. ESBRAND, C. D. ARVANITIS, S. PANI, B. D. PRICE, J. A. GRIFFITHS, M. METAXAS, G. J. ROYLE, M. NOY, J. LEAVER, LONGO R., T. ROKVIC, R. TURCHETTA, H. GIORGIOU, H. SCHULERUD, AND R. D. SPELLER (2009). Characterisation of the Components of a Prototype Scanning Intelligent Imaging System for Use in

Digital Mammography: The I-ImaS System. IEEE TRANSACTIONS ON NUCLEAR SCIENCE, vol. 56; p. 1419-1425, ISSN: 0018-9499, doi: 10.1109/TNS.2009.2015762

RIGON L, ARFELLI F, ASTOLFO A, BERGAMASCHI A, DREOSSI D, LONGO R., MENK R.-H, SCHMITT B, VALLAZZA E, CASTELLI E. (2009). A single-photon counting "edge-on" silicon detector for synchrotron radiation mammography. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 608; p. S62-S65, ISSN: 0168-9002

Rigon L, Arfelli F, Bergamaschi A, Chen RC, Dreossi D, LONGO R., Menk RH, Schmitt B, Vallazza E, Castelli E (2010). Evaluation of charge -sharing effects on the spatial resolution of the

PICASSO detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 617; p. 244-245, ISSN: 0168-9002

De Caro L., Scattarella S., Giannini C., Tangaro S., Rigon L., LONGO R., Bellotti (2010). Combined mixed approach algorithm for in-line phase-contrast x-ray imaging. MEDICAL PHYSICS, vol. 37; p. 3817-3827, ISSN: 0094-2405, doi: 10.1118/1.3447727

R C Chen R.C., LONGO R., Rigon R., Zanconati F., De Pellegrin A., Arfelli F., Dreossi D., Menk R-H, Vallazza E., Xiao T.Q., Castelli E. (2010). Measurement of the linear attenuation coefficients of

breast tissues by synchrotron radiation computed tomography. PHYSICS IN MEDICINE AND BIOLOGY, vol. 55; p. 4993-5005, ISSN: 0031-9155, doi: 10.1088/0031-9155/55/17/008

CHEN R. C., XIE H. L., RIGON L., LONGO R., CASTELLI E., XIAO T. Q. (2011). Phase retrieval in quantitative x-ray microtomography with a single sample-to-detector distance. OPTICS LETTERS, vol. 36; p. 1719-1721, ISSN: 0146-9592, doi: 10.1364/OL.36.001719

Chen R.C., Rigon L., LONGO R. (2011). Quantitative 3D refractive index decrement reconstruction using single-distance phase-contrast tomography data. JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol. 44; p. ---, ISSN: 0022-3727, doi: 10.1088/0022-3727/44/49/495401

Lopez F.C., Rigon L., LONGO R., Arfelli F., Bergamaschi A., Chen R.C., Dreossi D., Schmitt B., Vallazza E., Castelli E. (2011). Development of a fast read-out system of a single photon counting detector for mammography with synchrotron radiation. JOURNAL OF INSTRUMENTATION, vol. 6 C12031; p. ---, ISSN: 1748-0221, doi: 10.1088/1748-0221/6/12/C12031

F. Arfelli, A. Astolfo, R.-H. Menk, L. Rigon, F. Zanconati, A. De Pellegrin, R. C. Chen, D. Dreossi, LONGO R., E. Vallazza, E. Castelli (2010). The PICASSO digital detector for Diffraction Enhanced Imaging at ELETTRA. In: AIP Conference Proceedings. Melburne (Australia), 15-18 Febbraio 2011American Institute of Physics (AIP), p. 24-29, ISBN/ISSN: 9780735408135, doi: 10.1063/1.3478191

G. Tromba, LONGO R., A. Abrami, F. Arfelli, A. Astolfo, P. Bregant, F. Brun, K. Casarin, V. Chenda, D. Dreossi, M. Hola, J. Kaiser, L. Mancini, R. H. Menk, E. Quai, E. Quaia, L. Rigon, T. Rokvic, N. Sodini, D. Sanabor, E. Schultke, M. Tonutti, A. Vascotto, F. Zanconati, M. Cova, E. Castelli (2010). The SYRMEP Beamline of Elettra: Clinical Mammography and Bio-medical Applications. In: AIP Conference Proceedings. Melburne (Australia), 15-18 febbraio 2010American Institute of Physics (AIP), p. 18-23, ISBN/ISSN: 9780735408135, doi: 10.1063/1.3478190

Castelli E., Arfelli F., Dreossi D., LONGO R., Rokvic T., Cova M.A., Quaia E., Tonutti M., Zanconati F., Abrami A., Chenda V., Menk R.H., Quai E., Tromba G., Bregant P., de Guarrini F. (2007). Clinical mammography at the SYRMEP beam line. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. Volume 572 ; p. 237-240, ISSN: 0168-9002, doi: 10.1016/j.nima.2006.10.295

13. MARDIROSSIAN Fabio

CUPANI G., MEZZETTI M., MARDIROSSIAN F. (2008). Mass Estimation in the Outer Non-equilibrium Region of Galaxy Clusters. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 390; p. 645-654, ISSN: 0035-8711, doi: 10.1111/j.1365-2966.2008.13733.x

Cupani G., Mezzetti M., MARDIROSSIAN F. (2011). Angular momentum in cluster Spherical Collapse Model. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 417; p. 2554-2561, ISSN: 0035-8711

Cupani G., Mezzetti M., MARDIROSSIAN F. (2010). Cluster mass estimation through fair galaxies. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 403; p. 838-847, ISSN: 0035-8711, doi: 10.1111/j.1365-2966.2009.16157.x

Cremaschini C., Abate C., Ciani M., Grieco V., MARDIROSSIAN F., Paparini C., Zamberlan C. (2007). Comet Observations [A82 Osservatorio Astronomico di Trieste]. MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS, vol. Minor Planet Circular 59280, 5; p. 52-53, ISSN: 0736-6884

Cremaschini C., Cappetta M., Ciani M., MARDIROSSIAN F., Zamberlan C. (2007). Comet Observations. MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS, vol. Minor Planet Circular 58998, 4; p. 42-44, ISSN: 0736-6884

Lehky M., Tes, L., Boattini A., Fagioli G., Mazzucato M., Dolfi F., Tombelli M., Forti G., Buzzi L, Naves R., Campas M., Hasubick W., Rinner C., Reina E., Ligustri R., da Rio D., Michels H., Kadota K., Wakuda S, Herald D., McAndrew S. G., Rodriguez D., Christie G. W., Natusch T., Donato L., Gonano V., Guido E., Sostero G., Josa R., Brown, M., Bambery, R., Lawrence, K., Hicks, M., Helin, E., Thicksten, R., Gladman, B., Vanlaerhoven, C., Tucker, R., Bressi, T. H., Scotti, J. V., Sanborn, J. J., Skiff, B. A., Beshore, E. C., Odell, A. P., Hill, R. E., Gibbs, A. R., Christensen, E. J., Grauer, A. D., Kowalski, R. A., Larson, S. M., Bezpalko, M., Torres, D., Kracke, R., Spitz, G., Kistler, J., Stuart, J., Scruggs, S., Lepez, H. S., Durig, D. T., Hardage, D. S., Goodgame, J. R., Castellano, J., Takbou, S., Cozzi, E., Valentini, S., Kyrylenko, D., Ivashchenko, Y., Kugel, F., Cremaschini, C., Abate, C., Ciani, M., Grieco V., MARDIROSSIAN F., Villegas J. M., Reszelski M., McNaught, R. H., Garradd, G. J., Benavides, R., Temprano, J., Garcia, J., Arce, E., Navarro P., J. P., Fletcher, J., Marsden, B. G. (2007). Observations of Comets. MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS, vol. Minor Planet Electronic Circ.,; p. ---, ISSN: 0736-6884

Nicolini, M., Prosperi, E., Buzzi, L., Luppi, F., Naves, R., Campas, M., Hasubick, W., Rinner, C., Reina, E., Michels, H., Kadota, K., Asami, A., Seki, T., Wakuda, S., McAndrew, S. G., Rodriguez, D., Josa, R., Brown, M., Bambery, R., Lawrence, K., Hicks, M., Helin, E., Thicksten, R., Bressi, T. H., Read, M. T., Koehn, B. W., Christensen, E. J., Beshore, E. C., Gibbs, A. R., Grauer, A. D., Hill, R. E., Kowalski, R. A., Larson, S. M., Bezpalko, M., Torres, D., Kracke, R., Spitz, G., Kistler, J., Stuart, J., Scruggs, S., Mackintosh, R., Konishi, M., Durig, D. T., Williams, T. R., Bates, J. K., Dupouy, P., Barcelo, J., Casao, M., Morillas, F., Rodriguez, C., Cozzi, E., Denzau, H., Kugel, F., Cremaschini, C., Cappetta, M., Ciani M., MARDIROSSIAN F., Zamberlan C., Vollmann, W., Villegas, J. M., Sugiyama, Y., Suzuki, M., Guido, E., Sostero, G., Jacques, C., Pimentel, E., Morales, R., Doreste, J. L., Arce, E., Navarro P., J. P., Pastor, S., Reyes, J. A., Fletcher, J., Marsden, B. G. (2007). Title:

Observations of Comets . MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS, vol. Minor Planet Electronic Circ.,; p. ---, ISSN: 0736-6884

Barrena R., Girardi M., Boschin W., MARDIROSSIAN F. (2012). Environmental effects on the bright end of the galaxy luminosity function in galaxy clusters. ASTRONOMY & ASTROPHYSICS, vol. Volume 540; p. A90--, ISSN: 0004-6361, doi: 10.1051/0004-6361/201118586

14. MARTIN Anna

V.YU. ALEXAKHIN, YU. ALEXANDROV, G.D. ALEXEEV, M. ALEXEEV, A. AMOROSO, B. BADEEK, F. BALESTRA, J. BALL, J. BARTH, G. BAUM, M. BECKER, Y. BEDFER, C. BERNET, R. BERTINI, M. BETTINELLI, R. BIRSA, J. BISPLINGHOFF, P. BORDALO, F. BRADAMANTE, BRESSAN A., G. BRONA, E. BURTIN, M.P. BUSSA, V.N. BYTCHKOV, A. CHAPIRO, A. CICUTTIN, M. COLANTONI, A.A. COLAVITA, S. COSTA, M.L. CRESPO, N. D'HOSE, S. DALLA TORRE, S. DAS, S.S. DASGUPTA, R. DE MASI, N. DEDEK, D. DEMCHENKO, O.YU. DENISOV, L. DHARA, V. DIAZ, A.M. DINKELBACH, S.V. DONSKOV, V.A. DOROFEEV, N. DOSHITA, V. DUIC, W. DUNNWEBER, A. EFREMOV, P.D. EVERSHEIM, W. EYRICH, M. FAESSLER, P. FAULAND, A. FERRERO, L. FERRERO, M. FINGER, M. FINGER, JR, H. FISCHER, J. FRANZ, J.M. FRIEDRICH, V. FROLOV, R. GARFAGNINI, F. GAUTHERON, O.P. GAVRICHTCHOUK, S. GERASSIMOV, R. GEYER, M. GIORGI, B. GOBBO, S. GOERTZ, A.M. GORIN, O.A. GRAJEK, A. GRASSO, B. GRUBE, A. GUSKOV, F. HAAS, J. HANNAPPEL, D. VON HARRACH, T. HASEGAWA, S. HEDICKE, F.H. HEINSIUS, R. HERMANN, C. HE, F. HINTERBERGER, M. VON

HODENBERG, N. HORIKAWA, S. HORIKAWA, I. HORN, C. ILGNER, A.I. IOUKAEV, I. IVANCHIN, O. IVANOV, T. IWATA, R. JAHN, A. JANATA, R. JOOSTEN, N.I. JOURAVLEV, E. KABU, D. KANG, B. KETZER, G.V. KHAUSTOV, YU.A. KHOKHLOV, YU. KISSELEV, F. KLEIN, K. KLIMASZEWSKI, S. KOBLITZ, J.H. KOIVUNIEMI, V.N. KOLOSOV, E.V. KOMISSAROV, K. KONDO, K. KONIGSMANN, I. KONOROV, V.F. KONSTANTINOV, A.S. KORENTCHENKO, A. KORZENEV, A.M. KOTZINIAN, N.A. KOUTCHINSKI, O. KOUZNETSOV, K. KOWALIK, D. KRAMER, N.P. KRAVCHUK, G.V. KRIVOKHIZHIN, Z.V. KROUMCHTEIN, J. KUBART, R. KUHN, V. KUKHTIN, F. KUNNE, K. KUREK, M.E. LADYGIN, M. LAMANNA, J.M. LE GOFF, M. LEBERIG, A.A. LEDNEV, A. LEHMANN, J. LICHTENSTADT, T. LISKA, I. LUDWIG, A. MAGGIORA, M. MAGGIORA, A. MAGNON, G.K. MALLOT, C. MARCHAND, J. MARRONCLE, MARTIN A., J. MARZEC, L. MASEK, F. MASSMANN, T. MATSUDA, D. MATTHIA, A.N. MAXIMOV, W. MEYER, A. MIELECH, YU.V. MIKHAILOV, M.A. MOINESTER, T. NAGEL, O. NAHLE, J. NASSALSKI, S. NELIBA, D.P. NEYRET, V.I. NIKOLA... (2007). The Deuteron Spin-dependent Structure Function g1(d) and its First Moment. PHYSICS LETTERS. SECTION B, vol. 647; p. 8-17, ISSN: 0370-2693, doi: 10.1016/j.physletb.2006.12.076

AGEEV E. S, ALEXAKHIN V. YU, ALEXANDROV YU, ALEXEEV G. D, ALEXEEV M, AMOROSO A, BADELEK B, BALESTRA F, BALL J, BARTH J, BAUM G, BECKER M, BEDFER Y, BERGLUND P, BERNET C, BERTINI R, BETTINELLI M, BIRSA R, BISPLINGHOFF J, BORDALO P, BRADAMANTE F, BRESSAN A, BRONA G, BURTIN E, BUSSA M. P, BYTCHKOV V. N, CHAPIRO A, CICUTTIN A, COLANTONI M, COLAVITA A. A, COSTA S, CRESPO M. L, D'HOSE N, DALLA TORRE S, DAS S, DASGUPTA S. S, DE MASI R, DEDEK N, DEMCHENKO D, DENISOV O. YU, DHARA L, DIAZ V, DINKELBACH A. M, DONSKOV S. V, DOROFEEV V. A, DOSHITA N, DUIC V, DÜNNWEBER W, EFREMOV A, EVERSHEIM P. D, EYRICH W, FAESSLER M, FALALEEV V, FAULAND P, FERRERO A, FERRERO L, FINGER M, FINGER M. JR, FISCHER H, FRANZ J, FRIEDRICH J. M, FROLOV V, FUCHS U, GARFAGNINI R, GAUTHERON F, GAVRICHTCHOUK O. P, GERASSIMOV S, GEYER R, GIORGI M, GOBBO B, GOERTZ S, GORIN A. M, GRAJEK O. A, GRASSO A, GRUBE B, GUSKOV A, HAAS F, HANNAPPEL J, VON HARRACH D, HASEGAWA T, HEDICKE S, HEINSIUS F. H, HERMANN R, HESS C, HINTERBERGER F, VON HODENBERG M, HORIKAWA N, HORIKAWA S, HORN I, ILGNER C, IOUKAEV A. I, ISHIMOTO S, IVANCHIN I, IVANOV O, IWATA T, JAHN R, JANATA A, JOOSTEN R, JOURAVLEV N. I, KABUSS E, KALINNIKOV V, KANG D, KETZER B, KHAUSTOV G. V, KHOKHLOV YU. A, KISSELEV YU, KLEIN F, KLIMASZEWSKI K, KOBLITZ S, KOIVUNIEMI J. H, KOLOSOV V. N, KOMISSAROV E. V, KONDO K, KÖNIGSMANN K, KONOROV I, KONSTANTINOV V. F, KORENTCHENKO A. S, KORZENEV A, KOTZINIAN A. M, KOUTCHINSKI N. A, KOUZNETSOV O, KOWALIK K, KRAMER D, KRAVCHUK N. P, KRIVOKHIZHIN G. V, KROUMCHTEIN Z. V, KUBART J, KUHN R, KUKHTIN V, KUNNE F, KUREK K, LADYGIN M. E, LAMANNA M, LE GOFF J. M, LEBERIG M, LEDNEV A. A, LEHMANN A, LICHTENSTADT J, LISKA T, LUDWIG I, MAGGIORA A, MAGGIORA M, MAGNON A, MALLOT G. K, MARCHAND C, MARRONCLE J, MARTIN A., MARZEC J, MASEK L, MASSMANN F, MATSUDA T, MATTHIÄ D, MAXIMOV A. N, MEYER W, MIELECH A, MIKHAILOV YU. V, MOINESTER M. A, NAGEL T, NÄHLE O, NASSALSKI J, NELIBA S, NEYRET D. P, NIKOLAENKO V. I, NOZDRIN A. A, OBRAZTSOV V. F, OLSH... (2007). A New measurement of the Collins and Sivers asymmetries on a transversely polarised deuteron target. NUCLEAR PHYSICS. B, vol. 765; p. 31-70, ISSN: 0550-3213, doi: 10.1016/j.nuclphysb.2006.10.027

ABBON P, ALEKSEEV M, ANGERER H, APOLLONIO M, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, BUSSO L, CHIOSSO M, CILIBERTI P, COLANTONI M. L, COSTA S, DALLA TORRE S, DAFNI T, DELAGNES E, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FASO D, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KÖNIGSMANN K, KOLOSOV V. N, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S., MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PAGANO P, PANEBIANCO S, PANZIERI D, PAUL S, PESARO G, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TESSAROTTO F, TEUFEL A, WOLLNY H (2007). Fast photon detection for the COMPASS RICH detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION B, BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol. 172; p. 75-78, ISSN: 0168-583X, doi: 10.1016/j.nuclphysbps.2007.07.006

ABBON P, ALBRECHT E, ALEXAKHIN V. YU, ALEXANDROV YU, ALEXEEV G. D, ALEKSEEV M. G, AMOROSO A, ANGERER H, ANOSOV V. A, BADELEK B, BALESTRA F, BALL J, BARTH J, BAUM G, BECKER M, BEDFER Y, BERGLUND P, BERNET C, BERTINI R, BETTINELLI M, BIRSA R, BISPLINGHOFF J, BORDALO P, BOSTEELS M, BRADAMANTE F, BRAEM A, BRAVAR A, BRESSAN A, BRONA G, BURTIN E, BUSSA M. P, BYTCHKOV V. N, CHALIFOUR M, CHAPIRO A, CHIOSSO M, CILIBERTI P, CICUTTIN A, COLANTONI M, COLAVITA A. A, COSTA S, CRESPO M. L, CRISTAUDO P, DAFNI T, D'HOSE N, DALLA TORRE S, D'AMBROSIO C, DAS S, DASGUPTA S. S, DELAGNES E, DE MASI R, DECK P, DEDEK N, DEMCHENKO D, DENISOV O. YU, DHARA L, DIAZ V, DIBIASE N, DINKELBACH A. M, DOLGOPOLOV A. V, DONATI A, DONSKOV S. V, DOROFEEV V. A, DOSHITA N, DURAND D, DUIC V, DÜNNWEBER W, EFREMOV A, EVERSHEIM P. D, EYRICH W, FAESSLER M, FALALEEV V, FAULAND P, FERRERO A, FERRERO L, FINGER M, FINGER M. JR, FISCHER H, FRANCO C, FRANZ J, FRATNIK F, FRIEDRICH J. M, FROLOV V, FUCHS U, GARFAGNINI R, GATIGNON L, GAUTHERON F, GAVRICHTCHOUK O. P, GERASSIMOV S, GEYER R, GHELLER J. M, GIGANON A, GIORGI M, GOBBO B, GOERTZ S, GORIN A. M, GOUGNAUD F, GRABMÜLLER S, GRAJEK O. A, GRASSO A, GRUBE B, GRÜNEMAIER A, GUSKOV A, HAAS F, HAGEMANN R, HANNAPPEL J, VON HARRACH D, HASEGAWA T, HECKMANN J, HEDICKE S, HEINSIUS F. H, HERMANN R, HESS C, HINTERBERGER F, VON HODENBERG M, HORIKAWA N, HORIKAWA S, HORN I, ILGNER C, IOUKAEV A. I, ISHIMOTO S, IVANCHIN I, IVANOV O, IWATA T, JAHN R, JANATA A, JOOSTEN R, JOURAVLEV N. I, KABUSS E, KALINNIKOV V, KANG D, KARSTENS F, KASTAUN W, KETZER B, KHAUSTOV G. V, KHOKHLOV YU. A, KIEFER J, KISSELEV YU, KLEIN F, KLIMASZEWSKI K, KOBLITZ S, KOIVUNIEMI J. H, KOLOSOV V. N, KOMISSAROV E. V, KONDO K, KÖNIGSMANN K, KONOPLYANNIKOV A. K, KONOROV I, KONSTANTINOV V. F, KORENTCHENKO A. S, KORZENEV A, KOTZINIAN A. M, KOUTCHINSKI N. A, KOUZNETSOV O, KOWALIK K, KRAMER D, KRAVCHUK N. P, KRIVOKHIZHIN G. V, KROUMCHTEIN Z. V, KUBART J, KUHN R, KUKHTIN V, KUNNE F, KUREK K, KUZMIN N. A, LAMANNA M, LE GO... (2007). The COMPASS experiment at CERN. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 577; p. 455-518, ISSN: 0168-9002, doi: 10.1016/j.nima.2007.03.026

ABBON P, ALEKSEEV M, ANGERER H, APOLLONIO M, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, BUSSO L, CHIOSSO M, CILIBERTI P, COLANTONI M. L, COSTA S, DIBIASE N, DAFNI T, TORRE S. DALLA, DIAZ V, DUIC V, DELAGNES E, DESCHAMPS H, EYRICH W, FASO D, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KÖNIGSMANN K, KOLOSOV V. N, KONOROV I, KRAMER D, KUNNE F, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NEYRET D, NERLING F, PAGANO P, PAUL S, PANEBIANCO S, PANZIERI D, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROCCO E, ROBINET F, SCHIAVON P., SCHILL C, SCHOENMEIER P, SILVA L, SLUNECKA M, STEIGER L, SOZZI F, SULC M, SVEC M, TESSAROTTO F, TEUFEL A, WOLLNY H (2007). Fast photon detection for COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572(1); p. 419-421, ISSN: 0168-9002

M. ALEKSEEV, V.YU. ALEXAKHIN, YU. ALEXANDROV, G.D. ALEXEEV, A. AMOROSO, A. ARBUZOV, B. BADELEK, F. BALESTRA, J. BALL, J. BARTH, G. BAUM, Y. BEDFER, C. BERNET, R. BERTINI, M. BETTINELLI, R. BIRSA, J. BISPLINGHOFF, P. BORDALO, F. BRADAMANTE, A. BRAVAR, BRESSAN A., G. BRONA, E. BURTIN, M.P. BUSSA, A. CHAPIRO, M. CHIOSSO, A. CICUTTIN, M. COLANTONI, S. COSTA, M.L. CRESPO, S. DALLA TORRE, T. DAFNI, S. DAS, S.S. DASGUPTA, R.DE MASSI, N. DEDEK, O.YU. DENISOV, L. DHARA, V. DIAZ, A.M. DINKELBACH, S.V. DONSKOV, V.A. DOROFEEV, N. DOSHITA, V. DUIC, W. DUNNWEBER, P.D. EVERSHEIM, W. EYRICH, M. FABRO, M. FAESSLER, V. FALALEEV, A. FERRERO, L. FERRERO, M. FINGER, M. FINGER, JR, H. FISCHER, C. FRANCO, J. FRANZ, J.M. FRIEDRICH, V. FROLOV, R. GARFAGNINI, F. GAUTHERON, O.P. GAVRICHTCHOUK, R. GAZDA, S. GERASSIMOV, R. GEYER, M. GIORGI, B. GOBBO, S. GOERTZ, A.M. GORIN, S. GRABMULLER, O.A. GRAJEK, A. GRASSO, B. GRUBE, R. GUSHTERSKI, A. GUSKOV, F. HAAS, J. HANNAPPEL, D. VON HARRACH, T. HASEGAWA, J. HECKMANN, S. HEDICKE, F.H. HEINSIUS, R. HERMANN, C. HESS, F. HINTERBERGER, M. VON HODENBERG, N. HORIKAWA, S. HORIKAWA, N. D'HOSE, C. ILGNER, A.I. IOUKAEV, S. ISHIMOTO, O. IVANOV, YU. IVANSHIN, T. IWATA, R. JAHN, A. JANATA, P. JASINSKI, R. JOOSTEN, N.I. JOURAVLEV, E. KABUSS, D. KANG, B. KETZER, G.V. KHAUSTOV, YU.A. KHOKHLOV, YU. KISSELEV, F. KLEIN, K. KLIMASZEWSKI, S. KOBLITZ, J.H. KOIVUNIEMI, V.N. KOLOSOV, E.V. KOMISSAROV, K. KONDO, K. KONIGSMANN, I. KONOROV, V.F. KONSTANTINOV, A.S. KORENTCHENKO, A. KORZENEV, A.M. KOTZINIAN, N.A. KOUTCHINSKI, O. KOUZNETSOV, A. KRAL, N.P. KRAVCHUK, Z.V. KROUMCHTEIN, R. KUHN, F. KUNNE, K. KUREK, M.E. LADYGIN, M. LAMANNA, J.M. LE GOFF, A.A. LEDNEV, A. LEHMANN, J. LICHTENSTADT, T. LISKA, I. LUDWIG, A. MAGGIORA, M. MAGGIORA, A. MAGNON, G.K. MALLOT, A. MANN, C. MARCHAND, J. MARRONCLE, MARTIN A., J. MARZEC, F. MASSMANN, T. MATSUDA, A.N. MAXIMOV, W. MEYER, A. MIELECH, YU.V. MIKHAILOV, M.A. MOINESTER, A. MUTTER, A. NAGAYTSEV, T. NAGEL, O. NAHLE, J. NASSALSKI, S. NELIBA, F. ... (2007). Double spin asymmetry in exclusive rho0 muoproduction at COMPASS. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 52; p. 255-265, ISSN: 1434-6044

ABBON P, ALEXEEV M, ANGERER H, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A., CHIOSSO M, CILIBERTI P, COLANTONI M. L, DAFNI T, DALLA TORRE S, DELAGNES E, DENISOV O, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KOLOSOV V. N, KÖNIGSMANN K, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PANZIERI D, PAUL S, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHOENMEIER P, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TAKEKAWA S, TESSAROTTO F, TEUFEL A, WOLLNY H (2008). Pattern recognition and PID for COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 595 Issue 1; p. 233-236, ISSN: 0168-9002, doi: 10.1016/j.nima.2008.07.015

ALEXEEV M, BIRSA R, BRADAMANTE F, BRESSAN A., CHIOSSO M, CILIBERTI P, COLANTONI M.L, DALLA TORRE S, DENISOV O, DIAZ V, DUIC V, FERRERO A, GAYDE J.CH, GIORGI M, GOBBO B, KRAMER D, LEVORATO S, MAGGIORA A, MARTIN A., MENON G, PANZIERI D, PESARO G, POLAK J, ROCCO E, SCHIAVON P, SOZZI F, STEIGER L, SULC M, SVEC M, TAKEKAWA S, TESSAROTTO F (2008). On-line mirror alignment monitoring method for COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 595 Issue 1; p. 194-196, ISSN: 0168-9002, doi: 10.1016/j.nima.2008.07.014

ABBON P, ALEXEEV M, ANGERER H, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, CHIOSSO M, CILIBERTI P, COLANTONI M. L, DAFNI T, DALLA TORRE S, DELAGNES E, DENISOV O, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KOLOSOV V. N, KÖNIGSMANN K, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PANZIERI D, PAUL S, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHOENMEIER P, SCHROEDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TAKEKAWA S, TESSAROTTO F, TEUFEL A, WOLLNY H (2008). The characterisation of the multianode photomultiplier tubes for the RICH-1 upgrade project at COMPASS. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 595; p. 177-179, ISSN: 0168-9002, doi: 10.1016/j.nima.2008.07.074

ABBON P, ALEXEEV M, ANGERER H, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, CHIOSSO M, CILIBERTI P, COLANTONI M. L, DAFNI T, DALLA TORRE S, DELAGNES E, DENISOV O, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KOLOSOV V. N, KÖNIGSMANN K, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PANZIERI D, PAUL S, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHOENMEIER P, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TAKEKAWA S, TESSAROTTO F, TEUFEL A, WOLLNY H (2008). The COMPASS RICH-1 fast photon detection system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 595; p. 23-26, ISSN: 0168-9002, doi: 10.1016/j.nima.2008.07.103

ABBON P, ALEKSEEV M, ANGERER H, APOLLONIO M, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, BUSSO L, CHIOSSO M, CILIBERTI P, COLANTONI M. L, COSTA S, DALLA TORRE S, DAFNI T, DELAGNES E, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FASO D, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KÖNIGSMANN K, KOLOSOV V. N, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PAGANO P, PANEBIANCO S, PANZIERI D, PAUL S, PESARO G, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P., SCHILL C, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TESSAROTTO F, TEUFEL A, WOLLNY H (2008). The COMPASS RICH-1 detector upgrade. THE EUROPEAN PHYSICAL JOURNAL. SPECIAL TOPICS, vol. 162; p. 251-257, ISSN: 1951-6355, doi: 10.1140/epjst/e2008-00800-2

ALEKSEEV M, ALEXAKHIN V. YU, ALEXANDROV YU, ALEXEEV G. D, AMOROSO A, ARBUZOV A, BADELEK B, BALESTRA F, BALL J, BARTH J, BAUM G, BEDFER Y, BERNET C, BERTINI R, BETTINELLI M, BIRSA R, BISPLINGHOFF J, BORDALO P, BRADAMANTE F, BRAVAR A, BRESSAN A, BRONA G, BURTIN E, BUSSA M. P, CHAPIRO A, CHIOSSO M, CICUTTIN A, COLANTONI M, COSTA S, CRESPO M. L, DALLA TORRE S, DAFNI T, DAS S, DASGUPTA S. S, DE MASI R, DEDEK N, DENISOV O. YU, DHARA L, DIAZ V, DINKELBACH A. M, DONSKOV S. V, DOROFEEV V. A, DOSHITA N, DUIC V, DÜNNWEBER W, EVERSHEIM P. D, EYRICH W, FAESSLER M, FALALEEV V, FERRERO A, FERRERO L, FINGER M, FINGER M. JR, FISCHER H, FRANCO C, FRANZ J, FRIEDRICH J. M, FROLOV V, GARFAGNINI R, GAUTHERON F, GAVRICHTCHOUK O. P, GAZDA R, GERASSIMOV S, GEYER R, GIORGI M, GOBBO B, GOERTZ S, GORIN A. M, GRABMÜLLER S, GRAJEK O. A, GRASSO A, GRUBE B, GUSHTERSKI R, GUSKOV A, HAAS F, HANNAPPEL J, VON HARRACH D, HASEGAWA T, HECKMANN J, HEDICKE S, HEINSIUS F. H, HERMANN R, HESS C, HINTERBERGER F, VON HODENBERG M, HORIKAWA N, HORIKAWA S, D'HOSE N, ILGNER C, IOUKAEV A. I, ISHIMOTO S, IVANOV O, IVANSHIN YU, IWATA T, JAHN R, JANATA A, JASINSKI P, JOOSTEN R, JOURAVLEV N. I, KABUSS E, KANG D, KETZER B, KHAUSTOV G. V, KHOKHLOV YU. A, KISSELEV YU, KLEIN F, KLIMASZEWSKI K, KOBLITZ S, KOIVUNIEMI J. H, KOLOSOV V. N, KOMISSAROV E. V, KONDO K, KÖNIGSMANN K, KONOROV I, KONSTANTINOV V. F, KORENTCHENKO A. S, KORZENEV A, KOTZINIAN A. M, KOUTCHINSKI N. A, KOUZNETSOV O, KRAL A, KRAVCHUK N. P, KROUMCHTEIN Z. V, KUHN R, KUNNE F, KUREK K, LADYGIN M. E, LAMANNA M, LE GOFF J. M, LEDNEV A. A, LEHMANN A, LEVORATO S, LICHTENSTADT J, LISKA T, LUDWIG I, MAGGIORA A, MAGGIORA M, MAGNON A, MALLOT G. K, MANN A, MARCHAND C, MARRONCLE J, MARTIN A., MARZEC J, MASSMANN F, MATSUDA T, MAXIMOV A. N, MEYER W, MIELECH A, MIKHAILOV YU. V, MOINESTER M. A, MUTTER A, NAGAYTSEV A, NAGEL T, NÄHLE O, NASSALSKI J, NELIBA S, NERLING F, NEUBERT S, NEYRET D. P, NIKOLAENKO V. I, NIKOLAEV K, OLSHEVSKY A. G, OSTRICK M, PADEE A, PAGANO P, PANEBIANCO ... (2008). The polarised valence quark distribution from semi-inclusive DIS. PHYSICS LETTERS. SECTION B, vol. 660; p. 458-465, ISSN: 0370-2693, doi: 10.1016/j.physletb.2007.12.056

ABBON P, ALEXEEV M, ANGERER H, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A., CHIOSSO M, CILIBERTI P, COLANTON M, DAFNI T, DALLA TORRE S, DELAGNES E, DENISOV O, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FERRERO A, FINGER M, FINGER JR. M, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F.H, JOOSTEN R, KETZER B, KOLOSOV V.N, KONIGSMANN K, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NAHLE O, NERLING F, NEYRET D, PANZIERI D, PAUL S, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHOENMEIER P, SCHRODER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TAKEKAWA S, TESSAROTTO F, TEUFEL A, WOLLNY H (2008). READ-OUT ELECTRONICS FOR FAST PHOTON DETECTION WITH COMPASS RICH. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 587; p. 371-387, ISSN: 0168-9002

ABBON P, ALEKSEEV M, ANGERER H, APOLLONIO M, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, BUSSO L, CHIOSSO M, CILIBERTI P, COLANTONI M. L, COSTA S, DAFNI T, DALLA TORRE S, DELAGNES E, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FASO D, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, VON HARRACH D, HEINSIUS F. H, JOOSTEN R, KETZER B, KOLOSOV V. N, KÖNIGSMANN K, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S, MAGGIORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PAGANO P, PANEBIANCO S, PANZIERI D, PAUL S, PESARO G, PIZZOLOTTO C, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TESSAROTTO F, TEUFEL A, WOLLNY H (2007). The fast photon detection system of COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 581; p. 419-422, ISSN: 0168-9002, doi: 10.1016/j.nima.2007.08.018

ALEKSEEV M, ALEXAKHIN V YU, ALEXANDROV YU, ALEXEEV G D, AMOROSO A, ARBUZOV A, BADELEK B, BALESTRA F, BALL J, BARTH J, BAUM G, BEDFER Y, BERNET C, BERTINI R, BETTINELLI M, BIRSA R, BISPLINGHOFF J, BORDALO P, BRADAMANTE F, BRAVAR A, BRESSAN A, BRONA G, BURTIN E, BUSSA M P, CHAPIRO A, CHIOSSO M, CICUTTIN A, COLANTONI M, COSTA S, CRESPO M L, DALLA TORRE S, DAFNI T, DAS S, DAS-GUPTA S S, DE MASI R, DEDEK N, DENISOV O YU, DHARA L, DÍAZ V, DINKELBACH A M, DONSKOV S V, DOROFEEV V A, DOSHITA N, DUIC V, DÜNNWEBER W, EVERSHEIM P D, EYRICH W, FAESSLER M, FALALEEV V, FERRERO A, FERRERO L, FINGER M, FINGERJR M, FISCHER H, FRANCO C, FRANZ J, FRIEDRICH J M, FROLOV V, GARFAGNINI R, GAUTHERON F, GAVRICHTCHOUK O P, GAZDA R, GERASSIMOV S, GEYER R, GIORGI M, GOBBO B, GÖRTZ S, GORIN A M, GRABMULLER S, GRAJEK O A, GRASSO A, GRUBE B, GUSHTERSKI R, GUSKOV A, HAAS F, HANNAPPEL J, VON D, HASEGAWA T, HECKMANN J, HEDICKE S, HEINSIUS F H, HERMANN R, HESS C, HINTERBERGER F, VON HODENBERG M, HORIKAWA N, HORIKAWA S, D'HOSE N, ILGNER C, IOUKAEV A I, ISHIMOTO S, IVANOV O, IVANSHIN YU, IWATA T, JAHN R, JANATA A, JASINSKI P, JOOSTEN R, JOURAVLEV N I, KABUSS E, KANG D, KETZER B, KHAUSTOV G V, KHOKHLOV YU A, KISSELEV YU, KLEIN F, KLIMASZEWSKI K, KOBLITZ S, KOIVUNIEMI J H, KOLOSOV V N, KOMISSAROV E V, KONDO K, KÖNIGSMANN K C, KONOROV I, KONSTANTINOV V F, KORENTCHENKO A S, KORZENEV A, KOTZINIAN A M, KOUTCHINSKI N A, KUZNETSOV O, KRAL A, KRAVCHUK N P, KROUMCHTEIN Z V, KÜHN R, KUNNE F, KUREK K, LADYGIN M E, LAMANNA M, LE GOFF J M, LEDNEV A A, LEHMANN A, LEVORATO S, LICHTENSTADT J, LISKA T, LUDWIG I, MAGGIORA A, MAGGIORA M, MAGNON A, MALLOT G K, MANN A, MARCHAND C, MARRONCLE J, MARTIN A., MARZEC J, MASSMANN F, MATSUDA T, MAKSIMOV A N, MIELECH A, MIKHAILOV YU V, MOINESTER M A, MUTTER A, NAGAYTSEV A, NAGEL T, NAHLE O, NASSALSKI J, NELIBA S, NERLING F, NEUBERT S, NEYRET D P, NIKOLAENKO V I, NIKOLAEV K, OLSHEVSKII A G, OSTRICK M, PADEE A, PAGANO P, PANEBIANCO S, PANKNIN R, PANZIERI D, PAUL S, PAWLUKIEWICZ-KAMINSK... (2009). Collins and Sivers asymmetries for pions and kaons in muon-deuteron DIS. PHYSICS LETTERS. SECTION B, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.01.060

ABBON P, ALEKSEEV M, ANGERER H, APOLLONIO M, BIRSA R, BORDALO P, BRADAMANTE F, BRESSAN A, BUSSO L, CHIOSSO M, CILIBERTI P, COLANTONI M. L, COSTA S, DALLA TORRE S, DAFNI T, DELAGNES E, DESCHAMPS H, DIAZ V, DIBIASE N, DUIC V, EYRICH W, FASO D, FERRERO A, FINGER M, FINGER M. JR, FISCHER H, GERASSIMOV S, GIORGI M, GOBBO B, HAGEMANN R, VON HARRACH D, HEINSIUS F. H, HORIKAWA S, JOOSTEN R, KETZER B, KÖNIGSMANN K, KOLOSOV V. N, KONOROV I, KRAMER D, KUNNE F, LEHMANN A, LEVORATO S., MAGGI, ORA A, MAGNON A, MANN A, MARTIN A., MENON G, MUTTER A, NÄHLE O, NERLING F, NEYRET D, PAGANO P, PANEBIANCO S, PANZIERI D, PAUL S, PESARO G, POLAK J, REBOURGEARD P, ROBINET F, ROCCO E, SCHIAVON P, SCHILL C, SCHRÖDER W, SILVA L, SLUNECKA M, SOZZI F, STEIGER L, SULC M, SVEC M, TESSAROTTO F, TEUFEL A, WOLLNY H (2007). Fast photon detection for particle identification with COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 580(2); p. 906-909, ISSN: 0168-9002, doi: 10.1016/J.NIMA.2007.06.081

M. Alekseev, V.Yu. Alexakhin, Yu. Alexandrov, G.D. Alexeev, A. Amoroso, A. Austregisilio, B. Badelek, F. Balestra, J. Ball, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, A. Bravar, A. Bressan, G. Brona, E. Burtin, M.P. Bussa, A. Chapiro, M. Chiosso, S.U. Chung, A. Cicuttin, M. Colantoni, M.L. Crespo, S. Dalla Torre, T. Dafni, S. Das, S.S. Dasgupta, O.Yu. Denisov, L. Dhara, V. Diaz, A.M. Dinkelbach, S.V. Donskov, N. Doshita, V. Duic, W. Dunnweber, A. Efremov, A. El Alaoui, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, M. Finger, M. Finger, H. Fischer, C. Franco, J.M. Friedrich, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, R. Gazda, S. Gerassimov, R. Geyer, M. Giorgi, B. Gobbo, S. Goertz, S. Grabmuller, O.A. Grajek, A. Grasso, B. Grube, R. Gushterski, A. Guskov, F. Haas, R. Hagemann, D. von Harrach, T. Hasegawa, J. Heckmann, F.H. Heinsius, R. Hermann, F. Herrmann, C. Hess, F. Hinterberger, N. Horikawa, Ch.

Hoppner, N. d'Hose, C. Ilgner, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, P. Jasinski, G. Jegou, R. Joosten, E. Kabuss, W. Kafer, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, J. Kiefer, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, E.V. Komissarov, K. Kondo, K. Konigsmann, R. Konopka, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, K. Kowalik, M. Kramer, A. Kral, Z.V. Kroumchtein, R. Kuhn, F. Kunne, K. Kurek, J.M. Le Goff, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, M. Maggiora, A. Magnon, G.K. Mallot, A. Mann, C. Marchand, J. Marroncle, MARTIN A., J. Marzec, F. Massmann, T. Matsuda, A.N. Maximov, W. Meyer, T. Michigami, Yu.V. Mikhailov, M.A. Moinester, A. Mutter, A. Nagaytsev, T. Nagel, J. Nassalski, S. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, B. Pawlukiewic... (2009). Measurement of the Longitudinal Spin Transfer to Lambda and Anti-Lambda Hyperons in Polarised Muon DIS . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 64; p. 171-179, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-009-1143-7

Barone V., Bradamante F., MARTIN A. (2010). Transverse-spin and transverse-momentum effects in high-energy processes. PROGRESS IN PARTICLE AND NUCLEAR PHYSICS; p. 267-333, ISSN: 0146-6410, doi: 10.1016/j.ppnp.2010.07.003

ALEKSEEV M. G., ALEXAKHIN V. YU., ALEXANDROV YU., ALEXEEV G. D., AMOROSO A., AUSTREGESILO A., BADEł, EK B., BALESTRA F., BALL J., BARTH J., BAUM G., BEDFER Y., BERNHARD J., BERTINI R., BETTINELLI M., BIRSA R., BISPLINGHOFF J., BORDALO P., BRADAMANTE F., BRAVAR A., BRESSAN A., BRONA G., BURTIN E., BUSSA M. P., CHAPIRO A., CHIOSSO M., CHUNG S. U., CICUTTIN A., COLANTONI M., CRESPO M. L., DALLA TORRE S., DAFNI T., DAS S., DASGUPTA S. S., DENISOV O. YU., DHARA L., DIAZ V., DINKELBACH A. M., DONSKOV S. V., DOSHITA N., DUIC V., DÜNNWEBER W., EFREMOV A., EL ALAOUI A., EVERSHEIM P. D., EYRICH W., FAESSLER M., FERRERO A., FINGER M., FINGER M. JR., FISCHER H., FRANCO C., FRIEDRICH J. M., GARFAGNINI R., GAUTHERON F., GAVRICHTCHOUK O. P., GAZDA R., GERASSIMOV S., GEYER R., GIORGI M., GOBBO B., GOERTZ S., GRABMÜLLER S., GRAJEK O. A., GRASSO A., GRUBE B., GUSHTERSKI R., GUSKOV A., HAAS F., VON HARRACH D., HASEGAWA T., HECKMANN J., HEINSIUS F. H., HERMANN R., HERRMANN F., HEß C., HINTERBERGER F., HORIKAWA N., HÖPPNER CH., D'HOSE N., ILGNER C., ISHIMOTO S., IVANOV O., IVANSHIN YU., IWATA T., JAHN R., JASINSKI P., JEGOU G., JOOSTEN R., KABUß E., KANG D., KETZER B., KHAUSTOV G. V., KHOKHLOV YU. A., KISSELEV YU., KLEIN F., KLIMASZEWSKI K., KOBLITZ S., KOIVUNIEMI J. H., KOLOSOV V. N., KOMISSAROV E. V., KONDO K., KÖNIGSMANN K., KONOPKA R., KONOROV I., KONSTANTINOV V. F., KORZENEV A., KOTZINIAN A. M., KOUZNETSOV O., KOWALIK K., KRÄMER M., KRAL A., KROUMCHTEIN Z. V., KUHN R., KUNNE F., KUREK K., LAUSER L., LE GOFF J. M., LEDNEV A. A., LEHMANN A., LEVORATO S., LICHTENSTADT J., LISKA T., MAGGIORA A., MAGGIORA M., MAGNON A., MALLOT G. K., MANN A., MARCHAND C., MARRONCLE J., MARTIN A., MARZEC J., MASSMANN F., MATSUDA T., MAXIMOV A. N., MEYER W., MICHIGAMI T., MIKHAILOV YU. V., MOINESTER M. A., MUTTER A., NAGAYTSEV A., NAGEL T., NASSALSKI J., NEGRINI T., NERLING F., NEUBERT S., NEYRET D., NIKOLAENKO V. I., OLSHEVSKY A. G., OSTRICK M., PADEE A., PANKNIN R., PANZIERI D., PARSAMYAN B., PAUL S., PAWLUKIEWICZ-KAMINSKA B., PEREVALOVA E., PESARO G., PESHEKHONOV D. V., PIRAGINO G., PLATCHKOV S., POCHODZALLA J., POLAK J., POLYAKOV V. A., PONTECORVO G., PRETZ J... (2010). Observation of a J(PC)=1(-+) Exotic Resonance in Diffractive Dissociation of 190 GeV/c pi(-) into pi(-)pi(-)pi(+). PHYSICAL REVIEW LETTERS, vol. 104; p. 241803--, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.104.241803

M.G. Alekseev, V.Yu. Alexakhin, Yu. Alexandrovo, G.D. Alexeev, A. Amoroso, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamantey, A. Bravar, A. Bressan, G. Brona, E. Burtin, M.P. Bussa, D. Chaberny, M. Chiosso, S.U. Chung, A. Cicuttin, M. Colantoni, M.L. Crespo, S. Dalla Torre, S. Das, S.S. Dasgupta, O.Yu. Denisov, L. Dhara, V. Diaz, S.V. Donskov, N. Doshita, V. Duic, W. Dunnweber, A. Efremov, A. El Alaoui, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger Jr., H. Fischeri, C. Franco, J.M. Friedrich, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, R. Gazda, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmuller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, F. Haas, D. von Harrach, T. Hasegawa, F.H. Heinsius, F. Herrmann, C. Hes, F. Hinterberger, N. Horikawa, Ch. Hoppner, N. d'Hose, C. Ilgnerj, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, P. Jasinski, G. Jegou, R. Joosten, E. Kabus, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, K. Kondo, K. Konigsmann, R. Konopka, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, K. Kowalik, M. Kramer, A. Kral, Z.V. Kroumchtein, R. Kuhn, F. Kunne, K. Kurek, L. Lauseri, J.M. Le Goff, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, M. Maggiora, A. Magnon, N. Makke, G.K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, F. Massmann, T. Matsuda, W. Meyer, T. Michigami, Yu.V. Mikhailov, M.A. Moinester, A. Mutteri, A. Nagaytsev, T. Nagel, J. Nassalski, T. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, A.S. Nunes, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, B. Pawlukiewicz-Kaminska, E. Perevalova, G. Pesaro, D.V. Peshekhonov, G. Piragino, S. Platchkov, J. Poch... (2010). Quark helicity distributions from longitudinal spin asymmetries in muon–proton

and muon–deuteron scattering. PHYSICS LETTERS. SECTION B, vol. 693; p. 227-235, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.034

M. Alexeev, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, G. Croci, M.L. Colantoni, S. Dalla Torre, S. Duarte Pinto, O. Denisov, V. Diaz, A. Ferrero, M. Finger, M. Finger Jr., H. Fischer, G. Giacomini, M. Giorgi, B. Gobbo, F.H. Heinsius, F. Herrmann, V. Jahodova, K. Königsmann, L. Lauser, S. Levorato, A. Maggiora, MARTIN A., G. Menon, F. Nerling, D. Panzieri, G. Pesaro, J. Polak, E. Rocco, L. Ropeleswki, F. Sauli, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopferer, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarotto, H. Wollny (2010). THGEM based photon detector for Cherenkov imaging applications . NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 62; p. 396-397, ISSN: 0168-9002, doi: 10.1016/j.nima.2009.08.087

Alekseev M., Alexakhin VY., Alexandrov Y., Alexeev GD., Amoroso A., Austregesilo A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa MP., Chapiro A., Chiosso M., Chung SU., Cicuttin A., Colantoni M., Crespo ML., Torre SD., Dafni T., Das S., Dasgupta SS., Denisov OY., Dhara L., Diaz V., Dinkelbach AM., Donskov SV., Doshita N., Duic V., Dunnweber W., Efremov A., El Alaoui A., Eversheim PD., Eyrich W., Faessler M., Ferrero A., Finger M., Finger M., Fischer H., Franco C., Friedrich JM., Garfagnini R., Gautheron F., Gavrichtchouk OP., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gobbo B., Goertz S., Grabmuller S., Grajek OA., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., Hagemann R., von Harrach D., Hasegawa T., Heckmann J., Heinsius FH., Hermann R., Herrmann F., Hess C., Hinterberger F., Horikawa N., Hoppner C., d'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Y., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuss E., Kafer W., Kang D., Ketzer B., Khaustov GV., Khokhlov YA., Kiefer J., Kisselev Y., Klein F., Klimaszewski K., Koblitz S., Koivuniemi JH., Kolosov VN., Komissarov EV., Kondo K., Konigsmann K., Konopka R., Konorov I., Konstantinov VF., Korzenev A., Kotzinian AM., Kouznetsov O., Kowalik K., Kramer M., Kral A., Kroumchtein ZV., Kuhn R., Kunne F., Kurek K., Le Goff JM., Lednev AA., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot GK., Mann A., Marchand C., Marroncle J., MARTIN A., Marzec J., Massmann F., Matsuda T., Maximov AN., Meyer W., Michigami T., Mikhailov YV., Moinester MA., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini S., Nerling F., Neubert S., Neyret D., Nikolaenko VI., Olshevsky AG., Ostrick M., Padee A., Panknin R., Panzieri D., Parsamyan B., Paul S., Pawlukiewicz-Kaminska B., Perevalova E., Pesaro G., Peshek... (2009). Flavour separation of helicity distributions from deep inelastic

muon–deuteron scattering. PHYSICS LETTERS. SECTION B, vol. 680/2009; p. 217-224, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.08.065

Alekseev M., Alexakhin VY., Alexandrov Y., Alexeev GD., Amoroso A., Austregisilio A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa MP., Chapiro A., Chiosso M., Chung SU., Cicuttin A., Colantoni M., Crespo ML., Dalla Torre S., Dafni T., Das S., Dasgupta SS., Denisov OY., Dhara L., Diaz V., Dinkelbach AM., Donskov SV., Doshita N., Duic V., Dunnweber W., Efremov A., El Alaoui A., Eversheim PD., Eyrich W., Faessler M., Ferrero A., Finger M., Finger M., Fischer H., Franco C., Friedrich JM., Garfagnini R., Gautheron F., Gavrichtchouk OP., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gobbo B., Goertz S., Grabmuller S., Grajek OA., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., Hagemann R., von Harrach D., Hasegawa T., Heckmann J., Heinsius FH., Hermann R., Herrmann F., Hess C., Hinterberger F., von Hodenberg M., Horikawa N., Hoppner C., d'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Y., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuss E., Kafer W., Kang D., Ketzer B., Khaustov GV., Khokhlov YA., Kiefer J., Kisselev Y., Klein F., Klimaszewski K., Koblitz S., Koivuniemi JH., Kolosov VN., Komissarov EV., Kondo K., Konigsmann K., Konorov I., Konstantinov VF., Korzenev A., Kotzinian AM., Kouznetsov O., Kowalik K., Kramer M., Kral A., Kroumchtein ZV., Kuhn R., Kunne F., Kurek K., Le Goff JM., Lednev AA., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot GK., Mann A., Marchand C., Marroncle J., MARTIN A., Marzec J., Massmann F., Matsuda T., Maximov AN., Meyer W., Michigami T., Mikhailov YV., Moinester MA., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini S., Nerling F., Neubert S., Neyret D., Nikolaenko VI., Olshevsky AG., Ostrick M., Padee A., Panknin R., Panebianco S., Panzieri D., Parsamyan B., Paul S., Pawlukiewicz-Kaminska B., Perev... (2009). Gluon polarisation in the nucleon and longitudinal double spin asymmetries from open charm muoproduction. PHYSICS LETTERS. SECTION B, vol. 676; p. 31-38, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.04.059

M. Alexeev, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, G. Croci, M.L. Colantoni, S. Dalla Torre, S. Duarte Pinto, O. Denisov, V. Diaz, V. Duic, A. Ferrero, M. Finger, M. Finger Charles, H. Fischer, G. Giacomini, M. Giorgi, B. Gobbo, F.H. Heinsius, F. Herrmann, K. Konigsmann, D. Kramer, L. Lauser, S. Levorato, A. Maggiora, MARTIN A., G. Menon, A. Mutter, F. Nerling, D. Panzieri, Alessandria, G. Pesaro, J. Polak, E. Rocco, L. Ropelewski, F. Sauli, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopferer, M. Slunecka Charles, F. Sozzi, L. Steiger Charles, M. Sulc, S. Takekawa, F. Tessarotto, H. Wollny (2010). Micropattern gaseous photon detectors for Cherenkov imaging counters. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 623; p. 129-132, ISSN: 0168-9002

Alekseev M. G., Alexakhin V. Yu., Alexandrov Yu., Alexeev G. D., Amoroso A., Austregesilo A., Badelek B., Balestra F., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa M. P., Chaberny D., Chiosso M., Chung S. U., Cicuttin A., Colantoni M., Crespo M. L., Dalla Torre S., Das S., Dasgupta S. S., Denisov O. Yu., Dhara L., Diaz V., Donskov S. V., Doshita N., Duic V., Dünnweber W., Efremov A., El Alaoui A., Eversheim P. D., Eyrich W., Faessler M., Ferrero A., Filin A., Finger M., Finger M., Fischer H., Franco C., Friedrich J. M., Garfagnini R., Gautheron F., Gavrichtchouk O. P., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gnesi I., Gobbo B., Goertz S., Grabmüller S., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., von Harrach D., Hasegawa T., Heinsius F. H., Herrmann F., Heß C., Hinterberger F., Horikawa N., Höppner Ch., D'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Yu., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuß E., Kang D., Ketzer B., Khaustov G. V., Khokhlov Yu. A., Kisselev Yu., Klein F., Klimaszewski K., Koblitz S., Koivuniemi J. H., Kolosov V. N., Kondo K., Königsmann K., Konopka R., Konorov I., Konstantinov V. F., Korzenev A., Kotzinian A. M., Kouznetsov O., Kowalik K., Krämer M., Kral A., Kroumchtein Z. V., Kuhn R., Kunne F., Kurek K., Lauser L., Le Goff J. M., Lednev A. A., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot G. K., Mann A., Marchand C., MARTIN A., Marzec J., Massmann F., Matsuda T., Meyer W., Michigami T., Mikhailov Yu. V., Moinester M. A., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini T., Nerling F., Neubert S., Neyret D., Nikolaenko V. I., Nunes A. S., Olshevsky A. G., Ostrick M., Padee A., Panknin R., Panzieri D., Parsamyan B., Paul S., Pawlukiewicz-Kaminska B., Perevalova E., Pesaro G., Peshekhonov D. V., Piragino G., Platchkov S.... (2010). Azimuthal asymmetries of charged hadrons produced by high-energy muons scattered off longitudinally polarised deuterons. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 70; p. 39-49, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1461-9

Alelseev M., Alexakhin VY., Alexandrov Y., Alexeev GD., Amoroso A., Arbuzov A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernet C., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa MP., Chapiro A., Chiosso M., Cicuttin A., Colantoni M., Costa S., Crespo ML., Torre SD., Dafni T., Das S., Dasgupta SS., De Masi R., Dedek N., Denisov OY., Dhara L., Diaz V., Dinkelbach AM., Donskov SV., Dorofeev VA., Doshita N., Duic V., Dunnweber W., Efremov AV., Eversheim PD., Eyrich W., Faessler M., Falaleev V., Ferrero A., Ferrero L., Finger M., Finger M., Fischer H., Franco C., Franz J., Friedrich JM., Frolov V., Garfagnini R., Gautheron F., Gavrichtchouk OR., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gobbo B., Goertz S., Gorin AM., Grabmuller S., Grajek OA., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., Hannappel J., von Harrach D., Hasegawa T., Heckmann J., Hedicke S., Heinsius FH., Hermann R., Hess C., Hinterberger F., von Hodenberg M., Horikawa N., Horikawa S., d'Hose N., Ilgner C., Loukaev AI., Ishimoto S., Ivanov O., Ivanshin Y., Iwata T., Jahn R., Janata A., Jasinski P., Jouravlev NI., Kabuss E., Kang D., Ketzer B., Khaustov GV., Khokhlov YA., Kisselev Y., Klein F., Klimaszewski K., Koblitz S., Koivuniemi JH., Kolosov VN., Komissarov EV., Kondo K., Konigsmann K., Konorov I., Konstantinov VF., Korentchenko AS., Korzenev A., Kotzinian AM., Koutchinski NA., Kouznetsov O., Kral A., Kravchuk NP., Kroumchtein ZV., Kuhn R., Kunne F., Kurek K., Ladygin ME., Lamanna M., Le Goff JM., Lednev AA., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Ludwig I., Maggiora A., Maggiora M., Magnon A., Mallot GK., Mann A., Marchand C., Marroncle J., MARTIN A., Marzec J., Massmann F., Matsuda T., Maximov AN., Meyer W., Mielech A., Mikhailov YV., Moinester MA., Mutter A., Nagaytsev A., Nagel T., Nahle O., Nassalski J., Neliba S., Nerling F., Neubert S., Neyret DP., Nikolaenko VI.... (2009). Collins and Sivers asymmetries for pions and kaons in muon-deuteron DIS COMPASS Collaboration. PHYSICS LETTERS. SECTION B, vol. 673/2009; p. 127-135, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.01.060

Alekseev M. G., Alexakhin V. Yu., Alexandrov Yu., Alexeev G. D., Amoroso A., Austregesilo A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa M. P., Chapiro A., Chiosso M., Chung S. U., Cicuttin A., Colantoni M., Crespo M. L., Dalla Torre S., Dafni T., Das S., Dasgupta S. S., Denisov O. Yu., Dhara L., Diaz V., Dinkelbach A. M., Donskov S. V., Doshita N., Duic V., Dünnweber W., Efremov A., El Alaoui A., Eversheim P. D., Eyrich W., Faessler M., Ferrero A., Finger M., Finger M. Jr., Fischer H., Franco C., Friedrich J. M., Garfagnini R., Gautheron F., Gavrichtchouk O. P., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gobbo B., Goertz S., Grabmüller S., Grajek O. A., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., von Harrach D., Hasegawa T., Heckmann J., Heinsius F. H., Hermann R., Herrmann F., Heß C., Hinterberger F., Horikawa N., Höppner Ch., D'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Yu., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuß E., Kang D., Ketzer B., Khaustov G. V., Khokhlov Yu. A., Kisselev Yu., Klein F., Klimaszewski K., Koblitz S., Koivuniemi J. H., Kolosov V. N., Komissarov E. V., Kondo K., Königsmann K., Konopka R., Konorov I., Konstantinov V. F., Korzenev A., Kotzinian A. M., Kouznetsov O., Kowalik K., Krämer M., Kral A., Kroumchtein Z. V., Kuhn R., Kunne F., Kurek K., Lauser L., Le Goff J. M., Lednev A. A., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot G. K., Mann A., Marchand C., MARTIN A., Marzec J., Massmann F., Matsuda T., Maximov A. N., Meyer W., Michigami T., Mikhailov Yu. V., Moinester M. A., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini T., Nerling F., Neubert S., Neyret D., Nikolaenko V. I., Olshevsky A. G., Ostrick M., Padee A., Panknin R., Panzieri D., Parsamyan B., Paul S., Paw... (2010). Observation of a J(PC)=1(-+) Exotic Resonance in Diffractive Dissociation of 190 GeV/c pi(-) into pi(-)pi(-)pi(+). PHYSICAL REVIEW LETTERS, vol. 104; p. 241803--, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.104.241803

Alekseev M. G., Alexakhin V. Yu., Alexandrov Yu., Alexeev G. D., Amoroso A., Austregesilo A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa M. P., Chaberny D., Chiosso M., Chung S. U., Cicuttin A., Colantoni M., Crespo M. L., Torre S. Dalla, Das S., Dasgupta S. S., Denisov O. Yu., Dhara L., Diaz V., Donskov S. V., Doshita N., Duic V., Dünnweber W., Efremov A., El Alaoui A., Elia C., Eversheim P. D., Eyrich W., Faessler M., Ferrero A., Filin A., Finger M., Finger M., Fischer H., Franco C., Friedrich J. M., Garfagnini R., Gautheron F., Gavrichtchouk O. P., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gnesi I., Gobbo B., Goertz S., Grabmüller S., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., von Harrach D., Hasegawa T., Heinsius F. H., Hermann R., Herrmann F., Heß C., Hinterberger F., Horikawa N., Höppner Ch., D'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Yu., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuß E., Käfer W., Kang D., Ketzer B., Khaustov G. V., Khokhlov Yu. A., Kisselev Yu., Klein F., Klimaszewski K., Koblitz S., Koivuniemi J. H., Kolosov V. N., Kondo K., Königsmann K., Konopka R., Konorov I., Konstantinov V. F., Korzenev A., Kotzinian A. M., Kouznetsov O., Kowalik K., Krämer M., Kral A., Kroumchtein Z. V., Kuhn R., Kunne F., Kurek K., Lauser L., Le Goff J. M., Lednev A. A., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot G. K., Mann A., Marchand C., MARTIN A., Marzec J., Massmann F., Matsuda T., Meyer W., Michigami T., Mikhailov Yu. V., Moinester M. A., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini T., Nerling F., Neubert S., Neyret D., Nikolaenko V. I., Olshevsky A. G., Ostrick M., Padee A., Panknin R., Panzieri D., Parsamyan B., Paul S., Pawlukiewicz-Kaminska B., Perevalova E., Pesaro G., Pesh... (2010). Measurement of the Collins and Sivers asymmetries on transversely polarised protons. PHYSICS LETTERS. SECTION B, vol. 692; p. 240-246, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.001

Alekseev M. G., Alexakhin V. Yu., Alexandrov Yu., Alexeev G. D., Amoroso A., Austregesilo A., Badelek B., Balestra F., Ball J., Barth J., Baum G., Bedfer Y., Bernhard J., Bertini R., Bettinelli M., Birsa R., Bisplinghoff J., Bordalo P., Bradamante F., Bravar A., Bressan A., Brona G., Burtin E., Bussa M. P., Chaberny D., Cotic D., Chiosso M., Chung S. U., Cicuttin A., Colantoni M., Crespo M. L., Torre S. Dalla, Das S., Dasgupta S. S., Denisov O. Yu., Dhara L., Diaz V., Donskov S. V., Doshita N., Duic V., Dünnweber W., Efremov A., El Alaoui A., Eversheim P. D., Eyrich W., Faessler M., Ferrero A., Filin A., Finger M., Finger M., Fischer H., Franco C., Friedrich J. M., Garfagnini R., Gautheron F., Gavrichtchouk O. P., Gazda R., Gerassimov S., Geyer R., Giorgi M., Gnesi I., Gobbo B., Goertz S., Grabmüller S., Grasso A., Grube B., Gushterski R., Guskov A., Haas F., von Harrach D., Hasegawa T., Heinsius F. H., Hermann R., Herrmann F., Heß C., Hinterberger F., Horikawa N., Höppner Ch., D'Hose N., Ilgner C., Ishimoto S., Ivanov O., Ivanshin Yu., Iwata T., Jahn R., Jasinski P., Jegou G., Joosten R., Kabuß E., Käfer W., Kang D., Ketzer B., Khaustov G. V., Khokhlov Yu. A., Kisselev Yu., Klein F., Klimaszewski K., Koblitz S., Koivuniemi J. H., Kolosov V. N., Kondo K., Königsmann K., Konopka R., Konorov I., Konstantinov V. F., Korzenev A., Kotzinian A. M., Kouznetsov O., Kowalik K., Krämer M., Kral A., Kroumchtein Z. V., Kuhn R., Kunne F., Kurek K., Lauser L., Le Goff J. M., Lednev A. A., Lehmann A., Levorato S., Lichtenstadt J., Liska T., Maggiora A., Maggiora M., Magnon A., Mallot G. K., Mann A., Marchand C., Marroncle J., MARTIN A., Marzec J., Massmann F., Matsuda T., Meyer W., Michigami T., Mikhailov Yu. V., Moinester M. A., Mutter A., Nagaytsev A., Nagel T., Nassalski J., Negrini T., Nerling F., Neubert S., Neyret D., Nikolaenko V. I., Nunes A. S., Olshevsky A. G., Ostrick M., Padee A., Panknin R., Panzieri D., Parsamyan B., Paul S., Pawlukiewicz-Kaminska B., Perevalova E., ... (2010). The spin-dependent structure function of the proton g(1)(p) and a test of the Bjorken sum rule. PHYSICS LETTERS. SECTION B, vol. 690; p. 466-472, ISSN: 0370-2693

M. Alexeev, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, S. Dalla Torre, O. Denisov, V. Duic, A. Ferrero, M. Finger, M. Finger Jr., M. Giorgi, B. Gobbo, S. Levorato, A. Maggiora, MARTIN A., G. Menon, D. Panzieri a, G. Pesaro, J. Polak, E. Rocco, G. Sbrizzai, P. Schiavon, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarotto (2011). Mirror alignment control for COMPASS RICH-1 detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 639; p. 219-221, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.10.149

M. Alexeev, R.Birsa, F.Bradamante, A.Bressan, M.Chiosso, P.Ciliberti, S. Dalla Torre, O.Denisov, V. Duic, A.Ferrero, M.Finger, M.FingerJr, H.Fischer, M.Giorgi, B.Gobbo, F.H. Heinsius, F. Herrmann, K.Koenigsmann, D. Kramer, L. Lauser, S.Levorato, A.Maggiora, MARTIN A., G. Menon, A.Mutter, F.Nerling, D.Panzieri, G.Pesaro, J.Polak, E.Rocco, G.Sbrizzai, P.Schiavon, C. Schill, S.Schopferer, M.Slunecka, F.Sozzi, L.Steiger, M.Sulc, S.Takekawa, F. Tessarotto, H.Wollny (2011). Progress towards a THGEM-based detector of single photons. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 639; p. 130-133, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.10.117

P. Abbon, M.Alexeev, H.Angerer, G.Baum, R.Birsa, P.Bordalo, F. Bradamante, A.Bressan, M. Chiosso, P.Ciliberti, M.Colantoni, T.Dafni, S.DallaTorre, E.Delagnes, O.Denisov, H. Deschamps, N.Dibiase, V.Duic, W.Eyrich, A.Ferrero, M.Finger, M.FingerJr, H.Fischer, C. Franco, S.Gerassimov, M.Giorgi, B.Gobbo, R.Hagemann, D.vonHarrach, F.H.Heinsius, R. Joosten, B.Ketzer, V.N.Kolosov, K.Koenigsmann, I.Konorov, D.Kramer, F.Kunne, A.Lehmann, S. Levorato, A.Maggiora, A.Magnon, A.Mann, MARTIN A., G.Menon, A.Mutter, O.Naehle, F. Nerling, D.Neyret, D.Panzieri, S.Paul, G.Pesaro, C.Pizzolotto, J.Polak, P.Rebourgeard, F. Robinet, E.Rocco, G.Sbrizzai, P.Schiavon, C.Schill, P.Schoenmeier, W.Schroeder, M. Slunecka, F.Sozzi, L.Steiger, M.Sulc, M.Svec, S.Takekawa, F.Tessarotto, A.Teufel, H. Wollny (2011).

The experience of building and operating COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 639; p. 15-19, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.10.102

P. Abbon, M.Alexeev, H.Angerer, G.Baum, R.Birsa, P.Bordalo, F. Bradamante, A.Bressan, M. Chiosso, P.Ciliberti, M.Colantoni, T.Dafni, S.DallaTorre, E.Delagnes, O.Denisov, H. Deschamps, N.Dibiase, V.Duic, W.Eyrich, A.Ferrero, M.Finger, M.FingerJr, H.Fischer, C. Franco, S.Gerassimov, M.Giorgi, B.Gobbo, R.Hagemann, D.vonHarrach, F.H.Heinsius, R. Joosten, B.Ketzer, V.N.Kolosov, K.Koenigsmann, I.Konorov, D.Kramer, F.Kunne, A.Lehmann, S. Levorato, A.Maggiora, A.Magnon, A.Mann, MARTIN A., G.Menon, A.Mutter, O.Naehle, F. Nerling, D.Neyret, D.Panzieri, S.Paul, G.Pesaro, C.Pizzolotto, J.Polak, P.Rebourgeard, F. Robinet, E.Rocco, G.Sbrizzai, P.Schiavon, C.Schill, P.Schoenmeier, W.Schroeder, M. Slunecka, F.Sozzi, L.Steiger, M.Sulc, M.Svec, S.Takekawa, F.Tessarotto, A.Teufel, H. Wollny (2011). Particle identification with COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 631; p. 26-39, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.11.106

P. Abbon, M.Alexeev, H.Angerer, R.Birsa, P.Bordalo, F.Bradamante, A. Bressan, M.Chiosso, P. Ciliberti, M.Colantoni, T.Dafni, S.DallaTorre, E. Delagnes, O.Denisov, H.Deschamps, V. Diaz, N.Dibiase, V.Duic, W.Eyrich, A.Ferrero, M.Finger, M.FingerJr., H.Fischer, S. Gerassimov, M.Giorgi, B.Gobbo, R.Hagemann, D.vonHarrach, F.H.Heinsius, R.Joosten, B. Ketzer, V.N.Kolosov, K.Koenigsmann, I.Konorov, D.Kramer, F.Kunne, A.Lehmann, S. Levorato, A.Maggiora, A.Magnon, A.Mann, MARTIN A., G.Menon, A.Mutter, O.Naehle, F. Nerling, D.Neyret, D.Panzieri, S.Paul, G.Pesaro, C.Pizzolotto, J.Polak, P.Rebourgeard, F. Robinet, E.Rocco, P.Schiavon, C.Schill, P.Schoenmeier, W.Schroeder, L.Silva, M.Slunecka, F. Sozzi, L.Steiger, M.Sulc, M.Svec, S.Takekawa, F.Tessarotto, A.Teufel, H.Wollny (2010). Design and construction of the fast photon detection system for COMPASS RICH-1. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 616; p. 21-37, ISSN: 0168-9002, doi: 10.1016/j.nima.2010.02.069

M. Alexeev, M. Alfonsi, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, G. Croci, M.L. Colantoni, S. Dalla Torre, O. Denisov, S. Duarte

Pinto, V. Duic, A. Ferrero, M. Finger, M. Finger Jr, H. Fischer, G. Giacomini, M. Giorgi, B. Gobbo, R. Hagemann, F.H. Heinsius, F. Herrmann, V. Jahodova, K. K¨onigsmann, D. Kramer, L. Lauser, S. Levorato, A. Maggiora, MARTIN A., G. Menon, A. Mutter, F. Nerling, D. Panzieri, G. Pesaro, J. Polak, E. Rocco, L. Ropeleswki, F. Sauli, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopferer, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarottoc, H. Wollny (2010). Development of THGEM-based photon detectors for Cherenkov Imaging Counters. JOURNAL OF INSTRUMENTATION, vol. 5/2010; p. -----, ISSN: 1748-0221, doi: 10.1088/1748-0221/5/03/P03009

S. Levorato, M. Alexeev, R. Birsa, F. Bradamante, A.Bressan, M. Chiosso, P. Ciliberti, S. Dalla Torre, O. Denisov, V. Duic, A. Ferrero, M. Finger, M. Finger Jr, H. Fischer, M. Giorgi, M. Gregori, B. Gobbo, F. H. Heinsius, F. Herrmann, K. Konigsmann, L. Lauser, A. Maggiora, MARTIN A., G. Menon, A. Mutter, F. Nerling, K. Novakova, D. Panzieri, G. Pesaro, J. Polak, E. Rocco, C. Santos, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopferer, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarotto and H. Wollny (2011). Single-photon detection with THGEM-based counters. IL NUOVO CIMENTO C, vol. Vol. 34 C, N. 6 / 2011; p. 52-56, ISSN: 2037-4909, doi: 10.1393/ncc/i2011-11045-2

M. Alekseev, M. Alfonsi, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, G. Croci, M. L. Colantoni, S. Dalla Torre, O. Denisov, V. Diaz, N. Dibiase, S. Duarte Pinto, V. Duic, A. Ferrero, M. Finger, M. Finger Jr, H. Fischer, G. Giacomini, M. Giorgi, B. Gobbo, R. Hagemann, F. H. Heinsius, F. Herrmann, K. Konigsmann, D. Kramer, L. Lauser, S. Levorato, A.Maggiora, MARTIN A., G. Menon, A. Mutter, F. Nerling, D. Panzieri, G. Pesaro, J. Polak, E. Rocco, L. Ropelewski, F. Sauli, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopfere, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarotto and H. Wollny (2009). Development of a THGEM-based photon detector for RICH applications. IL NUOVO CIMENTO C, vol. Vol.32 C, N. 3-4 / 2009; p. 419-423, ISSN: 2037-4909, doi: 10.1393/ncc/i2009-10500-y

P. Abbon, M. Alekseev, H. Angerer, R. Birsa, M. Bordalo, F. Bradamante, A. Bressan, L. Busso, M. Chiosso, P. Ciliberti, O. Cobanoglu, M. L. Colantoni, S. Dalla Torre, T. Dafni, E. Delagnes, H. Deshamps, V. Diaz, N. Dibiase, V. Duic, W. Eyrich, D. Faso, A. Ferrero, M. Finger, M. Finger Jr, H. Fischer, S. Gerassimov, M. Giorgi, B. Gobbo, R. Hagemann, D. von Harrach, F. H. Heinsius, R. Joosten, B. Ketzer, K. Konigsmann, V. N. Kolosov, I. Konorov, F. Kunne, A. Lehmann, S. Levorato, A. Maggiora, A. Magnon, A. Mann, MARTIN A., G. Mazza, G. Menon, A. Mutter, O. Nahle, F. Nerling, D. Neyret, S. Panebianco, D. Panzieri, S. Paul, G. Pesaro, J. Polak, D. Rebourgeard, F. Robinet, E. Rocco, P. Schiavon, C. Schill, W. Schroder, L. Silva, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, M. Svec, S. Takekawa, F. Tessarotto, A. Teufel and H. Wollny (2009). The upgrade project of the RICH-1 of the COMPASS Experiment. IL NUOVO CIMENTO C, vol. Vol. 32 C, N. 3-4 / 2009; p. 407-412, ISSN: 2037-4909, doi: 10.1393/ncc/i2009-10502-9

C. Adolph, M. Alekseev, V. Alexakhin, Yu. Alexandrov, G. Alexeev, A. Amoroso, A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, E. Burtin, D. Chaberny, M. Chiosso, S. Chung, A. Cicuttin, M. Crespo, S. Dalla Torre, S. Das, S. Dasgupta, O. Denisov, L. Dhara, S. Donskov, N. Doshita, V. Duic, W. Dünnweber, M. Dziewiecki, A. Efremov, C. Elia, P. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger, H. Fischer, C. Franco, N. du Fresne von Hohenesche, J. Friedrich, R. Garfagnini, F. Gautheron, O. Gavrichtchouk, R. Gazda, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmüller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, F. Haas, D. von Harrach, T. Hasegawa, F. Heinsius, F. Herrmann, C. Hess, F. Hinterberger, N. Horikawa, Ch. Höppner, N. d'Hose, S. Huber, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, P. Jasinski, G. Jegou, R. Joosten, E. Kabuss, D. Kang, B. Ketzer, G. Khaustov, Yu. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J. Koivuniemi, V. Kolosov, K. Kondo, K. Königsmann, I. Konorov, V. Konstantinov, A. Korzenev, A. Kotzinian, O. Kouznetsov, M. Krämer, Z. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, A. Maggiora, A. Magnon, N. Makke, G. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, F. Massmann, T. Matsuda, W. Meyer, T. Michigami, Yu. Mikhailov, M. Moinester, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, F. Nerling, S. Neubert, D. Neyret, V. Nikolaenko, W.-D. Nowak, A. Nunes, A. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, E. Perevalova, G. Pesaro, D. Peshekhonov, G. Piragino, S. P... (2012). First Measurement of Chiral Dynamics in p^{-}¿¿p^{-}p^{-}p^{+}. PHYSICAL REVIEW LETTERS, vol. 108; p. 192001-1-192001-6, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.108.192001

C. Adolph, M.G. Alekseev, V.Yu. Alexakhin, Yu. Alexandrov, G.D. Alexeev, A. Amoroso, A.A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, J. Bieling, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, E. Burtin, D. Chaberny, M. Chiosso, S.U. Chung, A. Cicuttin, M.L. Crespo, S. Dalla Torre, S. Das, S.S. Dasgupta, O.Yu. Denisov, L. Dhara, S.V. Donskov, N. Doshita, V. Duic, W. Dünnweber, M. Dziewiecki, A. Efremov, C. Elia, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger, H. Fischer, C. Franco, N. du Fresne von Hohenesche, J.M. Friedrich, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, R. Gazda, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmüller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, T. Guthörl, F. Haas, D. von Harrach, F.H. Heinsius, F. Herrmann, C. Heß, F. Hinterberger, N. Horikawa, Ch. Höppner, N. d'Hose, S. Huber, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, P. Jasinski, R. Joosten, E. Kabuß, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, K. Kondo, K. Königsmann, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, M. Krämer, Z.V. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, A. Maggiora, A. Magnon, N. Makke, G.K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, F. Massmann, T. Matsuda, W. Meyer, T. Michigami, A. Mielech, Yu.V. Mikhailov, M.A. Moinester, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, T. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, W.D. Nowak, A.S. Nunes, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsa... (2012). Transverse spin effects in hadron-pair production from semi-inclusive deep inelastic scattering. PHYSICS LETTERS. SECTION B, vol. 713; p. 10-16, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.05.015

M Alexeev, F Barbosa, R Birsa, F Bradamante, A Bressan, M Chiosso, P Ciliberti, S Dalla Torre, O Denisov, V Duic, M Finger, M Finger, H Fischer, M Giorgi, B Gobbo, M Gregori, F Herrmann, K Königsmann, D Kramer, S Levorato, A Maggiora, MARTIN A., G Menon, A Mutter, F Nerling, K Novakova, J Novy, D Panzieri, J Polak, E Rocco, C Santos, G Sbrizzai, P Schiavon, C Schill, S Schopferer, M Slunecka, F Sozzi, L Steiger, M Sulc, S Takekawa, F Tessarotto, J F C A Veloso, H Wollny (2012). Detection of single photons with ThickGEM-based counters. JOURNAL OF INSTRUMENTATION, vol. 7; p. C02014-C02014, ISSN: 1748-0221, doi: 10.1088/1748-0221/7/02/C02014

P. Abbon, M. Alexeev, H. Angereri, R. Birsa, P. Bordalo, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, M.L. Colantoni, T. Dafni, S. Dalla Torre, E. Delagnes, O. Denisov, H. Deschamps, V. Diaz, N. Dibiase, V. Duic, W. Eyric, A. Ferrero, M. Finger, M. Finger Jr., H. Fischer, S. Gerassimov, M. Giorgi, B. Gobbo, R. Hageman, D. von Harrach, F.H. Heinsius, R. Jooste, B. Ketzeri, V.N. Kolosov, K. Königsman, I. Konorovi, D. Kramer, F. Kunne, A. Lehman, S. Levorato, A. Maggiora, A. Magnon, A. Manni, MARTIN A., G. Menon, A. Mutter, O. Näh, F. Nerling, D. Neyret, D. Panzieri, S. Pauli, G. Pesaro, C. Pizzolotto, J. Pola, P. Rebourgeard, F. Robinet, E. Rocco, P. Schiavon, C. Schill, W. Schröder, L. Silva, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, M. Svec, S. Takekawa, F. Tessarotto, A. Teufeld, H. Wollny (2010). Particle identification with the fast COMPASS RICH-1 detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 623; p. 330-332, ISSN: 0168-9002

C. Adolph, M.G. Alekseev, V.Yu. Alexakhin, Yu. Alexandrov, G.D. Alexeev, A. Amoroso, A.A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, J. Bieling, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, E. Burtin, L. Capozza, M. Chiosso, S.U. Chung, A. Cicuttin, M.L. Crespo, S. Dalla Torre, S. Das, S.S. Dasgupta, S. Dasgupta, O.Yu. Denisov, L. Dhara, S.V. Donskov, N. Doshita, V. Duic, W. Duennweber, M. Dziewiecki, A. Efremov, C. Elia, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger jr., H. Fischer, C. Franco, N.

du Fresne von Hohenesche, J.M. Friedrich, V. Frolov, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmueller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, T. Guthoerl, F. Haas, D. von Harrach, F.H. Heinsius, F. Herrmann, C. Hess, F. Hinterberger, N. Horikawa, Ch. Hoeppner, N. d'Hose, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, V. Jary, P. Jasinski, R. Joosten, E. Kabuss, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, K. Kondo, K. Koenigsmann, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, M. Kraemer, Z.V. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, A. Magnon, N. Makke, G.K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, T. Matsuda, G. Meshcheryakov, W. Meyer, T. Michigami, Yu.V. Mikhailov, M.A. Moinester, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, T. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, W.D. Nowak, A.S. Nunes, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, E. Perevalova, G. Pesaro, D.V. Peshekhonov, G. Piragino, S. Platchkov, J. Pochodzalla, J. Polak, V.A. P... (2012). Exclusive ¿0 muoproduction on transversely polarised

protons and deuterons. NUCLEAR PHYSICS. B, vol. 865/2012; p. 1-20, ISSN: 0550-3213, doi: 10.1016/j.nuclphysb.2012.07.025

C. Adolph, M.G. Alekseev, V.Yu. Alexakhin, Yu. Alexandrov, G.D. Alexeev, A. Amoroso, A.A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, J. Bieling, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, E. Burtin, L. Capozza, M. Chiosso, S.U. Chung, A. Cicuttin, M.L. Crespo, S. Dalla Torre, S. Das, S.S. Dasgupta, S. Dasgupta, O.Yu. Denisov, L. Dhara, S.V. Donskov, N. Doshita, V. Duic, W. Duennweber, M. Dziewiecki, A. Efremov, C. Elia, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger jr., H. Fischer, C. Franco, N. du Fresne von Hohenesche, J.M. Friedrich, V. Frolov, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmueller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, T. Guthoerl, F. Haas, D. von Harrach, F.H. Heinsius, F. Herrmann, C. Hess, F. Hinterberger, N. Horikawa, Ch. Hoeppner, N. d'Hose, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, V. Jary, P. Jasinski, R. Joosten, E. Kabuss, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, K. Kondo, K. Koenigsmann, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, M. Kraemer, Z.V. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, A. Magnon, N. Makke, G.K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, T. Matsuda, G. Meshcheryakov, W. Meyer, T. Michigami, Yu.V. Mikhailov, M.A. Moinester, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, T. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, W.D. Nowak, A.S. Nunes, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, E. Perevalova, G. Pesaro, D.V. Peshekhonov, G. Piragino, S. Platchkov, J. Pochodzalla, J. Polak, V.A. P... (2012). I – Experimental investigation of transverse spin asymmetries in μ-p SIDIS processes: Collins asymmetries. PHYSICS LETTERS. SECTION B, vol. 717/2012; p. 376-382, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.09.055

C. Adolph, M.G. Alekseev, V.Yu. Alexakhin, Yu. Alexandrov, G.D. Alexeev, A. Amoroso, A.A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, J. Bieling, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, E. Burtin, L. Capozza, M. Chiosso, S.U. Chung, A. Cicuttin, M.L. Crespo, S. Dalla Torre, S. Das, S.S. Dasgupta, S. Dasgupta, O.Yu. Denisov, L. Dhara, S.V. Donskov, N. Doshita, V. Duic, W. Duennweber, M. Dziewiecki, A. Efremov, C. Elia, P.D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger jr., H. Fischer, C. Franco, N. du Fresne von Hohenesche, J.M. Friedrich, V. Frolov, R. Garfagnini, F. Gautheron, O.P. Gavrichtchouk, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmueller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, T. Guthoerl, F. Haas, D. von Harrach, F.H. Heinsius, F. Herrmann, C. Hess, F. Hinterberger, N. Horikawa, Ch. Hoeppner, N. d'Hose, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, V. Jary, P. Jasinski, R. Joosten, E. Kabuss, D. Kang, B. Ketzer, G.V. Khaustov, Yu.A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J.H. Koivuniemi, V.N. Kolosov, K. Kondo, K. Koenigsmann, I. Konorov, V.F. Konstantinov, A. Korzenev, A.M. Kotzinian, O. Kouznetsov, M. Kraemer, Z.V. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A.A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, A. Magnon, N. Makke, G.K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, T. Matsuda, G. Meshcheryakov, W. Meyer, T. Michigami, Yu.V. Mikhailov, M.A. Moinester, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, T. Negrini, F. Nerling, S. Neubert, D. Neyret, V.I. Nikolaenko, W.D. Nowak, A.S. Nunes, A.G. Olshevsky, M. Ostrick, A. Padee, R. Panknin, D. Panzieri, B. Parsamyan, S. Paul, E. Perevalova, G. Pesaro, D.V. Peshekhonov, G. Piragino, S. Platchkov, J. Pochodzalla, J. Polak, V.A. P... (2012). II – Experimental investigation of transverse spin asymmetries in μ-p SIDIS processes: Sivers asymmetries. PHYSICS LETTERS. SECTION B, vol. 717; p. 383-389, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.09.056

M. Alexeev, F. Barbosa, R. Birsa, F. Bradamante, A. Bressan, M. Chiosso, P. Ciliberti, S. Dalla Torre, O. Denisov, V. Duic, A. Ferrero, M. Finger, M. Finger, H. Fischer, M. Giorgi, B. Gobbo, M. Gregori, F.H. Heinsius, F. Herrmann, K. Königsmann, D. Kramer, L. Lauser, S. Levorato, A. Maggiora, MARTIN A., G. Menon, K. Novakova, J. Novy, D. Panzieri, G. Pesaro, J. Polak, E. Rocco, C. Santos, G. Sbrizzai, P. Schiavon, C. Schill, S. Schopferer, M. Slunecka, F. Sozzi, L. Steiger, M. Sulc, S. Takekawa, F. Tessarotto, C. Veloso, H. Wollny (2012). Detection of single photons with THickGEM-based counters. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 695; p. 159-162, ISSN: 0168-9002, doi: 10.1016/j.nima.2011.11.079

C. Adolph, M. G. Alekseev, V. Yu. Alexakhin, Yu. Alexandrov, G. D. Alexeev, A. Amoroso, A. A. Antonov, A. Austregesilo, B. Badelek, F. Balestra, J. Barth, G. Baum, Y. Bedfer, A. Berlin, J. Bernhard, R. Bertini, M. Bettinelli, K. Bicker, J. Bieling, R. Birsa, J. Bisplinghoff, P. Bordalo, F. Bradamante, C. Braun, A. Bravar, A. Bressan, M. Büchele, E. Burtin, L. Capozza, M. Chiosso, S. U. Chung, A. Cicuttin, M. L. Crespo, S. Dalla Torre, S. Das, S. S. Dasgupta, S. Dasgupta, O. Yu. Denisov, L. Dhara, S. V. Donskov, N. Doshita, V. Duic, W. Dünnweber, M. Dziewiecki, A. Efremov, C. Elia, P. D. Eversheim, W. Eyrich, M. Faessler, A. Ferrero, A. Filin, M. Finger, M. Finger, H. Fischer, C. Franco, N. du Fresne von Hohenesche, J. M. Friedrich, V. Frolov, R. Garfagnini, F. Gautheron, O. P. Gavrichtchouk, S. Gerassimov, R. Geyer, M. Giorgi, I. Gnesi, B. Gobbo, S. Goertz, S. Grabmüller, A. Grasso, B. Grube, R. Gushterski, A. Guskov, T. Guthörl, F. Haas, D. Harrach, F. H. Heinsius, F. Herrmann, C. Heß, F. Hinterberger, N. Horikawa, Ch. Höppner, N. d'Hose, S. Huber, S. Ishimoto, O. Ivanov, Yu. Ivanshin, T. Iwata, R. Jahn, V. Jary, P. Jasinski, R. Joosten, E. Kabuß, D. Kang, B. Ketzer, G. V. Khaustov, Yu. A. Khokhlov, Yu. Kisselev, F. Klein, K. Klimaszewski, S. Koblitz, J. H. Koivuniemi, V. N. Kolosov, K. Kondo, K. Königsmann, I. Konorov, V. F. Konstantinov, A. Korzenev, A. M. Kotzinian, O. Kouznetsov, M. Krämer, Z. V. Kroumchtein, F. Kunne, K. Kurek, L. Lauser, A. A. Lednev, A. Lehmann, S. Levorato, J. Lichtenstadt, T. Liska, A. Maggiora, A. Magnon, N. Makke, G. K. Mallot, A. Mann, C. Marchand, MARTIN A., J. Marzec, T. Matsuda, G. Meshcheryakov, W. Meyer, T. Michigami, Yu. V. Mikhailov, A. Morreale, A. Mutter, A. Nagaytsev, T. Nagel, F. Nerling, S. Neubert, D. Neyret, V. I. Nikolaenko, W.-D. Nowak, A. S. Nunes, A. G. Olshevsky, M. Ostrick, A.... (2012). D* and D meson production in muon nucleon interactions at 160 GeV/c. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 72; p. 1-17, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-012-2253-1

15. MATTEUCCI Maria Francesca

BALLERO S.K., MATTEUCCI F., ORIGLIA L, RICH R.M (2007). Formation and evolution of the Galactic bulge: constraints from stellar abundances. ASTRONOMY & ASTROPHYSICS, vol. 467; p. 123-136, ISSN: 0004-6361, doi: 10.1051/0004-6361:20066596

BISSALDI E, CALURA F, MATTEUCCI F., LONGO F, BARBIELLINI G (2007). The connection between gamma-ray bursts and supernovae Ib/c. ASTRONOMY & ASTROPHYSICS, vol. 471; p. 585-597, ISSN: 0004-6361

PIPINO A, PUZIA T. H, MATTEUCCI F. (2007). The Formation of Globular Cluster Systems in Massive Elliptical Galaxies: Globular Cluster Multimodality from Radial Variation of Stellar Populations. THE ASTROPHYSICAL JOURNAL, vol. 665; p. 295-305, ISSN: 0004-637X

PIPINO A, MATTEUCCI F. (2008). Are dry mergers of ellipticals the way to reconcile model predictions with downsizing?. ASTRONOMY & ASTROPHYSICS, vol. 486; p. 763-769, ISSN: 0004-6361

CALURA F, JIMENEZ R, PANTER B, MATTEUCCI F., HEAVENS, A.F (2008). Evidence for Progressive Loss of Star-forming Gas in SDSS Galaxies. THE ASTROPHYSICAL JOURNAL, vol. 682; p. 252-261, ISSN: 0004-637X

MCWILLIAM A, MATTEUCCI F., BALLERO S, RICH R. M, FULBRIGHT J. P, CESCUTTI G (2008). The Evolution of Oxygen and Magnesium in the Bulge and Disk of the Milky Way. THE ASTRONOMICAL JOURNAL, vol. 136; p. 367-374, ISSN: 0004-6256, doi: 10.1088/0004-6256/136/1/367

SPITONI E, RECCHI S, MATTEUCCI F. (2008). Galactic fountains and their connection with high and intermediate velocity clouds. ASTRONOMY & ASTROPHYSICS, vol. 484; p. 743-753, ISSN: 0004-6361

PIPINO A, D'ERCOLE A, MATTEUCCI F. (2008). Formation of [a/Fe] radial gradients in the stars of elliptical galaxies. ASTRONOMY & ASTROPHYSICS, vol. 484; p. 679-691, ISSN: 0004-6361

BALLERO S. K, MATTEUCCI F., CIOTTI L, CALURA F, PADOVANI P (2008). Evolution of chemical abundances in Seyfert galaxies. ASTRONOMY & ASTROPHYSICS, vol. 478; p. 335-351, ISSN: 0004-6361

CALURA F, PIPINO A, MATTEUCCI F. (2008). The cycle of interstellar dust in galaxies of different morphological types. ASTRONOMY & ASTROPHYSICS, vol. 479; p. 669-685, ISSN: 0004-6361

LANFRANCHI G. A, MATTEUCCI F., CESCUTTI G (2008). A comparison of the s- and r-process element evolution in local dwarf spheroidal galaxies and in the Milky Way. ASTRONOMY & ASTROPHYSICS, vol. 481; p. 635-644, ISSN: 0004-6361

PIPINO ANTONIO, SILK JOSEPH, MATTEUCCI F. (2009). Supermassive black holes, star formation and downsizing of elliptical galaxies. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 392; p. 475-482, ISSN: 0035-8711

CESCUTTI G, MATTEUCCI F., LANFRANCHI G. A, MCWILLIAM A (2008). The chemical evolution of manganese in different stellar systems. ASTRONOMY & ASTROPHYSICS, vol. 491; p. 401-482, ISSN: 0004-6361

RECCHI S, SPITONI E, MATTEUCCI F., LANFRANCHI G. A (2008). The effect of differential galactic winds on the chemical evolution of galaxies. ASTRONOMY & ASTROPHYSICS, vol. 489; p. 555-565, ISSN: 0004-6361, doi: 10.1051/0004-6361:20080987910.1051/0004-6361/200911756

Spitoni, E., Calura, F., MATTEUCCI F., F., Recchi, S. (2010). The origin of the mass-metallicity relation: an analytical approach. ASTRONOMY & ASTROPHYSICS, vol. 0004-6361; p. 73-83, ISSN: 0004-6361

Lanfranchi, G. A., MATTEUCCI F., F. (2010). Chemical evolution models for thedwarf spheroidal galaxies Leo 1 and Leo 2. ASTRONOMY & ASTROPHYSICS, vol. 512; p. 85-95, ISSN: 0004-6361

Cescutti, G., MATTEUCCI F., F., McWilliam, A., Chiappini, C. (2009). The evolution of carbon and oxygen in the bulge and disk of the Milky Way. ASTRONOMY & ASTROPHYSICS, vol. 505; p. 605-705, ISSN: 0004-6361

MATTEUCCI F., F., Spitoni, E., Recchi, S., Valiante, R. (2009). The effect of different type Ia supernova progenitors on Galactic chemical evolution. ASTRONOMY & ASTROPHYSICS, vol. 501; p. 531-538, ISSN: 0004-6361

Spitoni, E., MATTEUCCI F., F., Recchi, S., Cescutti, G., Pipino, A. (2009). Effects of galactic fountains and delayed mixing in the chemical evolution of the Milky Way. ASTRONOMY & ASTROPHYSICS, vol. 504; p. 87-96, ISSN: 0004-6361

Romano, D., Tosi, M., Cignoni, M., MATTEUCCI F., F., Pancino, E., Bellazzini, M. (2010). On the origin of the helium-rich population in ¿Centauri. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 401; p. 2490-2498, ISSN: 0035-8711

Marcon-Uchida, M. M., MATTEUCCI F., F., Costa, R. D. D. (2010). Chemical evolution models for spiral disks: the Milky Way, M 31, and M 33. ASTRONOMY & ASTROPHYSICS, vol. 520; p. 35-45, ISSN: 0004-6361

Romano, D., Karakas, A. I., Tosi, M., MATTEUCCI F., F. (2010). Quantifying the uncertainties of chemical evolution studies. II. Stellar yields. ASTRONOMY & ASTROPHYSICS; p. 522-550, ISSN: 0004-6361

Fan, X. L., Yin, J., MATTEUCCI F., F. (2010). The nature of long-GRB host galaxies from chemical abundances. ASTRONOMY & ASTROPHYSICS, vol. 521; p. 73-81, ISSN: 0004-6361

Pipino, A., D'Ercole, A., Chiappini, C., MATTEUCCI F., F. (2010). Abundance gradient slopes versus mass in spheroids: predictions by monolithic models. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 407; p. 1347-1359, ISSN: 0035-8711

D'Elia, V., Fynbo, J. P. U., Covino, S., Goldoni, P., Jakobsson, P., MATTEUCCI F., F., Piranomonte, S., Sollerman, J., Thöne, C. C., Vergani, S. D., and 14 coauthors (2010). VLT/X-shooter spectroscopy of the GRB 090926A afterglow. ASTRONOMY & ASTROPHYSICS, vol. 523; p. 36-47, ISSN: 0004-6361

PIPINO, A., FAN, X. L., MATTEUCCI F., F., CALURA, F., SILVA, L., GRANATO, G., MAIOLINO, R. (2011). The chemical evolution of elliptical galaxies with stellar and QSO dust production. ASTRONOMY & ASTROPHYSICS, vol. 525; p. 61-76, ISSN: 0004-6361

CESCUTTI, G., MATTEUCCI F., F. (2011). Galactic astroarchaeology: reconstructing the bulge history by means of the newest data. ASTRONOMY & ASTROPHYSICS, vol. 525; p. 126-131, ISSN: 0004-6361

PIPINO, A., MATTEUCCI F., F. (2011). Abundance ratios in the hot ISM of elliptical galaxies. ASTRONOMY & ASTROPHYSICS, vol. 530; p. 98-108, ISSN: 0004-6361

Calura F., Pipino A., Chiappini C., MATTEUCCI F., Maiolino, R. (2009). The evolution of the mass-metallicity relation in galaxies of differentmorphological types. ASTRONOMY & ASTROPHYSICS, vol. 504; p. 373-383, ISSN: 0004-6361, doi: 10.1051/0004-6361/200911756

Yin J., Magrini L., MATTEUCCI F., Lanfranchi G. A., Gonçalves D. R., Costa R. D. D. (2010). The chemical evolution of IC 10. ASTRONOMY & ASTROPHYSICS, vol. 520; p. 55-65, ISSN: 0004-6361

Pace G., Danziger J., Carraro G., Melendez J., François P., MATTEUCCI F., Santos N. C. (2010). Abundances and physical parameters for stars in the open clusters NGC 5822 and IC 4756. ASTRONOMY & ASTROPHYSICS, vol. 515; p. 28-37, ISSN: 0004-6361

Romano, D., Cescutti, G., MATTEUCCI F., F. (2011). Manganese evolution in Omega Centauri: a clue to the cluster formation mechanisms?. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 418; p. 696-702, ISSN: 0035-8711

Spitoni, E., MATTEUCCI F., F. (2011). Effects of the radial flows on the chemical evolution of the Milky Way disk. ASTRONOMY & ASTROPHYSICS, vol. 531; p. 72-82, ISSN: 0004-6361

Yin, J., MATTEUCCI F., F., Vladilo, G. (2011). Chemical evolution of dwarf irregular and blue compact galaxies. ASTRONOMY & ASTROPHYSICS, vol. 531; p. 136-155, ISSN: 0004-6361

Vladilo, G., Abate, C., Yin, J., Cescutti, G., MATTEUCCI F., F. (2011). Silicon depletion in damped Ly a systems. The S/Zn method. ASTRONOMY & ASTROPHYSICS, vol. 530; p. 33-55, ISSN: 0004-6361

Pipino, A., Fan, X. L., MATTEUCCI F., F., Calura, F., Silva, L., Granato, G., Maiolino, R. (2011). The chemical evolution of elliptical galaxies with stellar and QSO dust production. ASTRONOMY & ASTROPHYSICS, vol. 525; p. 61-76, ISSN: 0004-6361

Cescutti, G., MATTEUCCI F., F. (2011). Galactic astroarchaeology: reconstructing the bulge history by means of the newest data. ASTRONOMY & ASTROPHYSICS, vol. 525; p. 126-131, ISSN: 0004-6361

Pipino, A., MATTEUCCI F., F. (2011). Abundance ratios in the hot ISM of elliptical galaxies. ASTRONOMY & ASTROPHYSICS, vol. 530; p. 98-108, ISSN: 0004-6361

Ballero, S.K., MATTEUCCI F., F., Origlia, L., Rich, R.M. (2007). Formation and evolution of the galactic bulge: constraints from stellar abundances. ASTRONOMY & ASTROPHYSICS, vol. 467; p. 123-148, ISSN: 0004-6361, doi: 10.1051/0004-6361:20066596

Cescutti, G., MATTEUCCI F., F., Francois, P., Chiappini, C. (2007). Abundance gradients in the Milky Way for alpha-elements, iron peak elements, barium, lanthanum and europium. ASTRONOMY & ASTROPHYSICS, vol. 462; p. 943-951, ISSN: 0004-6361, doi: 10.1051/0004-6361:20065403

Gnerucci, A., Marconi, A., Cresci, G., Maiolino, R., Mannucci, F., Calura, F., Cimatti, A., Cocchia, F., Grazian, A., MATTEUCCI F., F., Nagao, T., Pozzetti, L., Troncoso, P. (2011). Dynamical properties of AMAZE and LSD galaxies from gas kinematics and the Tully-Fisher relazion at z~ 3. ASTRONOMY & ASTROPHYSICS, vol. 525; p. 88-110, ISSN: 0004-6361, doi: 10.1051/0004-6361/201015465

Maiolino, R., Mannucci, F., Cresci, G., Gnerucci, A., Troncoso, P., Marconi, A., Calura, F., Cimatti, A., Cocchia, F., Fontana, A., Granato, G., Grazian, A., MATTEUCCI F., F., Nagao, T., Pentericci, L., Pipino, A., Pozzetti, L., Risaliti, G., Silva, L. (2011). AMAZE and LSD: Metallicity and Dynamical Evolution of Galaxies in the Early Universe. THE MESSENGER, vol. 142; p. 36-39, ISSN: 0722-6691

Santini, P., Maiolino, R., Magnelli, B., Silva, L., Grazian, A., Altieri, B., Andreani, P., Aussel, H., Berta, S., Bongiovanni, A., Brisbin, D., Calura, F., Cava, A., Cepa, J., Cimatti, A., Daddi, E., Dannerbauer, H., Dominguez-Sanchez, H., Elbaz, D., Fontana, A., Förster Schreiber, N., Genzel, R., Granato, G. L., Gruppioni, C., Lutz, D., Magdis, G., Magliocchetti, M., MATTEUCCI F., F., Nordon, R., Pérez Garcia, I., Poglitsch, A., Popesso, P., Pozzi, F., Riguccini, L., Rodighiero, G., Saintonge, A., Sanchez-Portal, M., Shao, L., Sturm, E., Tacconi, L., Valtchanov, I.

Affiliation: (2010). The dust content of high-z submillimeter galaxies revealed by Herschel. ASTRONOMY & ASTROPHYSICS, vol. 518; p. 154-158, ISSN: 0004-6361, doi: 10.1051/0004-6361/201014748

Valiante, R., MATTEUCCI F., F., Recchi, S. (2009). Theoretical cosmic Type Ia supernova rates. NEW ASTRONOMY, vol. 14; p. 638-648, ISSN: 1384-1076, doi: 10.1016/j.newast.2009.03.003

Schurer, A., Calura, F., Silva, L., Pipino, A., Granato, G. L., MATTEUCCI F., F., Maiolino, R. (2009). Modelling the effects of dust evolution on the SEDs of galaxies of different morphological type. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 394; p. 2001-2021, ISSN: 0035-8711, doi: 10.1111/j.1365-2966.2009.14441.x

Calura, Francesco, Dessauges-Zavadski, Miroslava, Prochaska, Jason X., MATTEUCCI F., Francesca (2009). Constraining the Star Formation Histories of Gamma-Ray Burst Host Galaxies from their Observed Abundance Patterns. THE ASTROPHYSICAL JOURNAL, vol. 692; p. 1236-1249, ISSN: 0004-637X, doi: 10.1088/0004-637X/693/2/1236

Colavitti, E., Cescutti, G., MATTEUCCI F., F., Murante, G. (2009). Cosmological formation and chemical evolution of an elliptical galaxy. ASTRONOMY & ASTROPHYSICS, vol. 499; p. 409-415, ISSN: 0004-6361, doi: 10.1051/0004-6361/200811379

Pace, G., Melendez, J., Pasquini, L., Carraro, G., Danziger, J., François, P., MATTEUCCI F., F., Santos, N. C. (2009). An investigation of chromospheric activity spanning the Vaughan-Preston gap: impact on stellar ages. ASTRONOMY & ASTROPHYSICS, vol. 499; p. 9-12, ISSN: 0004-6361, doi: 10.1051/0004-6361/200912090

MATTEUCCI F., Francesca (2012). hemical Evolution of Galaxies. Heidelberg Dordrecht London Ne: Springer Verlag, ISBN: 9783642224904, doi: 10.1007/978-3-642-22491-1

Vincoletto, L., MATTEUCCI F., F., Calura, F., Silva, L., Granato, G. (2012). Cosmic star formation rate: a theoretical approach. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 421; p. 3116-3126, ISSN: 0035-8711, doi: 10.1111/j.1365-2966.2012.20535.x

Lagarde, N., Romano, D., Charbonnel, C., Tosi, M., Chiappini, C., MATTEUCCI F., F. (2012). Effects of thermohaline instability and rotation-induced mixing on the evolution of light elements in the Galaxy: D, 3He and 4He. ASTRONOMY & ASTROPHYSICS, vol. 542; p. 62-73, ISSN: 0004-6361, doi: 10.1051/0004-6361/201219132

Cescutti, G., MATTEUCCI F., F., Caffau, E., François, P. (2012). Chemical evolution of the Milky Way: the origin of phosphorus. ASTRONOMY & ASTROPHYSICS, vol. 540; p. 33-36, ISSN: 0004-6361, doi: 10.1051/0004-6361/201118188

Calura, F., Recchi, S., MATTEUCCI F., F., Kroupa, P. (2010). Effects of the integrated galactic IMF on the chemical evolution of the solar neighbourhood. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 406; p. 1985-1999, ISSN: 0035-8711

16. MILOTTI Edoardo

CHIGNOLA R, DEL FABBRO A., DALLA PELLEGRINA C, MILOTTI E. (2007). Ab initio phenomenological simulation of the growth of large tumor cell population. PHYSICAL BIOLOGY, vol. 4; p. 114-133, ISSN: 1478-3967, doi: 10.1088/1478-3975/4/2/005

S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, M. CATITTI, C. CURCEANU PETRASCU, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., D. PIETREANU, T. PONTA, D. L. SIRGHI, F. SIRGHI, L. SPERANDIO, E. WIDMANN, J. ZMESKAL (2007). The VIP (Violation of the Pauli Exclusion Principle) Experiment. INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, vol. 5; p. 299-304, ISSN: 0219-7499, doi: 10.1142/S0219749907002785

MILOTTI E. (2007). New version of PLNoise: a package for exact numerical simulation of power-law noise. COMPUTER PHYSICS COMMUNICATIONS, vol. 177; p. 391-398, ISSN: 0010-4655, doi: 10.1016/j.cpc.2007.04.005

MILOTTI E. (2007). VIP: an experiment to search for a violation of the Pauli Exclusion Principle. INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol. 22; p. 242-248, ISSN: 0217-751X, doi: 10.1142/S0217751X07035392

MILOTTI E., DEL FABBRO A, DALLA PELLEGRINA C, CHIGNOLA R (2007). Dynamics of allosteric action in multisite protein modification. PHYSICA. A, vol. 379; p. 133-150, ISSN: 0378-4371, doi: 10.1016/j.physa.2006.12.034

E. ZAVATTINI, G. ZAVATTINI, G. RUOSO, E. POLACCO, MILOTTI E., M. KARUZA, U.GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R. CIMINO, S. CARUSOTTO, G.CANTATORE, M. BREGANT (2007). PVLAS : probing vacuum with polarized light. NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS, vol. 164; p. 264-269, ISSN: 0920-5632, doi: 10.1016/j.nuclphysbps.2006.11.096

MILOTTI E. (2007). Artifacts with uneven sampling of red noise. PHYSICAL REVIEW E, STATISTICAL, NONLINEAR, AND SOFT MATTER PHYSICS, vol. 75; p. 011120-1-011120-5, ISSN: 1539-3755, doi: 10.1103/PhysRevE.75.011120

C. TOMELLERI, MILOTTI E., C. DALLA PELLEGRINA, O. PERBELLINI, A. DEL FABBRO, M. T. SCUPOLI, R. CHIGNOLA (2008). A quantitative study on the growth variability of tumour cell clones in vitro. CELL PROLIFERATION, vol. 41; p. 177-191, ISSN: 0960-7722, doi: 10.1111/j.1365-2184.2007.00501.x

S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, M. CATITTI, C. CURCEANU PETRASCU, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., D. PIETREANU, T. PONTA, D. L. SIRGHI, F. SIRGHI, L. SPERANDIO, E. WIDMANN, J. ZMESKAL (2007). New experimental limit on Pauli exclusion principle violation by electrons (VIP experiment). JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 67; p. 012033-, ISSN: 1742-6588, doi: 10.1088/1742-6596/67/1/012033

E. ZAVATTINI, G. ZAVATTINI, G. RUOSO, G. RAITERI, E. POLACCO, MILOTTI E., V. LOZZA, M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R. CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2008). New PVLAS results and limits on magnetically induced optical rotation and ellipticity in vacuum. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 77; p. 032006-1-032006-12, ISSN: 1550-7998, doi: 10.1103/PhysRevD.77.032006

MILOTTI E., A. DEL FABBRO, C. DALLA PELLEGRINA, R. CHIGNOLA (2008). Statistical approach to the analysis of cell desynchronization data. PHYSICA. A, vol. 387; p. 4204-4214, ISSN: 0378-4371, doi: 10.1016/j.physa.2008.03.006

L. SPERANDIO, S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, M. CATITTI, C. CURCEANUPETRASCU, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., D. PIETREANU, T. PONTA, D. L. SIRGHI, F. SIRGHI, O. VAZQUEZ DOCE, E. WIDMANN, J.

ZMESKAL (2008). New limit on the Pauli Exclusion Principle violation by electrons. IL NUOVO CIMENTO DELLA SOCIETÀ ITALIANA DI FISICA. B, vol. 122; p. 641-647, ISSN: 1826-9877, doi: 10.1393/ncb/i2007-10402-y

MILOTTI E., A. DEL FABBRO, C. DALLA PELLEGRINA, R. CHIGNOLA (2008). Statistical approach to the analysis of cell desynchronization data. PHYSICA. A, vol. 387; p. 4204, ISSN: 0378-4371, doi: 10.1016/j.physa.2008.03.006

R. SHARMA, C. CHAKRAVARTY, MILOTTI E. (2008). Multiple Time-Scale Behaviour and Network Dynamics in Liquid Methanol. JOURNAL OF PHYSICAL CHEMISTRY. A, MOLECULES, SPECTROSCOPY, KINETICS, ENVIRONMENT, & GENERAL THEORY, vol. 112; p. 9071-9078, ISSN: 1089-5639, doi: 10.1021/jp802085v

M. BREGANT, G. CANTATORE, S. CARUSOTTO, R. CIMINO, F. DELLA VALLE, G. DI DOMENICO, U. GASTALDI, M. KARUZA, V. LOZZA, MILOTTI E., E. POLACCO, G. RAITERI, G. RUOSO, E. ZAVATTINI, G. ZAVATTINI (2008). Limits on low energy photon-photon scattering from an experiment on magnetic vacuum birefringence. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 78; p. 032006--, ISSN: 1550-7998, doi: 10.1103/PhysRevD.78.032006

BREGANT M, CANTATORE G, CARUSOTTO S, CIMINO R, DELLA VALLE F., DI DOMENICO G, GASTALDI U, KARUZA M, LOZZA V, MILOTTI E., POLACCO E, RAITERI G, RUOSO E, ZAVATTINI E, ZAVATTINI G (2009). New precise measurement of the Cotton-Mouton effect in helium. CHEMICAL PHYSICS LETTERS, vol. 471; p. 322-325, ISSN: 0009-2614, doi: 10.1016/j.cplett.2009.02.035

MILOTTI E., A. DEL FABBRO, R. CHIGNOLA (2009). Numerical integration methods for large-scale biophysical simulations. COMPUTER PHYSICS COMMUNICATIONS, vol. 180; p. 2166-2174, ISSN: 0010-4655, doi: 10.1016/j.cpc.2009.06.021

M. BREGANT, G. CANTATORE, S. CARUSOTTO, R. CIMINO, F. DELLA VALLE, G. DI DOMENICO, U. GASTALDI, M. KARUZA, V. LOZZA, MILOTTI E., E. POLACCO, G. RAITERI, G. RUOSO, E. ZAVATTINI, G. ZAVATTINI (2009). Erratum to 'Measurement of the Cotton–Mouton effect in krypton and xenon at 1064 nm with the PVLAS apparatus' [Chem. Phys. Lett. 392 (2004) 276] and 'A precise measurement of the Cotton–Mouton effect in neon' [Chem. Phys. Lett. 410 (2005) 288]. CHEMICAL PHYSICS LETTERS, vol. 477; p. 415-415, ISSN: 0009-2614, doi: 10.1016/j.cplett.2009.06.094

S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, C. CURCEANU PETRASCU, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., D. PIETREANU, T. PONTA, A. ROMERO VIDAL, D. L. SIRGHI, F. SIRGHI, L. SPERANDIO, O. VAZQUEZ DOCE, E. WIDMANN, J. ZMESKAL (2010). The VIP experimental limit on the Pauli Exclusion Principle violation by electrons. FOUNDATIONS OF PHYSICS, vol. 40; p. 765-775, ISSN: 0015-9018, doi: 10.1007/s10701-009-9346-1

Della Valle F., Di Domenico G., Gastaldi U., MILOTTI E., Pengo R., Ruoso G., Zavattini G. (2010). Towards a direct measurement of vacuum magnetic birefringence: PVLAS achievements. OPTICS COMMUNICATIONS, vol. 283; p. 4194-4198, ISSN: 0030-4018, doi: 10.1016/j.optcom.2010.06.065

Chignola R., Del Fabbro A., MILOTTI E. (2010). Dynamics of intracellular Ca^{2+} oscillations in the presence of multisite Ca^{2+}-binding proteins. PHYSICA. A, vol. 389; p. 3172-3178, ISSN: 0378-4371, doi: 10.1016/j.physa.2010.03.047

C. CURCEANU (PETRASCU), S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., T. PIETREANU, T. PONTA, A. ROMERO VIDAL, A. SCORDO, D. L. SIRGHI, F. SIRGHI, L. SPERANDIO, O. VAZQUEZ DOCE, E. WIDMANN, J. ZMESKAL (2011). "Experimental Tests of Quantum Mechanics, Pauli Exclusion Principle Violation (The VIP Experiment), and Future Perspectives. INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, vol. 9, Suppl.; p. 145-154, ISSN: 0219-7499, doi: 10.1142/S0219749911007162

MILOTTI E., R. Chignola (2010). Emergent properties of tumor microenvironment in a real-life model of multicell tumor sheroids. PLOS ONE, vol. 5; p. e13942--, ISSN: 1932-6203, doi: 10.1371/journal.pone.0013942

MILOTTI E. (2007). New version of PLNoise: a package for exact numerical simulation of power-law noises, p. ---

R. Chignola, A. Del Fabbro, M. Farina, MILOTTI E. (2011). Computational challenges of tumor spheroid modeling. JOURNAL OF BIOINFORMATICS AND COMPUTATIONAL BIOLOGY, vol. 9; p. 559-577, ISSN: 0219-7200, doi: 10.1142/S0219720011005379

Chignola R., Vyshermirsky V., Farina A., Del Fabbro A., MILOTTI E. (2011). Modular model of TNF alpha cytotoxicity. BIOINFORMATICS, vol. 27; p. 1754-1757, ISSN: 1367-4803, doi: 10.1093/bioinformatics/btr297

PIETREANU D., BARTALUCCI S., BERTOLUCCI S., BRAGADIREANU M., CARGNELLI M., CATITTI M., CURCEANU (PETRASCU) C., DI MATTEO S., EGGER J.-P., GUARALDO C., ILIESCU M., ISHIWATARI T., LAUBENSTEIN M., MARTON J., MILOTTI E., PONTA T., SIRGHI D. L., SIRGHI F., SPERANDIO L., VAZQUEZ DOCE O., WIDMANN E., ZMESKAL J. (2009). VIP EXPERIMENT: NEW EXPERIMENTAL LIMIT ON PAULI EXCLUSION PRINCIPLE VIOLATION BY ELECTRONS. INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol. 24; p. 506-510, ISSN: 0217-751X, doi: 10.1142/S0217751X0904395X

C. CURCEANU PETRASCU, S. BARTALUCCI, S. BERTOLUCCI, M. BRAGADIREANU, M. CARGNELLI, S. DI MATTEO, J.-P. EGGER, C. GUARALDO, M. ILIESCU, T. ISHIWATARI, M. LAUBENSTEIN, J. MARTON, MILOTTI E., D. PIETREANU, T. PONTA, A. ROMERO VIDAL, D.L. SIRGHI, F. SIRGHI, L. SPERANDIO, O. VAZQUEZ DOCE, E. WIDMANN, J. ZMESKAL (2011). New Experimental Limit on the Pauli Exclusion Principle Violation by Electrons—The VIP Experiment. FOUNDATIONS OF PHYSICS, vol. 41; p. 282-287, ISSN: 0015-9018, doi: 10.1007/s10701-009-9378-6

MILOTTI E. (2011). Non-Gaussianity as a data analysis artifact. PHYSICAL REVIEW E, STATISTICAL, NONLINEAR, AND SOFT MATTER PHYSICS, vol. 83; p. 042103--, ISSN: 1539-3755, doi: 10.1103/PhysRevE.83.042103

C. Curceanu (Petrascu), S. Bartalucci, S. Bertolucci, M. Bragadireanu, M. Cargnelli, S. Di Matteo, J.-P. Egger, C. Guaraldo, M. Iliescu, T. Ishiwatari, M. Laubenstein, J. Marton, MILOTTI E., T. Pietreanu, T. Ponta, A. Romero Vidal, A. Scordo, D. L. Sirghi, F. Sirghi, L. Sperandio, O. Vazquez Doce, E. Widmann, J. Zmeskal (2011). "Experimental Tests of Quantum Mechanics, Pauli Exclusion Principle Violation (The VIP Experiment), and Future Perspectives. INTERNATIONAL JOURNAL OF QUANTUM INFORMATION, vol. 9, Suppl.; p. 145-154, ISSN: 0219-7499, doi: 10.1142/S0219749911007162

Zavattini G, Gastaldi U, Pengo R, Ruoso G, Della Valle F, MILOTTI E. (2012). Measuring the magnetic birefringence of vacuum: the PVLAS experiment. INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol. 27; p. 1260017-1-1260017-18, ISSN: 0217-751X, doi: 10.1142/S0217751X12600172

Chignola R., MILOTTI E. (2012). Bridging the gap between the micro- and the macro-world of tumors. AIP ADVANCES, vol. 2; p. 011204-011204, ISSN: 2158-3226, doi: 10.1063/1.3699049

E. ZAVATTINI, G. ZAVATTINI, P.TEMNIKOV, G. RUOSO, G.RAITER, E.POLACCO, MILOTTI E., M. KARUZA, U. GASTALDI, G. DI DOMENICO, F. DELLA VALLE, R.CIMINO, S. CARUSOTTO, CANTATORE G., M. BREGANT (2007). Experimental observation of vacuum birefringence. NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS, vol. 174; p. 233-236, ISSN: 0920-5632

17. MODESTI Silvio

STROPPA A, DUAN X, PERESSI M, FURLANETTO D, MODESTI S. (2007). Computational and experimental imaging of Mn defects on GaAs(110) cross-sectional surfaces. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75; p. 195335-1-195335-6, ISSN: 1098-0121, doi: 10.1103/PhysRevB.75.195335

MODESTI S., PETACCIA L, CEBALLOS G, VOBORNIK I, PANACCIONE G, ROSSI G, OTTAVIANO L, LARCIPRETE R, LIZZIT S, GOLDONI A (2007). Insulating Ground State of Sn/Si(111)-(¿3x¿3) R30°. PHYSICAL REVIEW LETTERS, vol. 98 / 2007; p. 126401-1-126401-4, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.98.126401

MODESTI S., Gutzmann H., Wiebe J., Wiesendanger R. (2009). Correction of systematic errors in scanning tunneling spectra on semiconductor surfaces: the energy gap of Si(111)-7x7 at 0.3 K. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 80 2009; p. 125326-1-125326-5, ISSN: 1098-0121, doi: 10.1103/PhysRevB.80.125326

Fortuna S., Gargiani P., Betti M.G., Mariani C., Calzolari A., MODESTI S., Fabris S. (2012). Molecular-driven substrate reconstruction in the two-dimensional serf-organization of Fe-phthalocyanines on Au(110). JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 2012; p. 6251-6258, ISSN: 1932-7447, doi: 10.1021/jp211036m

18. PARMIGIANI Fulvio

C. GIANNETTI, B. REVAZ, F. BANFI, M. MONTAGNESE, G. FERRINI, F. CILENTO, S. MACCALLI, P. VAVASSORI, G. OLIVIERO, E. BONTEMPI, L.E. DEPERO, V. METLUSHKO, PARMIGIANI F. (2007). Thermo-mechanical behavior of surface acoustic waves in ordered arrays of nanodisks studied by near infrared pump-probe diffraction experiments. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 76; p. 125413, ISSN: 1098-0121

CARLESCHI E, MAGNANO E, ZANGRANDO M, PARMIGIANI F. (2007). Manganese silicide single crystal and films deposited on Si(111): A comparative spectroscopic study. SURFACE SCIENCE, vol. 601 (18); p. 4066-4073, ISSN: 0039-6028

ZANGRANDO M, PARMIGIANI F., MAGNANO E, NICOLAOU A (2007). Resonant photoemission spectroscopy of thick Mn films on Si(111) at the 2p edge: Detection of the two-hole valence-band satellite of Mn. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75(23); p. 125413, ISSN: 1098-0121

BONDINO F, ZANGRANDO M, ZACCHIGNA M, PARMIGIANI F. (2007). Crystal-field and Zhang-Rice-singlet excitations in CuGe1-xSixO3 (x=0, 0.05, and 0.1) from temperature-, angle-, and polarization-dependent resonant soft x-ray emission. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75(19); p. 195106, ISSN: 1098-0121

BONDINO F, BRINKMAN A, ZANGRANDO M, PARMIGIANI F. (2007). Experimental investigation of the electronic structure of Gd5Ge2Si2 by photoemission and x-ray absorption spectroscopy. JOURNAL OF PHYSICS. CONDENSED MATTER, vol. 19 (18); p. 186219, ISSN: 0953-8984

AGNOLI S, SEDONA F, FINETTI P, PARMIGIANI F., ET AL (2008). Linearly polarized X-ray absorption investigation of ultrathin NiOx/Pd(100) films. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 112; p. 5123-5128, ISSN: 1932-7447

RINI M, HAO Z, SCHOENLEIN RW, PARMIGIANI F., ET AL (2008). Optical switching in VO2 films by below-gap excitation. APPLIED PHYSICS LETTERS, vol. 92; p. 181904, ISSN: 0003-6951

BONDINO F, GARG KB, MAGNANO E, PARMIGIANI F. (2008). Electronic structure of Mn-doped ZnO by x-ray emission and absorption spectroscopy. JOURNAL OF PHYSICS. CONDENSED MATTER, vol. 20; p. 275205, ISSN: 0953-8984

GARG KB, NORDBLAD P, HEINONEN M, PARMIGIANI F. (2009). Study of Sb substitution for Pr in the Pr0.67Ba0.33MnO3 system. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol. 321; p. 305-311, ISSN: 0304-8853

PAGLIARA S, FERRINI G, GALIMBERTI G, PARMIGIANI F. (2008). Light tuning of the image potential state electron-electron interactions. SURFACE SCIENCE, vol. 602; p. 2983-2988, ISSN: 0039-6028

PEDERSOLI E, GREAVES CMR, WAN W, PARMIGIANI F. (2008). Surface and bulk contribution to Cu(111) quantum efficiency. APPLIED PHYSICS LETTERS, vol. 93; p. 183505, ISSN: 0003-6951

F. BONDINO, E. MAGNANO, M. MALVESTUTO, PARMIGIANI F., M. A. MCGUIRE, A. S. SEFAT, B. C. SALES, R. JIN, D. MANDRUS, E. W. PLUMMER, D. J. SINGH, AND N. MANNELLA (2008). Evidence for Strong Itinerant Spin Fluctuations in the Normal State of CeFeAsO0.89F0.11 Iron-Oxypnictide Superconductors. PHYSICAL REVIEW LETTERS, vol. 101; p. 267001, ISSN: 0031-9007

BONDINO F, MALVESTUTO M, MAGNANO E, PARMIGIANI F. (2009). Overlap of Cu 3d and F 2p orbitals and low-energy excitations in KCuF3

studied by polarization-dependent x-ray absorption and emission. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 79; p. 115120, ISSN: 1098-0121

GIANNETTI C, BANFI F, NARDI D, FERRINI G, PARMIGIANI F. (2009). UltrafastLaser Pulses to Detect and Generate Fast Thermomechanical Transientsin Matter. IEEE PHOTONICS JOURNAL, vol. 1; p. 2, ISSN: 1943-0655

FERRINI G, DE CARLO L, GIANNETTI C, PARMIGIANI F. (2009). EvanescentWave Spectroscopy of Methylene Blue Solutions at Surfaces Using aContinuum Generated by a Nonlinear Fiber. OPTICS AND SPECTROSCOPY, vol. 107; p. 464, ISSN: 0030-400X

FERRINI, G, BANFI, F, GIANNETTI, C, PARMIGIANI F. (2009). Non-linear electron photoemission from metals with ultrashort pulses. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 601; p. 123-131, ISSN: 0168-9002

CACHO CM, VLAIC S, MALVESTUTO M, PARMIGIANI F. (2009). Absolute spin calibration of an electron spin polarimenter by spin-resolved photoemission from the Au(111) surface states. REVIEW OF SCIENTIFIC INSTRUMENTS, vol. 80; p. 904043, ISSN: 0034-6748

GIANNETTI C, COSLOVICH G, CILENTO F, FERRINI G, EISAKI H, KANEKO, N, GREVEN M, PARMIGIANI F. (2009). Discontinuity of the ultrafast electronicresponse of underdoped superconducting Bi2Sr2CaCu2O8+δ strongly excited by ultrashort light pulses. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 79; p. 224502, ISSN: 1098-0121

CARLESCHI E, MALVESTUTO M, ZACCHIGNA M, NICOLAOU A, BROUET V, HÉBERT S, MUGUERRA H, GREBILLE D, PARMIGIANI F. (2009). Electronic structure and charge transfer processes in a Bi-Ca misfit cobaltate,. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 80; p. 035114, ISSN: 1098-0121

NARDI D, BANFI F, GIANNETTI C, REVAZ B, FERRINI G, PARMIGIANI F. (2009). Pseudosurface acoustic waves in hypersonic surface phononiccrystals. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 80; p. 104119, ISSN: 1098-0121

SIMONCIG A, CARETTA A, RESSEL B, POLETTO L, PARMIGIANI F. (2009). Damping of the tunneling mechanism in high-order harmonic generation processes induced by femtosecond visible laser pulses. APPLIED PHYSICS LETTERS, vol. 95; p. 041107, ISSN: 0003-6951

MAIANTI M, PAGLIARA S, GALIMBERTI G, PARMIGIANI F. (2009). Mechanics of two pendulums coupled by a stressed spring. AMERICAN JOURNAL OF PHYSICS, vol. 77; p. 834, ISSN: 0002-9505

GIANNETTI C, ZGRABLIC G, CONSANI C, CREPALDI A, NARDI D, FERRINI G, DHALENNE G, REVCOLEVSCHI A, PARMIGIANI F. (2009). Disentangling thermal and nonthermal excited states in a charge-transfer insulator by time- and frequency-resolved pump-probe spectroscopy. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 80; p. 235129, ISSN: 1098-0121

CILENTO F, GIANNETTI C, FERRINI G, DAL CONTE S, SALA T, COSLOVICH G, RINI M, CAVALLERI A, PARMIGIANI F. (2010). ULTRAFAST INSULATOR-TO-METAL PHASE TRANSITION AS A SWITCH TO MEASURE THE SPECTROGRAM OF A SUPERCONTINUUM LIGHT PULSE. APPLIED PHYSICS LETTERS, vol. 96; p. 021102, ISSN: 0003-6951

ZGRABLIC G., RICCI M., NOVELLO AM., PARMIGIANI F. (2010). Dependence of Photochemical Reactivity of the All-trans Retinal Protonated Schiff Base on the Solvent and the Excitation Wavelength. PHOTOCHEMISTRY AND PHOTOBIOLOGY, vol. 86; p. 507-512, ISSN: 0031-8655

BANFI F., PRESSACCO F., REVAZ B., GIANNETTI C., NARDI D., FERRINI G., PARMIGIANI F. (2010). Ab initio thermodynamics calculation of all-optical time-resolved calorimetry of nanosize systems: Evidence of nanosecond decoupling of electron and phonon temperatures. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 81; p. 155426-155431, ISSN: 1098-0121

MAGNANO E., BONDINO, F., CEPEK C., PARMIGIANI F. (2010). Ferromagnetic and ordered MnSi(111) epitaxial layers. APPLIED PHYSICS LETTERS, vol. 96; p. 152503-152506, ISSN: 0003-6951Parks Cheney C., Bondino F., Callcott T.A., Vilmercati P., Ederer D., Magnano E., Malvestuto M., PARMIGIANI F., Sefat A.S., McGuire M. A., JinR., Sales B. C., Mandrus D., Singh D. J., Freeland J. W., and Mannella N. (2010). Orbital symmetry of Ba(Fe1-xCox)2As2 superconductors probed with x-ray absorption spectroscopy. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS; p. 104518-104528, ISSN: 1098-0121

Magnano E., Bondino F., Cepek C., PARMIGIANI F., Mozzati M.C. (2010). Ferromagnetic and ordered MnSi(111) epitaxial layers. APPLIED PHYSICS LETTERS, vol. 96; p. 152503-152505, ISSN: 1077-3118

F. Bondino, E. Magnano, C. H. Booth, F. Offi, G. Panaccione, M. Malvestuto, G. Paolicelli, L. Simonelli, PARMIGIANI F., M. A. McGuire, A. S. Sefat, B. C. Sales, R. Jin, P. Vilmercati, D. Mandrus, D. J. Singh, and N. Mannella (2010). Electronic structure of CeFeAsO1-xFx (x=0, 0.11, and 0.12). PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 82; p. 014529-014539, ISSN: 1098-0121

Zgrablic G., Ricci M., Novello AM., PARMIGIANI F. (2010). Photochemical Reactivity of the All-trans Retinal Protonated Schiff Base on the Solvent and the Excitation Wavelength. PHOTOCHEMISTRY AND PHOTOBIOLOGY, vol. 86; p. 507-512, ISSN: 1751-1097

Allaria E., Callegari C., Cocco D., Fawley W. M., Kiskinova M., Masciovecchi C., PARMIGIANI F. (2010). The FERMI@Elettra free-electron-laser source for coherent x-ray physics: photon properties, beam transport system and applications. NEW JOURNAL OF PHYSICS, vol. 12; p. 075002-075020, ISSN: 1367-2630

Andreeva N., Bassi D., Cappa F., Cocconcelli P. S., PARMIGIANI F., Ferrini G. (2010). Nanomechanical analysis of Clostridium tyrobutyricum spores. MICRON, vol. 41; p. 945-955, ISSN: 0968-4328

Coslovich G., Giannetti C., Cilento F., Dal Conte S., Ferrini G., Galinetto P., Greven M., Eisaki H., Raichle M., Liang R., Damascelli A., PARMIGIANI F. (2011). Evidence for a photoinduced nonthermal superconducting to-normal-state phase transition in overdoped Bi2Sr2Ca0.92Y0.08Cu2O8+d . PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 83; p. 064519-064529, ISSN: 1098-0121

Malvestuto M., Bondino F., Magnano E., Lummen T. T. A., van Loosdrecht P. H. M., PARMIGIANI F. (2011). Orbital topology, interlayer spin coupling, and magnetic anisotropy of the CuFeO2 compound . PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 83; p. 134422-134432, ISSN: 1098-0121

Malvestuto M., Carleschi E., Fittipaldi R., Gorelov E., Pavarini E., Cuoco M., Maeno Y., PARMIGIANI F., Vecchione A. (2011). Electronic structure trends in the Srn+1RunO3n+1 family (n=1,2,3). PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 83; p. 165121-165131, ISSN: 1098-0121

Pagliara S., Galimberti G., Mor S., Montagnese M., Ferrini G., M S Grandi MS., Galinetto P., PARMIGIANI F. (2011). Photoinduced p-p* band gap renormalization in graphite. JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 133; p. 6318-6322, ISSN: 0002-7863

Giannetti C., Cilento F., Dal Conte S., Coslovich G., Ferrini G., Molegraaf H., Raichle M., Liang R., Eisaki H., Greven M., Damascelli A., van der Marel D., PARMIGIANI F. (2011). Revealing the high-energy electronic excitations underlying the onset of high- temperature superconductivity in cuprates. NATURE COMMUNICATIONS, vol. 2011; p. 1-7, ISSN: 2041-1723

Nardi D., Travagliati T.Siemens M. E., Li Q., Murnane M.M., Kapteyn H.C., Ferrini G., PARMIGIANI F., Banfi F. (2011). Probing thermomechanics at the nanoscale: impulsively excited

pseudosurface acoustic waves in hypersonic phononic crystals. NANO LETTERS, vol. 11; p. 4126-4133, ISSN: 1530-6992

Galimberti G., Pagliara S., Ponzoni S., Dal Conte S., Cilento F., Ferrini G., Hofmann S., Arshad M., Cepek C., PARMIGIANI F. (2011). The photoinduced charge transfer mechanism in aligned and unaligned carbon nanotubes. CARBON, vol. 49; p. 5246-5252, ISSN: 0008-6223

Stebel L., Malvestuto M., Capogrosso V., Sigalotti P., Ressel B., Bondino F., Magnano E., Cautero G., PARMIGIANI F. (2011). Time-resolved soft x-ray absorption setup using multi-bunch operation modes at synchrotrons . REVIEW OF SCIENTIFIC INSTRUMENTS, vol. 82; p. 123109-123115, ISSN: 0034-6748

Aronne A., Fanelli E., Pernice P., Malvestuto M., Bergese P., Bontempi E., Colombi P., Depero L.E., Giannetti C., Ferrini G., PARMIGIANI F. (2011). Local order and non-linear optical properties in bulk nanostructured niobiosilicate glasses . JOURNAL OF NON-CRYSTALLINE SOLIDS, vol. 357; p. 1218-1222, ISSN: 0022-3093

19. PERESSI Maria

DING X, PAGAN V, PERESSI M., ANCILOTTO F (2007). Modeling adsorption of CO2 on Ni(110) surface. MATERIALS SCIENCE AND ENGINEERING. C, BIOMIMETIC MATERIALS, SENSORS AND SYSTEMS, vol. 27; p. 1355-1359, ISSN: 0928-4931, doi: 10.1016/j.msec.2006.06.024

DUAN X, PERESSI M., BARONI S (2007). Characterizing In and N impurities in GaAs from ab initio computer simulation of (110) cross-sectional STM images. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75; p. 035338-1-6, ISSN: 1098-0121, doi: 10.1103/PhysRevB.75.035338

STROPPA A, PERESSI M. (2007). Competing magnetic phases of Mn3Ge5 compound. PHYSICA STATUS SOLIDI. A, APPLICATIONS AND MATERIALS SCIENCE, vol. 204; p. 44-52, ISSN: 1862-6300, doi: 10.1002/pssa.200673014

STROPPA A, DUAN X, PERESSI M., FURLANETTO D, MODESTI S. (2007). Computational and experimental imaging of Mn defects on GaAs(110) cross-sectional surfaces. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75; p. 195335-1-195335-6, ISSN: 1098-0121, doi: 10.1103/PhysRevB.75.195335

GHADERI N, HASHEMIFAR S.J, AKBARZADEH H, PERESSI M. (2007). First principle study of Co2MnSi/GaAs(001) heterostructures. JOURNAL OF APPLIED PHYSICS, vol. 102; p. 074306-(1-7), ISSN: 0021-8979, doi: 10.1063/1.2781529

DING X, DE ROGATIS L, VESSELLI E, BARALDI A, COMELLI G, ROSEI R, SAVIO L, VATTUONE L, ROCCA M, FORNASIERO P, ANCILOTTO F, BALDERESCHI A, PERESSI M. (2007). Interaction of carbon dioxide with Ni(110): a combined experimental and theoretical study. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 76; p. 195425-(1-12), ISSN: 1098-0121, doi: 10.1103/PhysRevB.76.195425

PERESSI M., BALDERESCHI A, BARONI S (2008). Chapter 2: Ab-initio studies of structural and electronic properties. Characterization of Semiconductor Heterostructures and Nanostructures. p. 17-54, OXFORD: Elsevier, ISBN/ISSN: 978-0-444-53099-8

GHADERI N, PERESSI M., BINGGELI N (2008). First-Principles Investigations of Intrinsic and Si-doped GaAs Nanowires: Structural Stability and Electronic Properties. AIP CONFERENCE PROCEEDINGS, vol. 1018; p. 193-196, ISSN: 0094-243X, doi: 10.1063/1.2947681

DING X, DE ROGATIS L, VESSELLI E, BARALDI A, COMELLI G, ROSEI R, SAVIO L, VATTUONE L, ROCCA M, FORNASIERO P, ANCILOTTO F, BALDERESCHI A, PERESSI M. (2008). Interaction of carbon dioxide with Ni(110): a combined experimental and theoretical study. AIP CONFERENCE PROCEEDINGS, vol. 1018; p. 197-200, ISSN: 0094-243X, doi: 10.1063/1.2947682

VESSELLI E, DE ROGATIS L, DING X, BARALDI A, SAVIO L, VATTUONE L, ROCCA M, FORNASIERO P, PERESSI M., BALDERESCHI A, ROSEI R, COMELLI G (2008). Carbon Dioxide Hydrogenation on Ni(110). JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 130(34); p. 11417-11422, ISSN: 0002-7863, doi: 10.1021/JA802554G

VESSELLI E, RIZZI M, DE ROGATIS L, DING X, BARALDI A, COMELLI G, SAVIO L, VATTUONE L, ROCCA M, P. FORNASIERO, BALDERESCHI A, PERESSI M. (2010). Hydrogen-assisted transformation of CO2 on nickel: the role of formate and carbon monoxide. THE JOURNAL OF PHYSICAL CHEMISTRY LETTERS, vol. 1; p. 402-406, ISSN: 1948-7185, doi: 10.1021/jz900221c.

GHADERI N., PERESSI M., BINGGELI N. (2010). Structural properties and energetics of intrinsic and Si-doped GaAs nanowires: First-principles pseudopotential calculations. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 81; p. 155311--(1-9), ISSN: 1098-0121, doi: 10.1103/PhysRevB.81.155311

DRI C., PERONIO A., VESSELLI E., AFRICH C., RIZZI M., BALDERESCHI A., PERESSI M., COMELLI G. (2010). Imaging and characterization of activated CO2 species on Ni(110). PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 82; p. 165403--(1-6), ISSN: 1098-0121, doi: 10.1103/PhysRevB.82.165403

GHADERI N., PERESSI M. (2010). First-Principle Study of Hydroxyl Functional Groups on Pristine, Defected Graphene, and Graphene Epoxide. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 114/2010; p. 21625-21630, ISSN: 1932-7447, doi: 10.1021/jp108688m

X. DING, L. DE ROGATIS, VESSELLI E., A. BARALDI, G. COMELLI, R. ROSEI, L. SAVIO, L. VATTUONE, M. ROCCA, P. FORNASIERO, F. ANCILOTTO, A. BALDERESCHI, PERESSI M. (2008). Interaction of carbon dioxide with Ni(110): a combined experimental and theoretical study. In: AIP Conference Proceedings, MELVILLE: American Institute of Physics, vol. 1018, p. 197-200

X. DING, PERESSI M., A. BALDERESCHI, VESSELLI E., L. DE ROGATIS, A. BARALDI, G. COMELLI, R. ROSEI, P. FORNASIERO, L. SAVIO, L. VATTUONE, M. ROCCA (2009). Carbon dioxide activation and hydrogenation on Ni surfaces for organic synthesis. In: -. Elettra Highlights 2007-2008. p. 96-97, TRIESTE: Sincrotrone Trieste ScpA

VESSELLI E, DE ROGATIS L, DING X, BARALDI A, SAVIO L, VATTUONE L, ROCCA M, FORNASIERO P., PERESSI M., BALDERESCHI A, ROSEI R, COMELLI G (2008). Hydrogen-assisted Carbon Dioxide Activation on Ni(110). JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 130; p. 11417-11422, ISSN: 0002-7863, doi: 10.1021/ja802554g.

20. RUI Rinaldo

I. RASHEVSKAYA, O. BORYSOV, L. BOSISIO, M. BREGANT, CAMERINI P, E, CATTARUZZA, G. CONTIN, A. DYATLOVICH, E. FRAGIACOMO, G. GIACOMINI, N, GRION, G.V. MARGAGLIOTTI, S. NAUMOV, S. PIANO, S. POTIN, RUI R., A. STARODUBTSEV (2007). Qualification of a large number of double-sided

silicon microstrip sensors for the ALICE inner tracking system. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 572; p. 122-124, ISSN: 0168-9002

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G, BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P, M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R.A. FINI, E.M. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, A. KRASNOPEROV, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H.SO, V.TERESHCHENKO, S.TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). Study of the proton weak decay of (Lambda)C-12(g.s.) with FINUDA. THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI, vol. 33; p. 251-254, ISSN: 1434-6001, doi: 10.1140/epja/i2007-10476-4

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P, M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R.A. FINI, E.M. FIORE, H. FUJIOKA, P. GIANOTTI, N, GRION, O. HARTMANN, A. KRASNOPEROV, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H.SO, V.TERESHCHENKO, S. TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). The A(K-(stop), Lambda d)A-prime reaction, a tool to observe [anti-K N N

N] clusters. THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI, vol. 33; p. 283-286, ISSN: 1434-6001, doi: 10.1140/epja/i2007-10468-4

M. AGNELLO, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P, M. CAPONERO, P. CERELLO, B. DALENA, F. DE MORI, G. D'ERASMO, D. DI SANTO, R. DONA, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, R. FINI, M.E. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, A. KRASNOPEROV, V. LUCHERINI, V. LENTI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, A. OLIN, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, F. POMPILI, RUI R., G. SIMONETTI, H. SO, V. TERESHCHENKO, S. TOMASSINI, A. TOYODA, R. WHEADON, A. ZENONI (2007). Correlated Lambda d pairs from the

K-(stop) A ---> Lambda d A-prime reaction. PHYSICS LETTERS. SECTION B, vol. 654; p. 80-86, ISSN: 0370-2693, doi: 10.1016/j.physletb.2007.08.051

M. AGNELLO, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, L. BUSSO, D. CALVO, CAMERINI P, P. CERELLO, B. DALENA, F. DE MORI, G. DERASMO, D. DI SANTO, D. ELIA, F.L, FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, V. FILIPPINI, R. FINI, M.E. FIORE, H. FUJIOKA, P. GIANOTTI, N. GRION, B. KANG, A. KRASNOPEROV, V. LUCHERINI, V. LENTI, V.MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, O. MORRA, T. NAGAE, H. OUTA, E. PACE, M. PALLOTTA, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., G. SIMONETTI, H. SO, V. TERESCHENKO, S. TOMASSINI, R. WHEADON, A. ZENONI (2007). DAFNE MONITORED BY FINUDA. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 570; p. 205-215, ISSN: 0168-9002

M. BREGANT, O. BORYSOV, L. BOSISIO, CAMERINI P, G. CONTIN, F. FALESCHINI, E. FRAGIACOMO, N. GRION, G.V. MARGAGLIOTTI, S. PIANO, I. RACHEVSKAYA, RUI R., F. BENEDOSSO, A.P. DE HAAS, R. KLUIT, P.G. KUIJER, G.J.L. NOOREN, C.J. OSKAMP, A.N. SOKOLOV, A. VAN DEN BRINK, F. AGNESE, D. BONNET, O. CLAUSSE, M. IMHOFF, C. KUHN, F. LITTEL, J.R. LUTZ, S. PLUMERI, C. WABNITZ, V. ZETER, M. OINONEN, S. NIKKINEN, Z. RADIVOJEVIC, H. SEPPANEN, M. OSTERBERG, V. ANTONOVA, V. BORSHCHOV, S.K. KIPRICH, A. LISTRATENKO, I. TYMCHUK, G. ZINOVEV (2007). Assembly and validation of the ALICE silicon microstrip detector. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 570; p. 312-316, ISSN: 0168-9002

M.AGNELLO, G.BEER, L.BENUSSI, M. BERTANI, H.C.BHANG, S.BIANCO, G.BONOMI, E.BOTTA, M.BREGANT, T.BRESSANI, S. BUFALINO, L.BUSSO, D.CALVO, CAMERINI P, M.CAPONERO, P.CERELLO, B.DALENA, F.DE MORI, G.D'ERASMO, D.DI SANTO, D.ELIA, F.L.FABBRI, D.FASO, A.FELICIELLO, V.FILIPPI, V.FILIPPINI, R.A.FINI, E.M.FIORE, H.FUJIOKA, P.GIANOTTI, N.GRION, O.HARTMANN, H.B.KANG, A.KRASNOPEROV, V.LENTI, V.LUCHERINI, V.MANZARI, S.MARCELLO, T.MARUTA, N.MIRFAKHRAI, O.MORRA, T.NAGAE, A.OLIN, H.OUTA, E.PACE, M.PALLOTTA, M.PALOMBA, A.PANTALEO, A.PANZARASA, V.PATICCHIO, S.PIANO, F.POMPILI, RUI R., G.SIMONETTI, H.SO, V.TERESHCHENKO, S.TOMASSINI, A.TOYODA, R.WHEADON, A.ZENONI (2007). Experimental study of the (K+, K0) interactions on Li-7 close to threshold. PHYSICS LETTERS. SECTION B, vol. 649; p. 25-30, ISSN: 0370-2693

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, S. BIANCO, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, B. DALENA, F. DE MORI, G. D'ERASMO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, E.M. FIORE, A. FONTANA, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, A. KRASNOPEROV, Y. LEE, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., M. SEKIMOTO, G. SIMONETTI, V. TERESHCHENKO, A. TOYODA, R. WHEADON, A. ZENONI (2008). Measurement of the proton spectra from Non-Mesonic Weak Decay of hyper He-5 (Lambda), hyper Li-5 (Lambda) and hyper-C-12 (Lambda). NUCLEAR PHYSICS. A, vol. 804; p. 151-161, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2008.02.003

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., M. CAPONERO, B. DALENA, F. DE MORI, G. D'ERASMO, D. ELIA, F.L. FABBRI, D. FASO, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, A. KRASNOPEROV, Y. LEE, V. LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., M. SEKIMOTO, G. SIMONETTI, V. TERESHCHENKO, A. TOYODA, R. WHEADON AND A. ZENONI (2008). Correlated ¿t pairs from the absorption of K- at rest in light nuclei. PHYSICS LETTERS. SECTION B, vol. 669; p. 229-234, ISSN: 0370-2693, doi: 10.1016/j.physletb.2008.09.052

V.BONVICINI, O.BORYSOV, L.BOSISIO, M.BREGANT, P.CAMERINI, E.CATARUZZA, G.CONTIN, E.FRAGIACOMO, N.GRION, G.V.MARGAGLIOTTI, S.PIANO, C.PIEMONTE, I.RACHEVSKAYA, A.RACHEVSKI, A.ROSSI, RUI R., A.VACCHI, M.VENARUZZO, G.ZAMPA, ET.AL - ALICE COLLABORATION (2008). The ALICE experiment at the CERN LHC. JOURNAL OF INSTRUMENTATION, vol. 3; p. s08002-, ISSN: 1748-0221, doi: 10.1088/1748-0221/3/08/S08002

K. Aamodt78, N. Abel43, U. Abeysekara30, A. Abrahantes Quintana42, D. Adamova ´86, M.M. Aggarwal25, G. Aglieri Rinella40, A.G. Agocs18, S. Aguilar Salazar66, Z. Ahammed55, A. Ahmad2, N. Ahmad2, S.U. Ahn50 i, R. Akimoto100, A. Akindinov68, D. Aleksandrov70, B. A l e s s a n d r o 1 0 2, R . A l f a r o M o l i n a 6 6, A . A l i c i 1 3, E . A l m a r a ´ z A v i n ~ a 6 6, J . A l m e 8, T. Alt43 ii, V. Altini5, S. Altinpinar32, C. Andrei17, A. Andronic32, G. Anelli40, V. Angelov43 ii, C. Anson27, T. Antic¿ic ´113, F. Antinori40 iii, S. Antinori13, K. Antipin37, D. Anton ´czyk37, P. Antonioli14, A. Anzo66, L. Aphecetche73, H. Appelsha ¨user37, S. Arcelli13, R. Arceo66, A. Arend37, N. Armesto92, R. Arnaldi102, T. Aronsson74, I.C. Arsene78 iv, A. Asryan98, A. Augustinus40, R. Averbeck32, T.C. Awes76, J. A ¨ysto ¨49, M.D. Azmi2, S. Bablok8, M. Bach36, A. Badala`24, Y.W. Baek50 i, S. Bagnasco102, R. Bailhache32 v, R. Bala101, A. Baldisseri89, A. Baldit26, J. Ba ´n58, R. Barbera23, G.G. Barnafo ¨ldi18, L. Barnby12, V. Barret26, J. Bartke29, F. Barile5, M. Basile13, V. Basmanov94, N. Bastid26, B. Bathen72, G. Batigne73, B. Batyunya35, C. Baumann72 v, I.G. Bearden28, B. Becker20 vi, I. Belikov99, R. Bellwied34, E. Belmont-Moreno66, A. Belogianni4, L. Benhabib73, S. Beole101, I. Berceanu17, A. Bercuci32 vii, E. Berdermann32, Y. Berdnikov39, L. Betev40, A. Bhasin48, A.K. Bhati25, L. Bianchi101, N. Bianchi38, C. Bianchin79, J. Bielc¿ ´ik81, J. Bielc¿ ´ikova ´86, A. Bilandzic3, L. Bimbot77, E. Biolcati101, A. Blanc26, F. Blanco23 viii, F. Blanco63, D. Blau70, C. Blume37, M. Boccioli40, N. Bock27, A. Bogdanov69, H. Bøggild28, M. Bogolyubsky83, J. Bohm96, L. Boldizsa ´r18, M. Bombara12 ix, C. Bombonati79 x, M. Bondila49, H. Borel89, V. Borshchov51, A. Borisov52, C. Bortolin79 xl, S. Bose54, L. Bosisio103, F. Bossu ´101, M. Botje3, S. Bo ¨ttger43, G. Bourdaud73, B. Boyer77, M. Braun98, P. Braun-Munzinger32, 33 ii, L. Bravina78, M. Bregant103 xi, T. Breitner43, G. Bruckner40, R... (2010). Alignment of the ALICE Inner Tracking System with cosmic-ray tracks. JOURNAL OF INSTRUMENTATION, vol. 5; p. 1-36, ISSN: 1748-0221, doi: 10.1088/1748-0221/5/03/P03003

Aamodt, K.bz, Abel, N.aq, Abeysekara, U.ad, Abrahantes Quintana, A.ap, Acero, A.bk, Adamová, D.ch, Aggarwal, M.M.y, Aglieri Rinella, G.an, Agocs, A.G.r, Aguilar Salazar, S.bn, Ahammed, Z.bc, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.ax, Akimoto, R.cv, Akindinov, A.bp, Aleksandrov, D.br, Alessandro, B.cx, Alfaro Molina, R.bn, Alici, A.m, Almaráz Aviña, E.bn, Alme, J.h, Alt, T.aq, Altini, V.e, Altinpinar, S.af, Andrei, C.q, Andronic, A.af, Anelli, G.an, Angelov, V.aq, Anson, C.aa, Anticic, T.di, Antinori, F.an, Antinori, S.m, Antipin, K.ak, Antonczyk, D.ak, Antonioli, P.n, Anzo, A.bn, Aphecetche, L.bu, Appelshäuser, H.ak, Arcelli, S.m, Arceo, R.bn, Arend, A.ak, Armesto, N.cn, Arnaldi, R.cx, Aronsson, T.bv, Arsene, I.C.bz, Asryan, A.ct, Augustinus, A.an, Averbeck, R.af, Awes, T.C.bx, Äystö, J.aw, Azmi, M.D.b, Bablok, S.h, Bach, M.aj, Badalà, A.x, Baek, Y.W.ax, Bagnasco, S.cx, Bailhache, R.af, Bala, R.cw, Baldisseri, A.ck, Baldit, A.z, Bán, J.bf, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.cp, Bastid, N.z, Bathen, B.bt, Batigne, G.bu, Batyunya, B.ai, Baumann, C.bt, Bearden, I.G.ab, Becker, B.t, Belikov, I.cu, Bellwied, R.ah, Belmont-Moreno, E.bn, Belogianni, A.d, Benhabib, L.bu, Beole, S.cw, Berceanu, I.q, Bercuci, A.af, Berdermann, E.af, Berdnikov, Y.am, Betev, L.an, Bhasin, A.av, Bhati, A.K.y, Bianchi, L.cw, Bianchi, N.al, Bianchin, C.ca, Bielcík, J.cc, Bielcíková, J.ch, Bilandzic, A.c, Bimbot, L.by, Biolcati, E.cw, Blanc, A.z, Blanco, F.w, Blanco, F.bk, Blau, D.br, Blume, C.ak, Boccioli, M.an, Bock, N.aa, Bøgdanov, A.bq, Bøggild, H.ab, Bogolyubsky, M.ce, Bohm, J.cr, Boldizsár, L.r, Bombara, M.l, Bombonati, C.ca, Bondila, M.aw, Borel, H.ck, Borshchov, V.ay, Bortolin, C.ca, Bose, S.bb, Bosisio, L.cy, Bossú, F.cw, Botje, M.c, Böttger, S.aq, Bourdaud, G.bu, Boyer, B.by, Braun, M.ct, Braun-Munzinger, P.af ag, Bravina, L.bz, Bregant, M.cy, Breitner, T.aq, Bruckner, G.an, Brun, R.an, Bruna, E.bv, Bruno, G.E.e, Bud... (2010). First proton-proton collisions at the LHC as observed with the ALICE detector: Measurement of the charged-particle pseudorapidity density at vs = 900 GeV . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 65; p. 111-125, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-009-1227-4

AAMODT, K.CA, ABEL, N.AP, ABEYSEKARA, U.BY, ABRAHANTES QUINTANA, A.AO, ABRAMYAN, A.DI, ADAMOVÁ, D.CI, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AM, AGOCS, A.G.R, AGUILAR SALAZAR, S.BM, AHAMMED, Z.BB, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AW, AKIMOTO, R.CW, AKINDINOV, A.BP, ALEKSANDROV, D.BR, ALESSANDRO, B.DB, ALFARO MOLINA, R.BM, ALICI, A.M, ALMARÁZ AVIÑA, E.BM, ALME, J.H, ALT, T.AP, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AM, ANGELOV, V.AP, ANSON, C.AA, ANTIČ, IĆ, , T.DJ, ANTINORI, F.AM, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BM, APHECETCHE, L.BU, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BM, AREND, A.AJ, ARMESTO, N.CO, ARNALDI, R.DB, ARONSSON, T.BV, ARSENE, I.C.CA, ASRYAN, A.CU, AUGUSTINUS, A.AM, AVERBECK, R.AE, AWES, T.C.BX, ÄYSTÖ, J.AV, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AW, BAGNASCO, S.DB, BAILHACHE, R.AE, BALA, R.DA, BALDISSERI, A.CL, BALDIT, A.Z, BÁN, J.BE, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CQ, BASTID, N.Z, BATHEN, B.BT, BATIGNE, G.BU, BATYUNYA, B.AH, BAUMANN, C.BT, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CV, BELLWIED, R.AG, BELMONT-MORENO, E.BM, BELOGIANNI, A.D, BENHABIB, L.BU, BEOLE, S.DA, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AL, BETEV, L.AM, BHASIN, A.AU, BHATI, A.K.Y, BIANCHI, L.DA, BIANCHI, N.AK, BIANCHIN, C.CB, BIELČ, ÍK, J.CD, BIELČ, ÍKOVÁ, J.CI, BILANDZIC, A.C, BIMBOT, L.BZ, BIOLCATI, E.DA, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BK, BLAU, D.BR, BLUME, C.AJ, BOCCIOLI, M.AM, BOCK, N.AA, BOGDANOV, A.BQ, BØGGILD, H.AB, BOGOLYUBSKY, M.CF, BOHM, J.CS, BOLDIZSÁR, L.R, BOMBARA, M.BD, BOMBONATI, C.CB, BONDILA, M.AV, BOREL, H.CL, BORSHCHOV, V.AX, BORISOV, A.AY, BORTOLIN, C.CB, BOSE, S.BA, BOSISIO, L.CX, BOSSÚ, F.DA, BOTJE, M.C, BÖTTGER, S.AP, BOURDAUD, G.BU, BOYER, B.BZ, BRAUN, M.CU, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.CA, BREGANT, M.CX, BREITNER, T.AP, BRUCKNER, G.AM, BRUN, R.AM, BRUNA, E.BV, BRUNO, G.E.E, BUDNIKOV, D.CQ, BUESCHING, H.AJ, BUNCIC, P.AM, BUSCH, O.AQ, BUTHELEZI, Z.V, CAFFARRI, D.CB, CAI, X.DH, CAINES, H.BV, CAMACHO, E.BN, CAMERINI, P.CX, CAMPBELL, M.AM, CANOA ROMAN, V.AM, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AM, CARENA, W.AM, CARMIN... (2010). Charged-particle multiplicity measurement in proton-proton collisions at √s 0.9 and 2.36 TeV with ALICE at LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (1); p. 89-108, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1339-x

AAMODT, K.BZ, ABEL, N.AQ, ABEYSEKARA, U.BX, ABRAHANTES QUINTANA, A.AP, ABRAMYAN, A.DH, ADAMOVÁ, D.CH, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AN, AGOCS, A.G.R, AGUILAR SALAZAR, S.BL, AHAMMED, Z.BA, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AL, AKIMOTO, R.CV, AKINDINOV, A.BO, ALEKSANDROV, D.BQ, ALESSANDRO, B.DA, ALFARO MOLINA, R.BL, ALICI, A.M, ALMARÁZ AVIÑA, E.BL, ALME, J.H, ALT, T.AQ, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AN, ANGELOV, V.AQ, ANSON, C.AA, ANTIČ, IĆ, , T.DI, ANTINORI, F.AN, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BL, APHECETCHE, L.BT, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BL, AREND, A.AJ, ARMESTO, N.CN, ARNALDI, R.DA, ARONSSON, T.BU, ARSENE, I.C.BZ, ASRYAN, A.CT, AUGUSTINUS, A.AN, AVERBECK, R.AE, AWES, T.C.BW, ÄYSTÖ, J.AW, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AL, BAGNASCO, S.DA, BAILHACHE, R.AE, BALA, R.CZ, BALDISSERI, A.CK, BALDIT, A.Z, BÁN, J.BD, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E, BASILE, M.M, BASMANOV, V.CP, BASTID, N.Z, BATHEN, B.BS, BATIGNE, G.BT, BATYUNYA, B.AH, BAUMANN, C.BS, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CU, BELLWIED, R.AG, BELMONT-MORENO, E.BL, BELOGIANNI, A.D, BENHABIB, L.BT, BEOLE, S.CZ, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AM, BETEV, L.AN, BHASIN, A.AV, BHATI, A.K.Y, BIANCHI, L.CZ, BIANCHI, N.AK, BIANCHIN, C.CA, BIELČ, ÍK, J.CC, BIELČ, ÍKOVÁ, J.CH, BILANDZIC, A.C, BIMBOT, L.BY, BIOLCATI, E.CZ, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BJ, BLAU, D.BQ, BLUME, C.AJ, BOCCIOLI, M.AN, BOCK, N.AA, BOGDANOV, A.BP, BØGGILD, H.AB, BOGOLYUBSKY, M.CE, BOHM, J.CR, BOLDIZSÁR, L.R, BOMBARA, M.BC, BOMBONATI, C.CA, BONDILA, M.AW, BOREL, H.CK, BORISOV, A.AX, BORTOLIN, C.CA, BOSE, S.AZ, BOSISIO, L.CW, BOSSÚ, F.CZ, BOTJE, M.C, BÖTTGER, S.AQ, BOURDAUD, G.BT, BOYER, B.BY, BRAUN, M.CT, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.BZ, BREGANT, M.CW, BREITNER, T.AQ, BRUCKNER, G.AN, BRUN, R.AN, BRUNA, E.BU, BRUNO, G.E.E, BUDNIKOV, D.CP, BUESCHING, H.AJ, BUNCIC, P.AN, BUSCH, O.AR, BUTHELEZI, Z.V, CAFFARRI, D.CA, CAI, X.DG, CAINES, H.BU, CAMACHO, E.BM, CAMERINI, P.CW, CAMPBELL, M.AN, ROMAN, V.C.AN, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AN, CARENA, W.AN, CARMINATI, F.AN, CASANOVA D... (2010). Charged-particle multiplicity measurement in proton-proton collisions at √s = 7 TeV with ALICE at LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (3); p. 345-354, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1350-2

AAMODT, K.A, ABEL, N.B, ABEYSEKARA, U.C, ABRAHANTES QUINTANA, A.D, ABRAMYAN, A.E, ADAMOVÁ, D.F, AGGARWAL, M.M.G, AGLIERI RINELLA, G.H, AGOCS, A.G.I, AGUILAR SALAZAR, S.J, AHAMMED, Z.K, AHMAD, A.L, AHMAD, N.L, AHN, S.U.M AK, AKIMOTO, R.N, AKINDINOV, A.O, ALEKSANDROV, D.P, ALESSANDRO, B.Q, ALFARO MOLINA, R.J, ALICI, A.R, ALMARÁZ AVIÑA, E.J, ALME, J.S, ALT, T.B AG, ALTINI, V.T, ALTINPINAR, S.U, ANDREI, C.V, ANDRONIC, A.U, ANELLI, G.H, ANGELOV, V.B AG, ANSON, C.W, ANTIČ, IĆ, , T.X, ANTINORI, F.H CD, ANTINORI, S.R, ANTIPIN, K.Y, ANTOń, CZYK, D.Y, ANTONIOLI, P.Z, ANZO, A.J, APHECETCHE, L.AA, APPELSHÄUSER, H.Y, ARCELLI, S.R, ARCEO, R.J, AREND, A.Y, ARMESTO, N.AB, ARNALDI, R.Q, ARONSSON, T.AC, ARSENE, I.C.A U, ASRYAN, A.AD, AUGUSTINUS, A.H, AVERBECK, R.U, AWES, T.C.AE, ÄYSTÖ, J.AF, AZMI, M.D.L, BABLOK, S.S, BACH, M.AG, BADALÀ, A.AH, BAEK, Y.W.M AK, BAGNASCO, S.Q, BAILHACHE, R.U Y, BALA, R.AI, BALDISSERI, A.AJ, BALDIT, A.AK, BÁN, J.AL, BARBERA, R.AM, BARNAFÖLDI, G.G.I, BARNBY, L.S.AN, BARRET, V.AK, BARTKE, J.AO, BARILE, F.T, BASILE, M.R, BASMANOV, V.AP, BASTID, N.AK, BATHEN, B.AQ, BATIGNE, G.AA, BATYUNYA, B.AR, BAUMANN, C.Y AQ, BEARDEN, I.G.AS, BECKER, B.AT BO, BELIKOV, I.AU, BELLWIED, R.AV, BELMONT-MORENO, E.J, BELOGIANNI, A.AW, BENHABIB, L.AA, BEOLE, S.AI, BERCEANU, I.V, BERCUCI, A.U V, BERDERMANN, E.U, BERDNIKOV, Y.AX, BETEV, L.H, BHASIN, A.AY, BHATI, A.K.G, BIANCHI, L.AI, BIANCHI, N.AZ, BIANCHIN, C.BA, BIELČ, ÍK, J.BB, BIELČ, ÍKOVÁ, J.F, BILANDZIC, A.BC, BIMBOT, L.BD, BIOLCATI, E.AI, BLANC, A.AK, BLANCO, F.AC CM, BLANCO, F.BE, BLAU, D.P, BLUME, C.Y, BOCCIOLI, M.H, BOCK, N.W, BOGDANOV, A.BF, BØGGILD, H.AS, BOGOLYUBSKY, M.BG, BOHM, J.BH, BOLDIZSÁR, L.I, BOMBARA, M.BI, BOMBONATI, C.H BA, BONDILA, M.AF, BOREL, H.AJ, BORISOV, A.BJ, BORTOLIN, C.BA DJ, BOSE, S.BK, BOSISIO, L.BL, BOSSÚ, F.AI, BOTJE, M.BC, BÖTTGER, S.B, BOURDAUD, G.AA, BOYER, B.BD, BRAUN, M.AD, BRAUN-MUNZINGER, P.U AG BM, BRAVINA, L.A, BREGANT, M.AF BL, BREITNER, T.B, BRUCKNER, G.H, BRUN, R.H, BRUNA, E.AC, BRUNO, G.E.T, BUDNIKOV, D.AP, BUESCHING, H.Y, BUNCIC, P.H, BUSCH, O.BN, BUTHELEZI, Z.BO, CAFFARRI, D.BA, CAI, X.BP, CAINES, H.AC, CALVO, E.BQ, CAMACHO, E.BR, CAMERINI, P.BL, CAMPBELL, M.H, CANOA ROMAN, V.H, CAPITANI, G.P.AZ, CARA ROMEO, G.Z, CARENA, F.H, CARENA, W.H, CARMINATI, F.H... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at √s=0.9 and 7 TeV measured by the ALICE experiment. PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

AAMODT, K.BY, ABEL, N.AQ, ABEYSEKARA, U.BW, ABRAHANTES QUINTANA, A.AP, ABRAMYAN, A.DH, ADAMOVÁ, D.CG, AGGARWAL, M.M.Y, AGLIERI RINELLA, G.AN, AGOCS, A.G.R, AGUILAR SALAZAR, S.BK, AHAMMED, Z.BA, AHMAD, A.B, AHMAD, N.B, AHN, S.U.AL, AKIMOTO, R.CU, AKINDINOV, A.BN, ALEKSANDROV, D.BP, ALESSANDRO, B.CZ, ALFARO MOLINA, R.BK, ALICI, A.M, ALMARÁZ AVIÑA, E.BK, ALME, J.H, ALT, T.AQ, ALTINI, V.E, ALTINPINAR, S.AE, ANDREI, C.Q, ANDRONIC, A.AE, ANELLI, G.AN, ANGELOV, V.AQ, ANSON, C.AA, ANTIČ, IĆ, , T.DI, ANTINORI, F.AN, ANTINORI, S.M, ANTIPIN, K.AJ, ANTOń, CZYK, D.AJ, ANTONIOLI, P.N, ANZO, A.BK, APHECETCHE, L.BS, APPELSHÄUSER, H.AJ, ARCELLI, S.M, ARCEO, R.BK, AREND, A.AJ, ARMESTO, N.CM, ARNALDI, R.CZ, ARONSSON, T.BT, ARSENE, I.C.BY, ASRYAN, A.CS, AUGUSTINUS, A.AN, AVERBECK, R.AE, AWES, T.C.BV, ÄYSTÖ, J.AW, AZMI, M.D.B, BABLOK, S.H, BACH, M.AI, BADALÀ, A.X, BAEK, Y.W.AL, BAGNASCO, S.CZ, BAILHACHE, R.AE, BALA, R.CY, BALDISSERI, A.CJ, BALDIT, A.Z, BÁN, J.BD, BARBERA, R.W, BARNAFÖLDI, G.G.R, BARNBY, L.L, BARRET, V.Z, BARTKE, J.AC, BARILE, F.E,

BASILE, M.M, BASMANOV, V.CO, BASTID, N.Z, BATHEN, B.BR, BATIGNE, G.BS, BATYUNYA, B.AH, BAUMANN, C.BR, BEARDEN, I.G.AB, BECKER, B.T, BELIKOV, I.CT, BELLWIED, R.AG, BELMONT-MORENO, E.BK, BELOGIANNI, A.D, BENHABIB, L.BS, BEOLE, S.CY, BERCEANU, I.Q, BERCUCI, A.AE, BERDERMANN, E.AE, BERDNIKOV, Y.AM, BETEV, L.AN, BHASIN, A.AV, BHATI, A.K.Y, BIANCHI, L.CY, BIANCHI, N.AK, BIANCHIN, C.BZ, BIELč, ÍK, J.CB, BIELč, ÍKOVÁ, J.CG, BILANDZIC, A.C, BIMBOT, L.BX, BIOLCATI, E.CY, BLANC, A.Z, BLANCO, F.W, BLANCO, F.BI, BLAU, D.BP, BLUME, C.AJ, BOCCIOLI, M.AN, BOCK, N.AA, BOGDANOV, A.BO, BØGGILD, H.AB, BOGOLYUBSKY, M.CD, BOHM, J.CQ, BOLDIZSÁR, L.R, BOMBARA, M.BC, BOMBONATI, C.BZ, BONDILA, M.AW, BOREL, H.CJ, BORISOV, A.AX, BORTOLIN, C.BZ, BOSE, S.AZ, BOSISIO, L.CV, BOSSÚ, F.CY, BOTJE, M.C, BÖTTGER, S.AQ, BOURDAUD, G.BS, BOYER, B.BX, BRAUN, M.CS, BRAUN-MUNZINGER, P.AE AF, BRAVINA, L.BY, BREGANT, M.CV, BREITNER, T.AQ, BRUCKNER, G.AN, BRUN, R.AN, BRUNA, E.BT, BRUNO, G.E.E, BUDNIKOV, D.CO, BUESCHING, H.AJ, BUNCIC, P.AN, BUSCH, O.AR, BUTHELEZI, Z.V, CAFFARRI, D.BZ, CAI, X.DG, CAINES, H.BT, CALVO, E.BF, CAMACHO, E.BL, CAMERINI, P.CV, CAMPBELL, M.AN, CANOA ROMAN, V.AN, CAPITANI, G.P.AK, CARA ROMEO, G.N, CARENA, F.AN, CARENA, W.AN, CARMINATI, ... (2010). Transverse momentum spectra of charged particles in proton-proton collisions at √s=900 GeV with ALICE at the LHC. PHYSICS LETTERS. SECTION B, vol. 693 (2); p. 53-68, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.026

K. Aamodt, 1 N. Abel, 2 U. Abeysekara, 3 A. Abrahantes Quintana, 4 A. Abramyan, 5 D. Adamova´, 6 M. M. Aggarwal, 7

G. Aglieri Rinella, 8 A. G. Agocs, 9 S. Aguilar Salazar, 10 Z. Ahammed, 11 A. Ahmad, 12 N. Ahmad, 12 S. U. Ahn, 13, b

R. Akimoto, 14 A. Akindinov, 15 D. Aleksandrov, 16 B. Alessandro, 17 R. Alfaro Molina, 10 A. Alici, 18

E. Almara´z Avin˜a, 10 J. Alme, 19 T. Alt, 2, c V. Altini, 20 S. Altinpinar, 21 C. Andrei, 22 A. Andronic, 21 G. Anelli, 8 V. Angelov, 2, c C. Anson, 23 T. Antic¿ic´, 24 F. Antinori, 8, d S. Antinori, 18 K. Antipin, 25 D. Anton´czyk, 25 P. Antonioli, 26

A. Anzo, 10 L. Aphecetche, 27 H. Appelsha¨user, 25 S. Arcelli, 18 R. Arceo, 10 A. Arend, 25 N. Armesto, 28 R. Arnaldi, 17

T. Aronsson, 29 I. C. Arsene, 1, e A. Asryan, 30 A. Augustinus, 8 R. Averbeck, 21 T. C. Awes, 31 J. A¨ ysto¨, 32 M. D. Azmi, 12

S. Bablok, 19 M. Bach, 33 A. Badala`, 34 Y.W. Baek, 13, b S. Bagnasco, 17 R. Bailhache, 21, f R. Bala, 35 A. Baldisseri, 36

A. Baldit, 37 J. Ba´n, 38 R. Barbera, 39 G. G. Barnafo¨ldi, 9 L. S. Barnby, 40 V. Barret, 37 J. Bartke, 41 F. Barile, 20 M. Basile, 18

V. Basmanov, 42 N. Bastid, 37 B. Bathen, 43 G. Batigne, 27 B. Batyunya, 44 C. Baumann, 43, f I. G. Bearden, 45

B. Becker, 46, g I. Belikov, 47 R. Bellwied, 48 E. Belmont-Moreno, 10 A. Belogianni, 49 L. Benhabib, 27 S. Beole, 35

I. Berceanu, 22 A. Bercuci, 21, h E. Berdermann, 21 Y. Berdnikov, 50 L. Betev, 8 A. Bhasin, 51 A. K. Bhati, 7 L. Bianchi, 35

N. Bianchi, 52 C. Bianchin, 53 J. Bielc¿i´k, 54 J. Bielc¿i´kova´, 6 A. Bilandzic, 55 L. Bimbot, 56 E. Biolcati, 35 A. Blanc, 37

F. Blanco, 39, i F. Blanco, 57 D. Blau, 16 C. Blume, 25 M. Boccioli, 8 N. Bock, 23 A. Bogdanov, 58 H. Bøggild, 45

M. Bogolyubsky, 59 J. Bohm, 60 L. Boldizsa´r, 9 M. Bombara, 61 C. Bombonati, 53, j M. Bondila, 32 H. Borel, 36

A. Borisov, 62 C. Bortolin, 53, k S. Bose, 63 L. Bosisio, 64 F. Bossu´, 35 M. Botje, 55 S. Bo¨ttger, 2 G. Bourdaud, 27 B. Boyer, 56

M. Braun, 30 P. Braun-Munzinger, 21, 65, c L. Bravina, 1 M. ... (2010). Two-pion Bose-Einstein correlations in pp collisions at s = 900 GeV. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 82; p. 052001-1-052001-14, ISSN: 1550-7998, doi: 10.1103/PhysRevD.82.052001

ALICE collaboration: K. Aamodt, B. Abelev, A. Abrahantes Quintana, D. Adamová, A.M. Adare, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, S. Aguilar Salazar, Z. Ahammed, A. Ahmad Masoodi, N. Ahmad, S.U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, C. Anson, T. Antivcic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Äystö, M.D. Azmi, M. Bach, A. Badalà, Y.W. Baek, S. Bagnasco, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. Barbera, F. Barile, G.G. Barnaföldi, L.S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, S. Beole, I. Berceanu, A. Bercuci, E. Berdermann, Y. Berdnikov, C. Bergmann, L. Betev, A. Bhasin, A.K. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielvcík, J. Bielvc'iková, A. Bilandzic, E. Biolcati, A. Blanc, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Boggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, C. Bombonati, J. Book, H. Borel, A. Borissov, C. Bortolin, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, P. Braun-Munzinger, L. Bravina, M. Bregant, T. Breitner, M. Broz, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, F. Carena, W. Carena, F. Carminati, A. Casanova D'iaz, M. Caselle, J. Castillo Castellanos, V. Catanescu, C. Cavicchioli, J. Cepila, P. Cerello, B. Chang, S. Chapeland, J.L. Charvet, S. Chattopadhyay, S. Chattopadhyay, M. Cherney, C. Cheshkov, B. Cheynis, E. Chiavassa, V. Chi... (2010). Charged-particle multiplicity density at mid-rapidity

in central Pb-Pb collisions at vsNN = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 105/2010; p. 252301-1-252301-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.252301

K. Aamodt a, A. Abrahantes Quintana b, D. Adamovác, A.M. Adared, M.M. Aggarwal e, G. Aglieri Rinella f, A.G. Agocs g, S. Aguilar Salazar h, Z. Ahammed i, N. Ahmadj, A. Ahmad Masoodi j, S.U. Ahnk, 1, A. Akindinov l, D. Aleksandrovm, B. Alessandro n, R. Alfaro Molina h, A. Alici o, 2, A. Alkinp, E. Almaráz Aviña h, T. Altq, V. Altini r, S. Altinpinar s, I. Altsybeevt, C. Andrei u, A. Andronic s, V. Anguelov v, 3, 1, C. Anson w, T. Anti¿ci ´c x, F. Antinori y, P. Antonioli z, L. Aphecetcheaa, H. Appelshäuser ab, *, N. Arborac, S. Arcelli o, A. Arendab, N. Armestoad, R. Arnaldi n, T. Aronsson d, I.C. Arsene s, A. Asryant, A. Augustinus f, R. Averbecks, T.C. Awesae, J. Äystöaf, M.D. Azmi j, M. Bachq, A. Badalà ag, Y.W. Baekk, 1, S. Bagnascon, R. Bailhache ab, R. Balaah, 5, R. Baldini Ferroli ai, A. Baldisseri aj, A. Baldit ak, J. Bánal, R. Barberaam, F. Barile r, G.G. Barnaföldi g, L.S. Barnby an, V. Barretak, J. Bartkeao, M. Basile o, N. Bastidak, B. Bathenap, G. Batigne aa, B. Batyunyaaq, C. Baumannab, I.G. Bearden ar, H. Beck ab, I. Belikovas, F. Bellini o, R. Bellwied at, 6, E. Belmont-Moreno h, S. Beoleah, I. Berceanuu, A. Bercuci u, E. Berdermanns, Y. Berdnikovau, L. Betevf, A. Bhasinav, A.K. Bhati e, L. Bianchi ah, N. Bianchi aw, C. Bianchin y, J. Biel¿cík ax, J. Biel¿cíková c, A. Bilandzic ay, E. Biolcati ah, A. Blancak, F. Blanco az, F. Blancoba, D. Blaum, C. Blumeab, M. Boccioli f, N. Bockw, A. Bogdanovbb, H. Bøggild ar, M. Bogolyubsky bc, L. Boldizsárg, M. Bombarabd, C. Bombonati y, J. Book ab, H. Borel aj, C. Bortoliny, 7, S. Bose be, F. Bossú ah, M. Botjeay, S. Böttger v, B. Boyerbf, P. Braun-Munzinger s, L. Bravina bg, M. Bregant bh, 8, T. Breitner v, M. Brozbi, R. Brunf, E. Bruna d, G.E. Bruno r, D. Budnikovbj, H. Buesching ab, O. Busch bk, Z. Buthelezi bl, D. Caffarri y, X. Cai bm, H. Cainesd, E. Calvo Villar bn, P. Camerini bh, V. Canoa Roman f, 9, 1, G. Cara Romeoz, F. Carenaf, W. Carenaf, F. Carminati f, A. Casanova Díaz aw, M. Caselle f, J. Castill... (2011). Suppression of charged particle production at large transverse momentum in central Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICS LETTERS. SECTION B, vol. 696/2011; p. 30-39, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.12.020

K. Aamodt a, A. Abrahantes Quintana b, D. Adamovác, A.M. Adared, M.M. Aggarwal e, G. Aglieri Rinella f, A.G. Agocs g, S. Aguilar Salazar h, Z. Ahammed i, N. Ahmadj, A. Ahmad Masoodi j, S.U. Ahnk, 1, A. Akindinov l, D. Aleksandrovm, B. Alessandro n, R. Alfaro Molina h, A. Alici o, 2, 3, A. Alkinp, E. Almaráz Aviña h, T. Altq, V. Altini r, 4, S. Altinpinar s, I. Altsybeevt, C. Andrei u, A. Andronic s, V. Anguelov v, 5, C. Anson w, T. Anti¿ci ´c x, F. Antinori y, P. Antonioli z, L. Aphecetcheaa, H. Appelshäuser ab, N. Arbor ac, S. Arcelli o, A. Arendab, N. Armestoad, R. Arnaldi n, T. Aronsson d, I.C. Arsene s, A. Asryant, A. Augustinus f, R. Averbecks, T.C. Awesae, J. Äystöaf, M.D. Azmi j, M. Bachq, A. Badalà ag, Y.W. Baekk, 1, S. Bagnasco n, R. Bailhache ab, R. Balaah, 6, R. Baldini Ferroli ai, A. Baldisseri aj, A. Balditak, J. Bánal, R. Barbera am, F. Barile r, G.G. Barnaföldi g, L.S. Barnby an, V. Barretak, J. Bartkeao, M. Basile o, N. Bastidak, B. Bathen ap, G. Batigne aa, B. Batyunyaaq, C. Baumannab, I.G. Bearden ar, H. Beckab, I. Belikovas, F. Bellini o, R. Bellwied at, 7, E. Belmont-Moreno h, S. Beoleah, I. Berceanuu, A. Bercuci u, E. Berdermanns, Y. Berdnikov au, L. Betevf, A. Bhasinav, A.K. Bhati e, L. Bianchi ah, N. Bianchi aw, C. Bianchin ax, J. Biel¿cík ay, J. Biel¿cíková c, A. Bilandzic az, E. Biolcati f, 8, A. Blancak, F. Blancoba, F. Blancobb, D. Blaum, C. Blumeab, M. Boccioli f, N. Bockw, A. Bogdanovbc, H. Bøggild ar, M. Bogolyubsky bd, L. Boldizsárg, M. Bombarabe, C. Bombonati ax, J. Book ab, H. Borel aj, C. Bortolinax, 9, S. Bose bf, F. Bossú f, 8, M. Botjeaz, S. Böttger v, B. Boyer bg, P. Braun-Munzinger s, L. Bravina bh, M. Bregantbi, 10, T. Breitner v, M. Brozbj, R. Brunf, E. Bruna d, G.E. Bruno r, D. Budnikovbk, H. Buesching ab, O. Buschbl, Z. Buthelezi bm, D. Caffarri ax, X. Cai bn, H. Cainesd, E. Calvo Villar bo, P. Camerini bi, V. Canoa Romanf, 11, 12, G. Cara Romeoz, F. Carenaf, W. Carena f, F. Carminati f, A. Casanova Díaz aw, M. Caselle f... (2011). Two-pion Bose–Einstein correlations in central Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICS LETTERS. SECTION B, vol. 696; p. 328-337, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.12.053

K. Aamodt1, A. Abrahantes Quintana2, D. Adamov´a3, A.M. Adare4, M.M. Aggarwal5, G. Aglieri Rinella6, A.G. Agocs7, S. Aguilar Salazar8, Z. Ahammed9, N. Ahmad10, A. Ahmad Masoodi10, S.U. Ahn11, i, A. Akindinov12, D. Aleksandrov13, B. Alessandro14, R. Alfaro Molina8, A. Alici15, ii, A. Alkin16, E. Almar´az Avi˜na8, T. Alt17, V. Altini18, S. Altinpinar19, I. Altsybeev20, C. Andrei21, A. Andronic19, V. Anguelov22, iii, iv, C. Anson23, T. Anti¿ci´c24, F. Antinori25, P. Antonioli26, L. Aphecetche27, H. Appelsh¨auser28, N. Arbor29, S. Arcelli15, A. Arend28, N. Armesto30, R. Arnaldi14, T. Aronsson4, I.C. Arsene19, A. Asryan20, A. Augustinus6, R. Averbeck19, T.C. Awes31, J. A¨ ysto¨32, M.D. Azmi10, M. Bach17, A. Badal`a33, Y.W. Baek11, i, S. Bagnasco14, R. Bailhache28, R. Bala34, v, R. Baldini Ferroli35, A. Baldisseri36, A. Baldit37, J. B´an38, R. Barbera39, F. Barile18, G.G. Barnaf¨oldi7, L.S. Barnby40, V. Barret37, J. Bartke41, M. Basile15, N. Bastid37, B. Bathen42, G. Batigne27, B. Batyunya43, C. Baumann28, I.G. Bearden44, H. Beck28, I. Belikov45, F. Bellini15, R. Bellwied46, vi, E. Belmont-Moreno8, S. Beole34, I. Berceanu21, A. Bercuci21, E. Berdermann19, Y. Berdnikov47, L. Betev6, A. Bhasin48, A.K. Bhati5, L. Bianchi34, N. Bianchi49, C. Bianchin25, J. Biel¿c´ik50, J. Biel¿c´ikov´a3, A. Bilandzic51, E. Biolcati34, A. Blanc37, F. Blanco52, F. Blanco53, D. Blau13, C. Blume28, M. Boccioli6, N. Bock23, A. Bogdanov54, H. Bøggild44, M. Bogolyubsky55, L. Boldizs´ar7, M. Bombara56, C. Bombonati25, J. Book28, H. Borel36, C. Bortolin25, vii, S. Bose57, F. Boss´u34, M. Botje51, S. B¨ottger22, B. Boyer58, P. Braun-Munzinger19, L. Bravina59, M. Bregant60, viii, T. Breitner22, M. Broz61, R. Brun6, E. Bruna4, G.E. Bruno18, D. Budnikov62, H. Buesching28, O. Busch63, Z. Buthelezi64, D. Caffarri25, X. Cai65, H. Caines4, E. Calvo Villar66, P. Camerini60, V. Canoa Roman6, ix, x, G. Cara Romeo26, F. Carena6, W. Carena6, F. Carminati6, A. Casanova D´iaz49, M. Caselle6, J. Castillo Castellan... (2011). Centrality dependence of the charged-particle multiplicity density

at mid-rapidity in Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 106; p. 032301-1-032301-10, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.106.032301

K. Aamodt, 1 B. Abelev, 2 A. Abrahantes Quintana, 3 D. Adamova´, 4 A. M. Adare, 5 M. M. Aggarwal, 6

G. Aglieri Rinella, 7 A. G. Agocs, 8 A. Agostinelli, 9 S. Aguilar Salazar, 10 Z. Ahammed, 11 N. Ahmad, 12

A. Ahmad Masoodi, 12 S. U. Ahn, 13, 14 A. Akindinov, 15 D. Aleksandrov, 16 B. Alessandro, 17 R. Alfaro Molina, 10

A. Alici, 9, 7, 18 A. Alkin, 19 E. Almara´z Avin˜a, 10 T. Alt, 20 V. Altini, 21, 7 I. Altsybeev, 22 C. Andrei, 23 A. Andronic, 24

V. Anguelov, 20, 25 C. Anson, 26 T. Antic¿ic´, 27 F. Antinori, 28 P. Antonioli, 29 L. Aphecetche, 30 H. Appelsha¨user, 31

N. Arbor, 32 S. Arcelli, 9 A. Arend, 31 N. Armesto, 33 R. Arnaldi, 17 T. Aronsson, 5 I. C. Arsene, 24 M. Arslandok, 31

A. Asryan, 22 A. Augustinus, 7 R. Averbeck, 24 T. C. Awes, 34 J. A¨ ysto¨, 35 M. D. Azmi, 12 M. Bach, 20 A. Badala`, 36

Y.W. Baek, 13, 14 R. Bailhache, 31 R. Bala, 17 R. Baldini Ferroli, 18 A. Baldisseri, 37 A. Baldit, 13 J. Ba´n, 38 R. C. Baral, 39

R. Barbera, 40 F. Barile, 21 G. G. Barnafo¨ ldi, 8 L. S. Barnby, 41 V. Barret, 13 J. Bartke, 42 M. Basile, 9 N. Bastid, 13

B. Bathen, 43 G. Batigne, 30 B. Batyunya, 44 C. Baumann, 31 I. G. Bearden, 45 H. Beck, 31 I. Belikov, 46 F. Bellini, 9

R. Bellwied, 47, 48 E. Belmont-Moreno, 10 S. Beole, 49 I. Berceanu, 23 A. Bercuci, 23 E. Berdermann, 24 Y. Berdnikov, 50

C. Bergmann, 43 L. Betev, 7 A. Bhasin, 51 A. K. Bhati, 6 L. Bianchi, 49 N. Bianchi, 52 C. Bianchin, 53 J. Bielc¿i´k, 54

J. Bielc¿i´kova´, 4 A. Bilandzic, 55 E. Biolcati, 7, 49 F. Blanco, 48 F. Blanco, 56 D. Blau, 16 C. Blume, 31 M. Boccioli, 7

N. Bock, 26 A. Bogdanov, 57 H. Bøggild, 45 M. Bogolyubsky, 58 L. Boldizsa´r, 8 M. Bombara, 41, 59 C. Bombonati, 53

J. Book, 31 H. Borel, 37 A. Borissov, 47 C. Bortolin, 53 S. Bose, 60 F. Bossu´, 7, 49 M. Botje, 55 S. Bo¨ttger, 61 B. Boyer, 62

P. Braun-Munzinger, 24 L. Bravina, 63 M. Bregant, 30 T. Breitner, 61 M. Broz, 64 R. Brun, 7 E. Bruna, 5 G. E. Bruno, 21

D. Budnikov, 65 H. Buesching, 31 S. Bufalino, 49 K. Bugaiev, 19 O. Bus... (2011). Higher harmonic anisotropic flow measurements of charged particles in Pb-Pb collisions at vsNN=2.76 TeV. PHYSICAL REVIEW LETTERS, vol. 107/2011; p. 032301-1-032301-10, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.107.032301

K. Aamodt 1, A. Abrahantes Quintana 2, D. Adamová3, A.M. Adare4, M.M. Aggarwal 5, G. Aglieri Rinella 6, A.G. Agocs 7, A. Agostinelli 8, S. Aguilar Salazar 9, Z. Ahammed 10, N. Ahmad11, A. Ahmad Masoodi 11, S.U. Ahn 12, i, A. Akindinov 13, D. Aleksandrov14, B. Alessandro 15, R. Alfaro Molina 9, A. Alici 16, A. Alkin 17, E. Almaráz Aviña 9, J. Alme18, T. Alt19, V. Altini 20, ii, I. Altsybeev21, C. Andrei 22, A. Andronic 23, V. Anguelov 19, iii, C. Anson 24, T. Anti¿ci ´c 25, F. Antinori 26, P. Antonioli 27, L. Aphecetche28, H. Appelshäuser 29, N. Arbor30, S. Arcelli 8, A. Arend29, N. Armesto31, R. Arnaldi 15, T. Aronsson 4, I.C. Arsene 23, A. Asryan21, A. Augustinus 6, R. Averbeck23, T.C. Awes32, J. Äystö33, M.D. Azmi 11, M. Bach 19, A. Badalà 34, Y.W. Baek12, i, R. Bailhache 29, R. Bala15, R. Baldini Ferroli 16, A. Baldisseri 35, A. Baldit 36, J. Bán37, R. Barbera38, F. Barile 20, G.G. Barnaföldi 7, L.S. Barnby 39, V. Barret36, J. Bartke40, M. Basile 8, N. Bastid36, B. Bathen41, G. Batigne 28, B. Batyunya42, C. Baumann29, I.G. Bearden 43, H. Beck 29, I. Belikov44, F. Bellini 8, R. Bellwied 45, E. Belmont-Moreno 9, S. Beole46, I. Berceanu22, A. Bercuci 22, E. Berdermann23, Y. Berdnikov47, C. Bergmann 41, L. Betev6, A. Bhasin48, A.K. Bhati 5, L. Bianchi 46, N. Bianchi 49, C. Bianchin 50, J. Biel¿cík 51, J. Biel¿cíková 3, A. Bilandzic 52, E. Biolcati 46, A. Blanc 36, F. Blanco53, F. Blanco45, D. Blau14, C. Blume29, N. Bock24, A. Bogdanov54, H. Bøggild 43, M. Bogolyubsky 55, L. Boldizsár7, M. Bombara56, C. Bombonati 50, J. Book 29, H. Borel 35, A. Borissov 57, C. Bortolin 50, iv, S. Bose 58, F. Bossú 6, v, M. Botje52, S. Böttger 59, B. Boyer60, P. Braun-Munzinger 23, L. Bravina 61, M. Bregant28, T. Breitner 59, M. Broz62, R. Brun6, E. Bruna 4, G.E. Bruno 20, D. Budnikov63, H. Buesching 29, S. Bufalino 46, O. Busch64, Z. Buthelezi 65, D. Caffarri 50, X. Cai 66, H. Caines4, E. Calvo Villar 67, P. Camerini 68, V. Canoa Roman69, vi, G. Cara Romeo27, F. Carena6, W. Carena6... (2011). Rapidity and transverse momentum dependence of inclusive J/¿

production in pp collisions at vs = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 2011; p. 442-455, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.09.054

Aamodt, K. Abrahantes Quintana, A. Adamova, D. Adare, A.M. Aggarwal, M.M. Rinella, G.Aglieri Agocs, A.G. Salazar, S.Aguilar Ahammed, Z. Ahmad, N. Masoodi, A.Ahmad Ahn, S.U. Akindinov, A. Aleksandrov, D. Alessandro, B. Molina, R.Alfaro Alici, A. Alkin, A. Avina, E.Almaraz Alt, T. Altini, V. Altinpinar, S. Altsybeev, I. Andrei, C. Andronic, A. Anguelov, V. Anson, C. Anticic, T. Antinori, F. Antonioli, P. Aphecetche, L. Appelshauser, H. Arbor, N. Arcelli, S. Arend, A. Armesto, N. Arnaldi, R. Aronsson, T. Arsene, I.C. Asryan, A. Augustinus, A. Averbeck, R. Awes, T.C. Aysto, J. Azmi, M.D. Bach, M. Badala, A. Baek, Y.W. Bagnasco, S. Bailhache, R. Bala, R. Ferroli, R.Baldini Baldisseri, A. Baldit, A. Ban, J. Barbera, R. Barile, F. Barnafoldi, G.G. Barnby, L.S. Barret, V. Bartke, J. Basile, M. Bastid, N. Bathen, B. Batigne, G. Batyunya, B. Baumann, C. Bearden, I.G. Beck, H. Belikov, I. Bellini, F. Bellwied, R. Beole, S. Berceanu, I. Bercuci, A. Berdermann, E. Berdnikov, Y. Betev, L. Bhasin, A. Bhati, A.K. Bianchi, L. Bianchi, N. Bianchin, C. Bielcik, J. Bielcikova, J. Bilandzic, A. Biolcati, E. Blanc, A. Blanco, F. Blanco, F. Blau, D. Blume, C. Boccioli, M. Bock, N. Bogdanov, A. Boggild, H. Bogolyubsky, M. Boldizsar, L. Bombara, M. Bombonati, C. Book, J. Borel, H. Bortolin, C. Bose, S. Bossu, F. Botje, M. Bottger, S. Boyer, B. Braun-Munzinger, P. Bravina, L. Bregant, M. Breitner, T. Broz, M. Brun, R. Bruna, E. Bruno, G.E. Budnikov, D. Buesching, H. Busch, O. Buthelezi, Z. Caffarri, D. Cai, X. Caines, H. Villar, E.Calvo Camerini, P. Roman, V.Canoa Romeo, G.Cara Carena, F. Carena, W. Carminati, F. Casanova Diaz, A. Caselle, M. Castellanos, J.Castillo Catanescu, V. Cavicchioli, C. Cerello, P. Chang, B. Chapeland, S. Charvet, J.L. Chattopadhyay, S. Chattopadhyay, S. Cherney, M. Cheshkov, C. Cheynis, B. Chiavassa, E. Barroso, V.Chibante Chinellato, D.D. Chochula, P. Chojnacki, M. Christakoglou, P. Christensen, C.H. Christiansen, P. Chujo, T. Cicalo, C. Cifarelli, L. Cindolo, ... (2011). Femtoscopy of pp collisions at vs=0.9 and 7 TeV at the LHC with two-pion Bose-Einstein correlations. PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY, vol. 84/2011; p. 112004-1-112004-22, ISSN: 1550-7998, doi: 10.1103/PhysRevD.84.112004

Aamodt, K.ca, Abel, N.ap, Abeysekara, U.by, Abrahantes Quintana, A.ao, Abramyan, A.di, Adamová, D.ci, Aggarwal, M.M.y, Aglieri Rinella, G.am, Agocs, A.G.r, Aguilar Salazar, S.bm, Ahammed, Z.bb, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.aw, Akimoto, R.cw, Akindinov, A.bp, Aleksandrov, D.br, Alessandro, B.db, Alfaro Molina, R.bm, Alici, A.m, Almaráz Aviña, E.bm, Alme, J.h, Alt, T.ap, Altini, V.e, Altinpinar, S.ae, Andrei, C.q, Andronic, A.ae, Anelli, G.am, Angelov, V.ap, Anson, C.aa, Anticic, T.dj, Antinori, F.am, Antinori, S.m, Antipin, K.aj, Antonczyk, D.aj, Antonioli, P.n, Anzo, A.bm, Aphecetche, L.bu, Appelshäuser, H.aj, Arcelli, S.m, Arceo, R.bm, Arend, A.aj, Armesto, N.co, Arnaldi, R.db, Aronsson, T.bv, Arsene, I.C.ca, Asryan, A.cu, Augustinus, A.am, Averbeck, R.ae, Awes, T.C.bx, Äystö, J.av, Azmi, M.D.b, Bablok, S.h, Bach, M.ai, Badalà, A.x, Baek, Y.W.aw, Bagnasco, S.db, Bailhache, R.ae, Bala, R.da, Baldisseri, A.cl, Baldit, A.z, Bán, J.be, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.cq, Bastid, N.z, Bathen, B.bt, Batigne, G.bu, Batyunya, B.ah, Baumann, C.bt, Bearden, I.G.ab, Becker, B.t, Belikov, I.cv, Bellwied, R.ag, Belmont-Moreno, E.bm, Belogianni, A.d, Benhabib, L.bu, Beole, S.da, Berceanu, I.q, Bercuci, A.ae, Berdermann, E.ae, Berdnikov, Y.al,

Betev, L.am, Bhasin, A.au, Bhati, A.K.y, Bianchi, L.da, Bianchi, N.ak, Bianchin, C.cb, Bielcík, J.cd, Bielcíková, J.ci, Bilandzic, A.c, Bimbot, L.bz, Biolcati, E.da, Blanc, A.z, Blanco, F.w, Blanco, F.bk, Blau, D.br, Blume, C.aj, Boccioli, M.am, Bock, N.aa, Bogdanov, A.bq, Bøggild, H.ab, Bogolyubsky, M.cf, Bohm, J.cs, Boldizsár, L.r, Bombara, M.bd, Bombonati, C.cb, Bondila, M.av, Borel, H.cl, Borshchov, V.ax, Borisov, A.ay, Bortolin, C.cb, Bose, S.ba, Bosisio, L.cx, Bossú, F.da, Botje, M.c, Böttger, S.ap, Bourdaud, G.bu, Boyer, B.bz, Braun, M.cu, Braun-Munzinger, P.ae af, Bravina, L.ca, Bregant, M.cx, Breitner, T.ap, Bruckner, G.am, Brun, R.am, Bruna, E.bv... (2010). Charged-particle multiplicity measurement in proton-proton collisions at vs 0.9 and 2.36 TeV with ALICE at LHC . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68; p. 89-108, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1339-x

K. Aamodt, N. Abel, U. Abeysekara, A. Abrahantes Quintana, A. Abramyan, D. Adamova, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, S. Aguilar Salazar, Z. Ahammed, A. Ahmad, N. Ahmad, S.U. Ahn, R. Akimoto, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, E. Almaraz Avina, J. Alme, T. Alt, V. Altini, S. Altinpinar, C. Andrei, A. Andronic, G. Anelli, V. Angelov, C. Anson, T. Anticic, F. Antinori, S. Antinori, K. Antipin, D. Antonczyk, P. Antonioli, A. Anzo, L. Aphecetche, H. Appelshauser, S. Arcelli, R. Arceo, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Aysto, M.D. Azmi, S. Bablok, M. Bach, A. Badala, Y.W. Baek, S. Bagnasco, R. Bailhache, R. Bala, A. Baldisseri, A. Baldit, J. Ban, R. Barbera, G.G. Barnafoldi, L. Barnby, V. Barret, J. Bartke, F. Barile, M. Basile, V. Basmanov, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, B. Becker, I. Belikov, R. Bellwied, E. Belmont-Moreno, A. Belogianni, L. Benhabib, S. Beole, I. Berceanu, A. Bercuci, E. Berdermann, Y. Berdnikov, L. Betev, A. Bhasin, A.K. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcik, J. Bielcikova, A. Bilandzic, L. Bimbot, E. Biolcati, A. Blanc, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Boggild, M. Bogolyubsky, J. Bohm, L. Boldizsar, M. Bombara, C. Bombonati, M. Bondila, H. Borel, V. Borshchov, A. Borisov, C. Bortolin, S. Bose, L. Bosisio, F. Bossu, M. Botje, S. Bottger, G. Bourdaud, B. Boyer, M. Braun, P. Braun-Munzinger, L. Bravina, M. Bregant, T. Breitner, G. Bruckner, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, P. Buncic, O. Busch, Z. Buthelezi, D. Caffarri, X. Cai, H. Caines, E. Camacho, P. Camerini, M. Campbell, V. Canoa Roman, G.P. Capitani, G. Cara Romeo, F. Carena, W. Carena, F. Carminati, A. Casanova Diaz, M. Caselle, J. Castillo Castellanos, J.F. Castillo Hernandez, V. Catanescu, E. Cattaruzza, C. Cavicchioli, P. Cerello, V. ... (2010). Charged-particle multiplicity measurement in proton-proton collisions at vs = 7 TeV with ALICE at LHC . THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 68 (3); p. 345-354, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-010-1350-2

K. Aamodt, N. Abel, U. Abeysekara, A. Abrahantes Quintana, A. Abramyan, D. Adamova, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, S. Aguilar Salazar, Z. Ahammed, A. Ahmad, N. Ahmad, S.U. Ahn, R. Akimoto, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, E. Almaraz Avina, J. Alme, T. Alt, V. Altini, S. Altinpinar, C. Andrei, A. Andronic, G. Anelli, V. Angelov, C. Anson, T. Anticic, F. Antinori, S. Antinori, K. Antipin, D. Antonczyk, P. Antonioli, A. Anzo, L. Aphecetche, H. Appelshauser, S. Arcelli, R. Arceo, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Aysto, M.D. Azmi, S. Bablok, M. Bach, A. Badala, Y.W. Baek, S. Bagnasco, R. Bailhache, R. Bala, A. Baldisseri, A. Baldit, J. Ban, R. Barbera, G.G. Barnafoldi, L. Barnby, V. Barret, J. Bartke, F. Barile, M. Basile, V. Basmanov, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, B. Becker, I. Belikov, R. Bellwied, E. Belmont-Moreno, A. Belogianni, L. Benhabib, S. Beole, I. Berceanu, A. Bercuci, E. Berdermann, Y. Berdnikov, L. Betev, A. Bhasin, A.K. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcik, J. Bielcikova, A. Bilandzic, L. Bimbot, E. Biolcati, A. Blanc, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Boggild, M. Bogolyubsky, J. Bohm, L. Boldizsar, M. Bombara, C. Bombonati, M. Bondila, H. Borel, A. Borisov, C. Bortolin, S. Bose, L. Bosisio, F. Bossu, M. Botje, S. Bottger, G. Bourdaud, B. Boyer, M. Braun, P. Braun-Munzinger, L. Bravina, M. Bregant, T. Breitner, G. Bruckner, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, P. Buncic, O. Busch, Z. Buthelezi, D. Caffarri, X. Cai, H. Caines, E. Camacho, P. Camerini, M. Campbell, V. Canoa Roman, G.P. Capitani, G.Cara Romeo, F. Carena, W. Carena, F. Carminati, A.Casanova Diaz, M. Caselle, J. Castillo Castellanos, J.F. Castillo Hernandez, V. Catanescu, E. Cattaruzza, C. Cavicchioli, P. Cerello, V. Chambert, B. Cha... (2010). Midrapidity antiproton-to-proton ratio in pp collisons at vs=0.9 and 7 TeV measured by the ALICE experiment . PHYSICAL REVIEW LETTERS, vol. 105 (7); p. 072002-1-072002-12, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.105.072002

Aamodt, K.by, Abel, N.aq, Abeysekara, U.bw, Abrahantes Quintana, A.ap, Abramyan, A.dh, Adamová, D.cg, Aggarwal, M.M.y, Aglieri Rinella, G.an, Agocs, A.G.r, Aguilar Salazar, S.bk, Ahammed, Z.ba, Ahmad, A.b, Ahmad, N.b, Ahn, S.U.al, Akimoto, R.cu, Akindinov, A.bn, Aleksandrov, D.bp, Alessandro, B.cz, Alfaro Molina, R.bk, Alici, A.m, Almaráz Aviña, E.bk, Alme, J.h, Alt, T.aq, Altini, V.e, Altinpinar, S.ae, Andrei, C.q, Andronic, A.ae, Anelli, G.an, Angelov, V.aq, Anson, C.aa, Anticic, T.di, Antinori, F.an, Antinori, S.m, Antipin, K.aj, Antonczyk, D.aj, Antonioli, P.n, Anzo, A.bk, Aphecetche, L.bs, Appelshäuser, H.aj, Arcelli, S.m, Arceo, R.bk, Arend, A.aj, Armesto, N.cm, Arnaldi, R.cz, Aronsson, T.bt, Arsene, I.C.by, Asryan, A.cs, Augustinus, A.an, Averbeck, R.ae, Awes, T.C.bv, Äystö, J.aw, Azmi, M.D.b, Bablok, S.h, Bach, M.ai, Badalà, A.x, Baek, Y.W.al, Bagnasco, S.cz, Bailhache, R.ae, Bala, R.cy, Baldisseri, A.cj, Baldit, A.z, Bán, J.bd, Barbera, R.w, Barnaföldi, G.G.r, Barnby, L.l, Barret, V.z, Bartke, J.ac, Barile, F.e, Basile, M.m, Basmanov, V.co, Bastid, N.z, Bathen, B.br, Batigne, G.bs, Batyunya, B.ah, Baumann, C.br, Bearden, I.G.ab, Becker, B.t, Belikov, I.ct, Bellwied, R.ag, Belmont-Moreno, E.bk, Belogianni, A.d, Benhabib, L.bs, Beole, S.cy, Berceanu, I.q, Bercuci, A.ae, Berdermann, E.ae, Berdnikov, Y.am, Betev, L.an, Bhasin, A.av, Bhati, A.K.y, Bianchi, L.cy, Bianchi, N.ak, Bianchin, C.bz, Bielcík, J.cb, Bielcíková, J.cg, Bilandzic, A.c, Bimbot, L.bx, Biolcati, E.cy, Blanc, A.z, Blanco, F.w, Blanco, F.bi, Blau, D.bp, Blume, C.aj, Boccioli, M.an, Bock, N.aa, Bogdanov, A.bo, Bøggild, H.ab, Bogolyubsky, M.cd, Bohm, J.cq, Boldizsár, L.r, Bombara, M.bc, Bombonati, C.bz, Bondila, M.aw, Borel, H.cj, Borisov, A.ax, Bortolin, C.bz, Bose, S.az, Bosisio, L.cv, Bossú, F.cy, Botje, M.c, Böttger, S.aq, Bourdaud, G.bs, Boyer, B.bx, Braun, M.cs, Braun-Munzinger, P.ae af, Bravina, L.by, Bregant, M.cv, Breitner, T.aq, Bruckner, G.an, Brun, R.an, Bruna, E.bt, Bruno, G.E.e, B... (2010). Transverse momentum spectra of charged particles in proton-proton collisions at vs=900 GeV with ALICE at the LHC . PHYSICS LETTERS. SECTION B, vol. 693; p. 53-68, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.08.026

K. Aamodt1, A. Abrahantes Quintana2, D. Adamová3, A.M. Adare4, M.M. Aggarwal5, G. Aglieri Rinella6, A.G. Agocs7, S. Aguilar Salazar8, Z. Ahammed9, N. Ahmad10, A.Ahmad Masoodi10, S.U. Ahn11, A. Akindinov12, D. Aleksandrov13, B. Alessandro14, R. Alfaro Molina8, A. Alici15, 16, A. Alkin17, E. Almaráz Aviña8, T. Alt18, V. Altini19, 20, S. Altinpinar21, I. Altsybeev22, C. Andrei23, A. Andronic21, V. Anguelov24, C. Anson25, T. Anticic26, F. Antinori27, 28, P. Antonioli16, L. Aphecetche29, H. Appelshäuser30, N. Arbor31, 32, S. Arcelli15, 16, A. Arend30, N. Armesto33, R. Arnaldi14, T. Aronsson4, I.C. Arsene21, A. Asryan22, A. Augustinus6, R. Averbeck21, T.C. Awes34, J. Äystö35, 36, M.D. Azmi10, M. Bach18, A. Badalà37, Y.W. Baek11, S. Bagnasco14, R. Bailhache30, R. Bala14, 38, R. Baldini Ferroli39, A. Baldisseri40, A. Baldit41, 42, J. Bán43, R. Barbera37, 44, F. Barile19, 20, G.G. Barnaföldi7, L.S. Barnby45, V. Barret41, 42, J. Bartke46, M. Basile15, 16, N. Bastid41, 42, B. Bathen47, G. Batigne29, B. Batyunya48, C. Baumann30, I.G. Bearden49, H. Beck30, I. Belikov50, F. Bellini15, 16, R. Bellwied51, E. Belmont-Moreno8, S. Beole14, 38, I. Berceanu23, A. Bercuci23, E. Berdermann21, Y. Berdnikov52, L. Betev6, A. Bhasin53, A.K. Bhati5, L. Bianchi14, 38, N. Bianchi54, C. Bianchin27, 28, J. Bielcík55, J. Bielcíková3, A. Bilandzic56, E. Biolcati14, 38, A. Blanc41, 42, F. Blanco57, F. Blanco58, D. Blau13, C. Blume30, M. Boccioli6, N. Bock25, A. Bogdanov59, H. Bøggild49, M. Bogolyubsky60, L. Boldizsár7, M. Bombara61, C. Bombonati27, 28, J. Book30, H. Borel40, C. Bortolin27, S. Bose62, F. Bossú14, 38, M. Botje56, S. Böttger24, B. Boyer63, P. Braun-Munzinger21, L. Bravina64, M. Bregant65, 66, T. Breitner24, M. Broz67, R. Brun6, E. Bruna4, G.E. Bruno19, 20, D. Budnikov68, H. Buesching30, O. Busch69, Z. Buthelezi70, D. Caffarri27, 28, X. Cai71, H. Caines4, E. Calvo Villar72, P. Camerini65, 66, V. Canoa Roman6, G. Cara Romeo16, F. Carena6, W. Carena6, F. Carminati6, A. Casanova Díaz54, ... (2011). Strange particle production in proton–proton collisions at vs= 0.9 TeV with ALICE at the LHC. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. Vol. 71, n. 3; p. 1594-1618, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-011-1594-5

Abelev, B. Abrahantes Quintana, A. Adamova, D. Adare, A.M. Aggarwal, M.M. Aglieri Rinella, G. Agocs, A.G. Agostinelli, A. Aguilar Salazar, S. Ahammed, Z. Ahmad, N. Masoodi, A.Ahmad Ahn, S.U. Akindinov, A. Aleksandrov, D. Alessandro, B. Molina, R.Alfaro Alici, A. Alkin, A. AlmarazAvina, E. Alt, T. Altini, V. Altinpinar, S. Altsybeev, I. Andrei, C. Andronic, A. Anguelov, V. Anson, C. Anticic, T. Antinori, F. Antonioli, P. Aphecetche, L. Appelshauser, H. Arbor, N. Arcelli, S. Arend, A. Armesto, N. Arnaldi, R. Aronsson, T. Arsene, I.C. Arslandok, M. Asryan, A. Augustinus, A. Averbeck, R. Awes, T.C. Aysto, J. Azmi, M.D. Bach, M. Badala, A. Baek, Y.W. Bailhache, R. Bala, R. Ferroli, R.Baldini Baldisseri, A. Baldit, A. Baltasar Dos Santos Pedrosa, F. Ban, J. Baral, R.C. Barbera, R. Barile, F. Barnafoldi, G.G. Barnby, L.S. Barret, V. Bartke, J. Basile, M. Bastid, N. Bathen, B. Batigne, G. Batyunya, B. Baumann, C. Bearden, I.G. Beck, H. Belikov, I. Bellini, F. Bellwied, R. Belmont-Moreno, E. Beole, S. Berceanu, I. Bercuci, A. Berdnikov, Y. Berenyi, D. Bergmann, C. Betev, L. Bhasin, A. Bhati, A.K. Bianchi, N. Bianchi, L. Bianchin, C. Bielcik, J. Bielcikova, J. Bilandzic, A. Blanco, F. Blanco, F. Blau, D. Blume, C. Boccioli, M. Bock, N. Bogdanov, A. Boggild, H. Bogolyubsky, M. Boldizsar, L. Bombara, M. Book, J. Borel, H. Borissov, A. Bortolin, C. Bose, S. Bossu, F. Botje, M. Bottger, S. Boyer, B. Braun-Munzinger, P. Bregant, M. Breitner, T. Broz, M. Brun, R. Bruna, E. Bruno, G.E. Budnikov, D. Buesching, H. Bufalino, S. Bugaiev, K. Busch, O. Buthelezi, Z. Caffarri, D. Cai, X. Caines, H. Calvo Villar, E. Camerini, P. Canoa Roman, V. Cara Romeo, G. Carena, W. Carena, F. Carlin Filho, N. Carminati, F. Carrillo Montoya, C.A. Casanova Diaz, A. Caselle, M. Castillo Castellanos, J. Castillo Hernandez, J.F. Casula, E.A.R. Catanescu, V. Cavicchioli, C. Cepila, J. Cerello, P. Chang, B. Chapeland, S. Charvet, J.L. Chattopadhyay, S. Chattopadhyay, S. Cherney, M. Cheshkov, C. Cheynis, B.... (2012). J/Psi Polarization in pp Collisions at vs = 7 TeV. PHYSICAL REVIEW LETTERS, vol. 108/2012; p. 082001-1-082001-10, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.108.082001

M. Agnello, L. Benussi, M. Bertani, H. C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L.Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F. L. Fabbri, A. Feliciello, A. Filippib E. M. Fiore, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P.Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A. Zenoni, G.Garbarino (2011). Neutron–proton coincidences from Non-Mesonic Weak Decay of p-shell ¿-hypernuclei and determination of the two-nucleon induced process. PHYSICS LETTERS. SECTION B, vol. 701; p. 556-561, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.06.035

M. Agnello, L. Benussi, M. Bertani, H. C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L.Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F. L. Fabbri, A. Feliciello, A. Filippib E. M.Fiore, A. ontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P.Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A.

Zenoni (2011). Hypernuclear spectroscopy with K- at rest on 7Li, 9Be, 13C and 16O. PHYSICS LETTERS. SECTION B, vol. 698; p. 219-225, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.02.060

B. Abelev, J. Adam, D. Adamová, A. M. Adare, M. M. Aggarwal, G. Aglieri Rinella, A. G. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, N. Ahmad, A. Ahmad Masoodi, S. U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I. C. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T. C. Awes, J. Äystö, M. D. Azmi, M. Bach, A. Badalà, Y. W. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. C. Baral, R. Barbera, F. Barile, G. G. Barnaföldi, L. S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I. G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, C. Bergmann, D. Berzano, L. Betev, A. Bhasin, A. K. Bhati, N. Bianchi, L. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, P. Braun-Munzinger, M. Bregant, T. Breitner, M. Broz, R. Brun, E. Bruna, G. E. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, F. Carena, W. Carena, N. Carlin Filho, F. Carminati, C. A. Carrillo Montoya, A. Casanova Díaz, M. Caselle, J. Castillo Castellanos, J. F. Castillo Hernandez... (2012). Measurement of event background fluctuations for charged particle jet reconstruction in Pb-Pb collisions at vs= 2.76 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 2012; p. 053(01)-053(26), ISSN: 1029-8479, doi: 10.1007/JHEP03(2012)053

K. Aamodt, B. Abelev, A. Abrahantes Quintana, D. Adamová, A. Adare, M. Aggarwal, G. Aglieri Rinella, A. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, N. Ahmad, A. Ahmad Masoodi, S. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T. Awes, J. Äystö, M. Azmi, M. Bach, A. Badalà, Y. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. Baral, R. Barbera, F. Barile, G. Barnaföldi, L. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, C. Bergmann, L. Betev, A. Bhasin, A. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, E. Biolcati, F. Blanco, F. Blanco, D. Blau, C. Blume, N. Bock, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, C. Bombonati, J. Book, H. Borel, A. Borissov, C. Bortolin, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, P. Braun-Munzinger, M. Bregant, T. Breitner, M. Broz, R. Brun, E. Bruna, G. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, F. Carena, W. Carena, F. Carminati, A. Casanova Díaz, M. Caselle, J. Castillo Castellanos, E. Casula, V. Catanescu, C. Cavicchioli, J. Cepila, P. Cerello, B. Chang, S. Chapel... (2012). Particle-Yield Modification in Jetlike Azimuthal Dihadron Correlations in Pb-Pb Collisions at vsNN=2.76¿¿TeV. PHYSICAL REVIEW LETTERS, vol. 108; p. 092301-1-092301-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.108.092301

B. Abelev, J. Adam, D. Adamová, A.M. Adare, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, N. Ahmad, A. Ahmad Masoodi, S.U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Äystö, M.D. Azmi, M. Bach, A. Badalà, Y.W. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R.C. Baral, R. Barbera, F. Barile, G.G. Barnaföldi, L.S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, S. Basu, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, G. Bencedi, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, D. Berzano, L. Betev, A. Bhasin, A.K. Bhati, J. Bhom, N. Bianchi, L. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, S. Bjelogrlic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, S. Böttger, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, E. Braidot, P. Braun-Munzinger, M. Bregant, T. Breitner, T.A. Browning, M. Broz, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, W. Carena, F. Carena, N. Carlin Filho, F. Carminati, C.A. Carrillo Montoya, A. Casanova Díaz, J. C... (2012). Multi-strange baryon production in pp collisions at vs=7 TeV with ALICE. PHYSICS LETTERS. SECTION B, vol. 712; p. 309-318, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.05.011

B. Abelev, J. Adam, D. Adamová, A.M. Adare, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, A. Ahmad Masoodi, N. Ahmad, S.U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Äystö, M.D. Azmi, M. Bach, A. Badalà, Y.W. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R.C. Baral, R. Barbera, F. Barile, G.G. Barnaföldi, L.S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, G. Bencedi, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, C. Bergmann, D. Berzano, L. Betev, A. Bhasin, A.K. Bhati, N. Bianchi, L. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, S. Bjelogrlic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, P. Braun-Munzinger, M. Bregant, T. Breitner, T.A. Browning, M. Broz, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, F. Carena, W. Carena, N. Carlin Filho, F. Carminati, C.A. Carrillo Montoya, A. Casanova Díaz, J. Castillo Castellanos... (2012). J/psi production as a function of charged particle multiplicity in pp collisions at vs=7 TeV. PHYSICS LETTERS. SECTION B, vol. 712; p. 165-175, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.04.052

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, H. Fujioka, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P. Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A. Zenoni (2012). Hypernuclear weak decay studies with FINUDA. NUCLEAR PHYSICS. A, vol. 881; p. 322-338, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2012.01.024

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A. Zenoni, A. Gal (2012). First observation of the hyper superheavy hydrogen 6¿H. NUCLEAR PHYSICS. A, vol. 881; p. 269-287, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2012.02.015

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A. Zenoni (2012). Evidence for Heavy Hyperhydrogen 6

H. PHYSICAL REVIEW LETTERS, vol. 108; p. 042501-1-042501-5, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.108.042501

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, V. Lucherini, S. Marcello, N. Mirfakhrai, F. Moia, P. Montagna, O. Morra, T. Nagae, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, R. Wheadon, A. Zenoni (2011). The A(K-stop,p±S±)A reaction on p-shell nuclei. PHYSICS LETTERS. SECTION B, vol. 704; p. 474-480, ISSN: 0370-2693, doi: 10.1016/j.physletb.2011.09.076

B. Abelev, A. Abrahantes Quintana, D. Adamová, A.M. Adare, M.M. Aggarwal, G. Aglieri Rinella, A.G. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, N. Ahmad, A. Ahmad Masoodi, S.U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I.C. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T.C. Awes, J. Äystö, M.D. Azmi, M. Bach, A. Badalà, Y.W. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R.C. Baral, R. Barbera, F. Barile, G.G. Barnaföldi, L.S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I.G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, C. Bergmann, D. Berzano, L. Betev, A. Bhasin, A.K. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, C. Bortolin, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, P. Braun-Munzinger, M. Bregant, T. Breitner, M. Broz, R. Brun, E. Bruna, G.E. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, W. Carena, F. Carena, N. Carlin Filho, F. Carminati, C.A. Carrillo Montoya, A. Casanova Díaz, M. Caselle, J. Castillo Castellanos, J.F. Castillo Hernandez, E.A.R. Casula, V.

C... (2012). Light vector meson production in pp collisions at vs = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 710; p. 557-568, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.03.038

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, E. Bonifazi, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, H. Fujioka, P. Genova, P. Gianotti, N. Grion, B. Kang, V. Lucherini, S. Marcello, T. Maruta, N. Mirfakhrai, F. Moia, P. Montagna, T. Nagae, D. Nakajima, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, F. Pompili, RUI R., G. Simonetti, A. Toyoda, R. Wheadon, A. Zenoni (2010).

Study of the A(K-(stop), pi+- Sigma-+) A-prime reaction. NUCLEAR PHYSICS. A, vol. 835; p. 398-401, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2010.01.228

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, B. Kang, V. Lucherini, S. Marcello, F. Moia, T. Maruta, N. Mirfakhrai, P. Montagna, O. Morra, T. Nagae, D. Nakajima, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, RUI R., G. Simonetti, A. Toyoda, R. Wheadon, A. Zenoni (2010). FINUDA hypernuclear spectroscopy. NUCLEAR PHYSICS. A, vol. 835; p. 414-417, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2010.01.232

M. Agnello, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, B. Kang, V. Lucherini, S. Marcello, T. Maruta, N. Mirfakhrai, F. Moia, O. Morra, T. Nagae, D. Nakajima, H. Outa, A. Pantaleo, V. Paticchio, S. Piano, F. Pompili, RUI R., G. Simonetti, A. Toyoda, R. Wheadon, A. Zenoni (2010). Study of two-body non-mesonic decays of light hypernuclei with FINUDA. NUCLEAR PHYSICS. A, vol. 835; p. 439-442, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2010.01.238

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., B. DALENA, F. DE MORI, G. D'ERASMO, F.L. FABBRI, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P.GENOVA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., A. SANCHEZ LORENTE, M. SEKIMOTO, G. SIMONETTI, A. TOYODA, R. WHEADON, A. ZENONI, A.GAL (2009). Mesonic and Non-Mesonic Weak Decay of Hypernuclei with FINUDA. NUCLEAR PHYSICS. A, vol. 827; p. 303-305, ISSN: 0375-9474, doi: 10.1016/j.nuclphysa.2009.05.061

M. Agnello, A. Andronenkov, G. Beer, L. Benussi, M. Bertani, H.C. Bhang, G. Bonomi, E. Botta, M. Bregant, T. Bressani, S. Bufalino, L. Busso, D. Calvo, P. Camerini, B. Dalena, F. De Mori, G. D'Erasmo, F.L. Fabbri, A. Feliciello, A. Filippi, E.M. Fiore, A. Fontana, H. Fujioka, P. Genova, P. Gianotti, N. Grion, O. Hartmann, V. Lenti, V. Lucherini, S. Marcello, T. Maruta, N. Mirfakhrai, P. Montagna, O. Morra, T. Nagae, D. Nakajima, H. Outa, E. Pace, M. Palomba, A. Pantaleo, A. Panzarasa, V. Paticchio, S. Piano, F. Pompili, RUI R., M. Sekimoto, G. Simonetti, A. Toyoda, R. Wheadon, A. Zenoni, G. Garbarino (2010). Proton spectra from Non-Mesonic Weak Decay of p-shell ¿-hypernuclei and evidence for the two-nucleon induced process. PHYSICS LETTERS. SECTION B, vol. 685; p. 247-252, ISSN: 0370-2693, doi: 10.1016/j.physletb.2010.02.003

M. AGNELLO, A. ANDRONENKOV, G. BEER, L. BENUSSI, M. BERTANI, H.C. BHANG, G. BONOMI, E. BOTTA, M. BREGANT, T. BRESSANI, S. BUFALINO, L. BUSSO, D. CALVO, CAMERINI P., B. DALENA, F. DE MORI, G. D'ERASMO, F.L. FABBRI, A. FELICIELLO, A. FILIPPI, E.M. FIORE, C, A. FONTANA, H. FUJIOKA, P.GENOVA, P. GIANOTTI, N. GRION, O. HARTMANN, B. KANG, LENTI, V. LUCHERINI, V. MANZARI, S. MARCELLO, T. MARUTA, N. MIRFAKHRAI, P. MONTAGNA, O. MORRA, T. NAGAE, D. NAKAJIMA, H. OUTA, E. PACE, M. PALOMBA, A. PANTALEO, A. PANZARASA, V. PATICCHIO, S. PIANO, F. POMPILI, RUI R., A. SANCHEZ LORENTE, M. SEKIMOTO, G. SIMONETTI, A. TOYODA, R. WHEADON, A. ZENONI, A.GAL (2009). New results on Mesonic Weak Decay of p-shell Lambda-Hypernuclei. PHYSICS LETTERS. SECTION B, vol. 681; p. 139-146, ISSN: 0370-2693, doi: 10.1016/j.physletb.2009.09.061

B. Abelev69, J. Adam34, D. Adamová74, A.M. Adare120, M.M. Aggarwal78, G. Aglieri Rinella30, A.G. Agocs60, A. Agostinelli19, S. Aguilar Salazar56, Z. Ahammed116, N. Ahmad14, A. Ahmad Masoodi14, S.U. Ahn64, 37, A. Akindinov46, D. Aleksandrov89, B. Alessandro95, R. Alfaro Molina56, A. Alici96, 30, 9, A. Alkin2, E. Almaráz Aviña56, T. Alt36, V. Altini28, 30, S. Altinpinar15, I. Altsybeev117, C. Andrei71, A. Andronic86, V. Anguelov83, J. Anielski54, C. Anson16, T. Anticic87, F. Antinori100, P. Antonioli96, L. Aphecetche102, H. Appelshäuser52, N. Arbor65, S. Arcelli19, A. Arend52, N. Armesto13, R. Arnaldi95, T. Aronsson120, I.C. Arsene86, M. Arslandok52, A. Asryan117, A. Augustinus30, R. Averbeck86, T.C. Awes75, J. Äystö38, M.D. Azmi14, M. Bach36, A. Badalà97, Y.W. Baek64, 37, R. Bailhache52, R. Bala95, R. Baldini Ferroli9, A. Baldisseri12, A. Baldit64, F. Baltasar Dos Santos Pedrosa30, J. Bán47, R.C. Baral48, R. Barbera24, F. Barile28, G.G. Barnaföldi60, L.S. Barnby91, V. Barret64, J. Bartke104, M. Basile19, N. Bastid64, B. Bathen54, G. Batigne102, B. Batyunya59, C. Baumann52, I.G. Bearden72, H. Beck52, I. Belikov58, F. Bellini19, R. Bellwied110, E. Belmont-Moreno56, G. Bencedi60, S. Beole26, I. Berceanu71, A. Bercuci71, Y. Berdnikov76, D. Berenyi60, C. Bergmann54, D. Berzano95, L. Betev30, A. Bhasin81, A.K. Bhati78, L. Bianchi26, N. Bianchi66, C. Bianchin22, J. Bielcík34, J. Bielcíková74, A. Bilandzic73, S. Bjelogrlic45, F. Blanco7, F. Blanco110, D. Blau89, C. Blume52, M. Boccioli30, N. Bock16, A. Bogdanov70, H. Bøggild72, M. Bogolyubsky43, L. Boldizsár60, M. Bombara35, J. Book52, H. Borel12, A. Borissov119, S. Bose90, F. Bossú30, 26, M. Botje73, S. Böttger51, B. Boyer42, P. Braun-Munzinger86, M. Bregant102, T. Breitner51, T.A. Browning84, M. Broz33, R. Brun30, E. Bruna120, 26, 95, G.E. Bruno28, D. Budnikov88, H. Buesching52, S. Bufalino26, 95, K. Bugaiev2, O. Busch83, Z. Buthelezi80, D. Caballero Orduna120, D. Caffarri22, X. Cai40, H. Caines120, E. Calvo Villar92, P... (2012). Heavy flavour decay muon production at forward rapidity in proton–proton collisions at vs = 7 TeV. PHYSICS LETTERS. SECTION B, vol. 708/2012; p. 265-275, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.01.063

B. Abelev69, A. Abrahantes Quintana6, D. Adamov ´a74, A.M. Adare120, M.M. Aggarwal78, G. Aglieri Rinella30, A.G. Agocs60, A. Agostinelli19, S. Aguilar Salazar56, Z. Ahammed116, N. Ahmad14, A. Ahmad Masoodi14, S.U. Ahn64, 37, A. Akindinov46, D. Aleksandrov89, B. Alessandro95, R. Alfaro Molina56, A. Alici96, 30, 9, A. Alkin2, E. Almara ´z Avin ~a56, T. Alt36, V. Altini28, 30, S. Altinpinar15, I. Altsybeev117, C. Andrei71, A. Andronic86, V. Anguelov83, C. Anson16, T. Anti¿ci ´c87, F. Antinori100, P. Antonioli96, L. Aphecetche102, H. Appelsha ¨user52, N. Arbor65, S. Arcelli19, A. Arend52, N. Armesto13, R. Arnaldi95, T. Aronsson120, I.C. Arsene86, M. Arslandok52, A. Asryan117, A. Augustinus30, R. Averbeck86, T.C. Awes75, J. A ¨yst ¨o38, M.D. Azmi14, M. Bach36, A. Badala`97, Y.W. Baek64, 37, R. Bailhache52, R. Bala95, R. Baldini Ferroli9, A. Baldisseri12, A. Baldit64, F. Baltasar Dos Santos Pedrosa30, J. Ba ´n47, R.C. Baral48, R. Barbera24, F. Barile28, G.G. Barnaf ¨oldi60, L.S. Barnby91, V. Barret64, J. Bartke104, M. Basile19, N. Bastid64, B. Bathen54, G. Batigne102, B. Batyunya59, C. Baumann52, I.G. Bearden72, H. Beck52, I. Belikov58, F. Bellini19, R. Bellwied110, E. Belmont-Moreno56, S. Beole26, I. Berceanu71, A. Bercuci71, Y. Berdnikov76, D. Berenyi60, C. Bergmann54, D. Berzano26, L. Betev30, A. Bhasin81, A.K. Bhati78, N. Bianchi66, L. Bianchi26, C. Bianchin22, J. Biel¿c ´ik34, J. Biel¿c ´ikov ´a74, A. Bilandzic73, F. Blanco110, F. Blanco7, D. Blau89, C. Blume52, M. Boccioli30, N. Bock16, A. Bogdanov70, H. Bøggild72, M. Bogolyubsky43, L. Boldizsa ´r60, M. Bombara35, J. Book52, H. Borel12, A. Borissov119, C. Bortolin22, ii, S. Bose90, F. Bossu ´30, 26, M. Botje73, S. Bo ¨ttger51, B. Boyer42, P. Braun-Munzinger86, M. Bregant102, T. Breitner51, M. Broz33, R. Brun30, E. Bruna120, 26, 95, G.E. Bruno28, D. Budnikov88, H. Buesching52, S. Bufalino26, 95, K. Bugaiev2, O. Busch83, Z. Buthelezi80, D. Caffarri22, X. Cai40, H. Caines120, E. Calvo Villar92, P. Camerini20, V. Can... (2012). Measurement of charm production at central rapidity

in proton-proton collisions at vs = 7 TeV. JOURNAL OF HIGH ENERGY PHYSICS, vol. 01/2012; p. ---, ISSN: 1126-6708, doi: 10.1007/JHEP01(2012)128

K. Aamodta, B. Abelevb, A. Abrahantes Quintanac, D. Adamovád, A.M. Adaree, M.M. Aggarwalf, G. Aglieri Rinellag, A.G. Agocsh, A. Agostinellii, S. Aguilar Salazarj, Z. Ahammedk, N. Ahmadl, A. Ahmad Masoodil, S.U. Ahnm, 1, A. Akindinovn, D. Aleksandrovo, B. Alessandrop, R. Alfaro Molinaj, A. Aliciq, 2, A. Alkinr, E. Almaráz Aviñaj, J. Almes, T. Altt, V. Altiniu, S. Altinpinara, I. Altsybeevv, C. Andreiw, A. Andronicx, V. Anguelovt, 3, J. Anielskiy, T. Anticicz, F. Antinoriaa, P. Antonioliab, L. Aphecetcheac, H. Appelshäuserad, N. Arborae, S. Arcellii, A. Arendad, N. Armestoaf, R. Arnaldip, T. Aronssone, I.C. Arsenex, M. Arslandokad, A. Asryanv, A. Augustinusg, R. Averbeckx, T.C. Awesag, J. Äystöah, M.D. Azmil, M. Bacht, A. Badalàai, Y.W. Baekm, 4, R. Bailhachead, R. Balap, R. Baldini Ferroliq, A. Baldisseriaj, A. Balditak, F. Baltasar Dos Santos Pedrosag, J. Bánal, R.C. Baralam, R. Barberaan, F. Barileu, G.G. Barnaföldih, L.S. Barnbyao, V. Barretak, J. Bartkeap, M. Basilei, N. Bastidak, B. Batheny, G. Batigneac, B. Batyunyaaq, C. Baumannad, I.G. Beardenar, H. Beckad, I. Belikovas, F. Bellinii, R. Bellwiedat, E. Belmont-Morenoj, S. Beoleau, I. Berceanuw, A. Bercuciw, Y. Berdnikovav, D. Berenyih, C. Bergmanny, L. Betevg, A. Bhasinaw, A.K. Bhatif, L. Bianchiau, N. Bianchiax, C. Bianchinay, J. Bielcíkaz, J. Bielcíkovád, A. Bilandzicba, E. Biolcatiau, F. Blancobb, F. Blancoat, D. Blauo, C. Blumead, N. Bockbc, A. Bogdanovbd, H. Bøggildar, M. Bogolyubskybe, L. Boldizsárh, M. Bombarabf, C. Bombonatiay, J. Bookad, H. Borelaj, A. Borissovbg, C. Bortolinay, 5, S. Bosebh, F. Bossúau, M. Botjeba, S. Böttgerbi, B. Boyerbj, P. Braun-Munzingerx, M. Bregantac, T. Breitnerbi, M. Brozbk, R. Brung, E. Brunae, 6, G.E. Brunou, D. Budnikovbl, H. Bueschingad, S. Bufalinop, K. Bugaievr, O. Buschbm, Z. Buthelezibn, D. Caffarriay, X. Caibo, H. Cainese, E. Calvo Villarbp, P. Camerinibq, V. Canoa Romanbr, 7, G. Cara Romeoab, F. Carenag, W. Carenag, F. Carminatig, A. Casanova Díazax, M. Caselleg... (2012). Harmonic decomposition of two particle angular correlations in Pb–Pb collisions at vsNN = 2.76 TeV. PHYSICS LETTERS. SECTION B, vol. 708/2012; p. 249-264, ISSN: 0370-2693, doi: 10.1016/j.physletb.2012.01.060

Betty Abelev, Arian Abrahantes Quintana, Dagmar Adamova, Andrew Marshall Adare, Madan Aggarwal, Gianluca Aglieri Rinella, Andras Gabor Agocs, Andrea Agostinelli, Saul Aguilar Salazar, Zubayer Ahammed, Nazeer Ahmad, Arshad Ahmad, Sang Un Ahn, Alexander Akindinov, Dmitry Aleksandrov, Bruno Alessandro, Jose Ruben Alfaro Molina, Andrea Alici, Anton Alkin, Erick Jonathan Almaraz Avina, Torsten Alt, Valerio Altini, Sedat Altinpinar, Igor Altsybeev, Cristian Andrei, Anton Andronic, Venelin Anguelov, Christopher Daniel Anson, Tome Anticic, Federico Antinori, Pietro Antonioli, Laurent Bernard Aphecetche, Harald Appelshauser, Nicolas

Arbor, Silvia Arcelli, Andreas Arend, Nestor Armesto, Roberta Arnaldi, Tomas Robert Aronsson, Ionut Cristian Arsene, Mesut Arslandok, Andzhey Asryan, Andre Augustinus, Ralf Peter Averbeck, Terry Awes, Juha Heikki Aysto, Mohd Danish Azmi, Matthias Jakob Bach, Angela Badala, Yong Wook Baek, Raphaelle Marie Bailhache, Renu Bala, Rinaldo Baldini Ferroli, Alberto Baldisseri, Alain Baldit, Fernando Baltasar Dos Santos Pedrosa, Jaroslav Ban, Rama Chandra Baral, Roberto Barbera, Francesco Barile, Gergely Gabor Barnafoldi, Lee Stuart Barnby, Valerie Barret, Jerzy Gustaw Bartke, Maurizio Basile, Nicole Bastid, Bastian Bathen, Guillaume Batigne, Boris Batyunya, Christoph Heinrich Baumann, Ian Gardner Bearden, Hans Beck, Iouri Belikov, Francesca Bellini, Rene Bellwied, Ernesto Belmont-Moreno, Stefania Beole, Ionela Berceanu, Alexandru Bercuci, Yaroslav Berdnikov, Daniel Berenyi, Cyrano Bergmann, Dario Berzano, Latchezar Betev, Anju Bhasin, Ashok Kumar Bhati, Nicola Bianchi, Livio Bianchi, Chiara Bianchin, Jaroslav Bielcik, Jana Bielcikova, Ante Bilandzic, F. Blanco, Francesco Blanco, Dmitry Blau, Christoph Blume, Marco Boccioli, Nicolas Bock, Alexey Bogdanov, Hans Boggild, Mikhail Bogolyubsky, Laszlo Boldizsar, Marek Bombara, Julian Book, Herve Borel, ... (2012). Underlying Event measurements in pp collisions at $ sqrt {s} = 0.9 $ and 7 TeV with the ALICE experiment at the LHC. JOURNAL OF HIGH ENERGY PHYSICS, vol. 7/2012; p. 1-42, ISSN: 1029-8479, doi: 10.1007/JHEP07(2012)116

B. Abelev, J. Adam, D. Adamová, A. Adare, M. Aggarwal, G. Aglieri Rinella, A. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, A. Ahmad Masoodi, N. Ahmad, S. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T. Awes, J. Äystö, M. Azmi, M. Bach, A. Badalà, Y. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. Baral, R. Barbera, F. Barile, G. Barnaföldi, L. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, S. Basu, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, G. Bencedi, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, C. Bergmann, D. Berzano, L. Betev, A. Bhasin, A. Bhati, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, S. Bjelogrlic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, S. Böttger, B. Boyer, E. Braidot, P. Braun-Munzinger, M. Bregant, T. Breitner, T. Browning, M. Broz, R. Brun, E. Bruna, G. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, W. Carena, F. Carena, N. Carlin Filho, F. Carminati, C. Carrillo Montoya, A. Casanova Díaz, J. Castillo Castellanos, J. Castillo Hern... (2012). J/¿ Suppression at Forward Rapidity in Pb-Pb Collisions at sqrt[s_{NN}]=2.76¿¿TeV. PHYSICAL REVIEW LETTERS, vol. 109; p. 072301-1-072301-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.109.072301

B. Abelev, J. Adam, D. Adamová, A. Adare, M. Aggarwal, G. Aglieri Rinella, A. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, A. Ahmad Masoodi, N. Ahmad, S. Ahn, S. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T. Awes, J. Äystö, M. Azmi, M. Bach, A. Badalà, Y. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. Baral, R. Barbera, F. Barile, G. Barnaföldi, L. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, S. Basu, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, G. Bencedi, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, A. Bergognon, D. Berzano, L. Betev, A. Bhasin, A. Bhati, J. Bhom, L. Bianchi, N. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, S. Bjelogrlic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, S. Böttger, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, B. Boyer, E. Braidot, P. Braun-Munzinger, M. Bregant, T. Breitner, T. Browning, M. Broz, R. Brun, E. Bruna, G. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, F. Carena, W. Carena, N. Carlin Filho, F. Carminati, C. Carrillo Montoya, A. Casanova Díaz, J. Castillo ... (2012). Production of Muons from Heavy Flavor Decays at Forward Rapidity in pp and Pb-Pb Collisions at sqrt[s_{NN}]=2.76¿¿TeV. PHYSICAL REVIEW LETTERS, vol. 109; p. 112301-1-112301-11, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.109.112301

B. Abelev, J. Adam, D. Adamová, A. M. Adare, M. M. Aggarwal, G. Aglieri Rinella, A. G. Agocs, A. Agostinelli, S. Aguilar Salazar, Z. Ahammed, N. Ahmad, A. Ahmad Masoodi, S. U. Ahn, A. Akindinov, D. Aleksandrov, B. Alessandro, R. Alfaro Molina, A. Alici, A. Alkin, E. Almaráz Aviña, J. Alme, T. Alt, V. Altini, S. Altinpinar, I. Altsybeev, C. Andrei, A. Andronic, V. Anguelov, J. Anielski, C. Anson, T. Anticic, F. Antinori, P. Antonioli, L. Aphecetche, H. Appelshäuser, N. Arbor, S. Arcelli, A. Arend, N. Armesto, R. Arnaldi, T. Aronsson, I. C. Arsene, M. Arslandok, A. Asryan, A. Augustinus, R. Averbeck, T. C. Awes, J. Äystö, M. D. Azmi, M. Bach, A. Badalà, Y. W. Baek, R. Bailhache, R. Bala, R. Baldini Ferroli, A. Baldisseri, A. Baldit, F. Baltasar Dos Santos Pedrosa, J. Bán, R. C. Baral, R. Barbera, F. Barile, G. G. Barnaföldi, L. S. Barnby, V. Barret, J. Bartke, M. Basile, N. Bastid, S. Basu, B. Bathen, G. Batigne, B. Batyunya, C. Baumann, I. G. Bearden, H. Beck, I. Belikov, F. Bellini, R. Bellwied, E. Belmont-Moreno, G. Bencedi, S. Beole, I. Berceanu, A. Bercuci, Y. Berdnikov, D. Berenyi, D. Berzano, L. Betev, A. Bhasin, A. K. Bhati, J. Bhom, N. Bianchi, L. Bianchi, C. Bianchin, J. Bielcík, J. Bielcíková, A. Bilandzic, S. Bjelogrlic, F. Blanco, F. Blanco, D. Blau, C. Blume, M. Boccioli, N. Bock, S. Böttger, A. Bogdanov, H. Bøggild, M. Bogolyubsky, L. Boldizsár, M. Bombara, J. Book, H. Borel, A. Borissov, S. Bose, F. Bossú, M. Botje, B. Boyer, E. Braidot, P. Braun-Munzinger, M. Bregant, T. Breitner, T. A. Browning, M. Broz, R. Brun, E. Bruna, G. E. Bruno, D. Budnikov, H. Buesching, S. Bufalino, K. Bugaiev, O. Busch, Z. Buthelezi, D. Caballero Orduna, D. Caffarri, X. Cai, H. Caines, E. Calvo Villar, P. Camerini, V. Canoa Roman, G. Cara Romeo, W. Carena, F. Carena, N. Carlin Filho, F. Carminati, C. A. Carrillo Montoya, A. Casa... (2012). Transverse sphericity of primary charged particles in minimum bias proton–proton collisions at $mathbf{sqrt{s}=0.9},~mathbf{2.76}~mbox{and}~mathbf{7}~mbox{TeV}$. THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS, vol. 72; p. 2124-1-2124-16, ISSN: 1434-6044, doi: 10.1140/epjc/s10052-012-2124-9

21. SENATORE Gaetano

BADALYAN S, KIM C.S, VIGNALE G, SENATORE G. (2007). Exchange and correlation effects on plasmon dispersions and Coulomb drag in low-density electron bilayers. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 75; p. 125321-125332, ISSN: 1098-0121

T. GOKMEN, M. PADMANABHAN, E. TUTUC, M. SHAYEGAN, S. DE PALO, S. MORONI, SENATORE G. (2007). Spin Susceptibility of Interacting Two-dimensional Electrons with Anisotropic Effective Mass. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 76; p. 233301-1-233301-4, ISSN: 1098-0121

LUKE SHULENBURGER, MICHELE CASULA, SENATORE G., AND RICHARD M. MARTIN (2008). Correlation effects in quasi-one-dimensional quantum wires. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 78; p. 165303, ISSN: 1098-0121

S DE PALO, S MORONI, SENATORE G. (2009). Disorder effect on the spin susceptibility of thetwo-dimensional one-valley electron gas. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 42; p. 214013, ISSN: 1751-8121

LUKE SHULENBURGER, MICHELE CASULA, SENATORE G., AND, RICHARD M MARTIN (2009). Spin resolved energy parametrization of aquasi-one-dimensional electron gas. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 42; p. 214021, ISSN: 1751-8121

M MARCHI, S DE PALO, S MORONI, SENATORE G. (2009). Pair distribution functions of the two-dimensionalelectron gas with two symmetric valleys. JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL, vol. 42; p. 214043, ISSN: 1751-8121

M. MARCHI, S. DE PALO, S. MORONI, SENATORE G. (2009). The Correlation Energyand the Spin Susceptibility of the Two-Valley Two-dimensional Electron Gas. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 80; p. 035103-1-035103-7, ISSN: 1098-0121

A. L. SUBASı, , P. PIERI, SENATORE G., AND B. TANATAR (2010). Stability of Sarma phases in density imbalanced electron-hole bilayer systems. PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS, vol. 81; p. 075436-1-075436-7, ISSN: 1098-0121