



21-23 February 2023

Room 3B, Building H3
University of Trieste
and
online
via Microsoft Teams

CROSSNANO 2023
CROSSBORDER WORKSHOP IN NANOSCIENCE AND
NANOTECHNOLOGY

ORGANIZERS

PhD School in Nanotechnology, University of Trieste
Jožef Stefan International Postgraduate School
Jožef Stefan Institute
University of Maribor



FEBRUARY 21

9:00-9:30	OPENING Alberto Morgante – <i>Coordinator of the PhD School in Nanotechnology, University of Trieste</i> Alessandro Baraldi – <i>Delegate for Research and PhD of the University of Trieste</i>			
CHAIR: Alberto Morgante				
	PhD student	Cycle	Supervisor	Title
9:30-9:50	Ferdinando Bassato	37	P. Torelli	The surface reactivity of A site-doped SrTiO ₃ : an ambient pressure NEXAFS experiment
9:50-10:10	Andrea Bogo	37	M. Prato	Synthesis and characterization of nanostructured carbon horns for the electrochemical water splitting
10:10-10:30	Giorgia Demontis	37	M. Lazzarino	Nanomechanical systems for the understanding of cellular mechano-response at the nanoscale
10:30-10:50	Elena Ferraguzzi	37	L. Casalis	Insights into the behavior of cholesterol in the modulation of lipid rafts derived from model membrane systems: their interactions with differently functionalized gold nanoparticles
10:50-11:10	Miriam Marchi*	37	P. Fornasiero	Bismuth-based electrocatalysts for CO ₂ conversion towards value-added products
11:10-11:30	BREAK			
CHAIR: Albano Cossaro				
	PhD student	Cycle	Supervisor	Title
11:30-11:50	Mario Leopoldo Rivera Salazar	37	P. Torelli	Low temperature CO oxidation on lanthanum-iron doped strontium titanate (LFSTO): A perspective with operando ambient pressure NEXAFS spectroscopy
11:50-12:10	Giuseppe Misia*	37	M. Prato	Design, synthesis and application of novel 2D-nanocomposites for biosensing
12:10-12:30	Ilargi Napal Azcona	37	E. Magnano	Soft x-ray absorption spectroscopies of CuNPs in liquids
12:30-12:50	Francesco Piazza	37	I. Donati	Seaweed polysaccharides for novel applications and products
12:50-13:10	Caterina Medeot	37	S. Bonin	AuNPs green synthesis: the effect of natural compounds
13:10-15:10	BREAK			
CHAIR: Paolo Macor				
	PhD student	Cycle	Supervisor	Title
15:10-15:30	Maria Sbacchi	37	M. Prato	From carbon nanodots to protocells: versatile building blocks for novel biomimetic systems
15:30-15:50	Syed Abdul Basit Shah*	37	V. Lughì	Photocatalytic reduction of CO ₂ using semiconductor quantum dots and nanoarchitectonics
15:50-16:10	Beatrice Bartolomei*	36	M. Prato	Chiral carbon dots: towards stereoselective nano-catalysts

16:10-16:30	Nicoletta Braidotti*	36	D. Cojoc	Piezo1 channel investigation in cardiac fibrosis precursor cells mechano-physiology
16:30-16:50	Lorenzo D'Amico*	36	G. Tromba	Imaging and characterization of fibrotic tissues

*online talk.

FEBRUARY 22

CHAIR: Luca Floreano

	PhD student	Cycle	Supervisor	Title
09:30-9:50	Valeria Chesnyak	36	C. Africh	Co incorporated in graphene – a stable single atom catalyst
09:50-10:10	Deepak Dagur	36	P. Torelli	Visible light effects on photostrictive/magnetostrictive PMN-PT/Ni multiferroic heterostructure
10:10-10:30	Ayesha Farooq	36	S. Fabris	Development of high-strength nanostructured multilayers for applications in nuclear fusion reactors
10:30-10:50	Claudio Lentini Campallegio	36	A. Morgante	Charge dynamics in complex 2D heterostructures
10:50-11:10	Veronika Kost*	36	T. Da Ros	Amorphous BNC nanodots for light-emitting devices

11:10-11:30 BREAK

CHAIR: Darja Lisjak

	PhD student	Cycle	Supervisor	Title
11:30-11:50	Carolina Paba	36	L. Casalis	Biophysical study on small extracellular vesicles (sEVs) interaction with model plasma membrane
11:50-12:10	Petr Rozhin	36	S. Marchesan	When carbon nanotubes meet self-organizing peptides
12:10-12:30	Lea Gašparič	-	A. Kokalj	Computational insight into hydrogen evolution reaction on Pt surfaces
12:30-12:50	Luka Skubic	-	B. Likozar	Ru catalyst modelling for ammonia synthesis

12:50-14:50 LUNCH

CHAIR: Loredana Casalis

	PhD student	Cycle	Supervisor	Title
14:50-15:10	Smritirekha Talukdar	36	T. Montini	Electrocatalysis and photocatalysis: pathways for CO ₂ reduction to fuels
15:10-15:30	Martina Zangari	36	L. Vaccari	Study of early interaction mechanism between asbestos fibers and cell proteins by microFITR and TEVC analysis
15:30-15:50	Federica Zingaro	36	G. Gianoncelli	Toxicological assessment of nanoplastics in human macrophages by light and synchrotron techniques
15:50-16:10	Matteo Bisetto	35	P. Fornasiero	A study inside the catalytic behavior of Cu ₂ O nanoparticles
16:10-16:30	Filippo Costa*	35	S. Prato	Imaging and analysis at nanoscale. Merging between SPM and optics

19:30- SOCIAL DINNER (DA PINO, Via Ottaviano Augusto 2B, 34123 Trieste)

FEBRUARY 23

CHAIR: Paola Posocco				
	PhD student	Cycle	Supervisor	Title
9:30-9:50	Carlo Federico Pauletti	37	S. Fabris	Computational modelling of CeO ₂ -CuO catalyst for methane activation and functionalization
9:50-10:10	Magdhi Kirti	35	G. Biasiol	Optimization of in-situ growth of Al/InAs hybrid systems on GaAs for the development of Andreev qubits title
10:10-10:30	Federico Loi	35	A. Baraldi	Core level anomaly in oxidized size-selected Ag _n clusters on graphene
10:30-10:50	Barbara Repič	-	D. Kuščer Hrovatin	Screen-printed graphite-based electrodes for electrochemical detection of Imidacloprid
10:50-11:10	BREAK			
CHAIR: Danjela Kuščer				
	PhD student	Cycle	Supervisor	Title
11:10-11:30	Katarina Žiberna	-	A. Benčan	Effect of heat-treatment on microstructure and mechanical properties of thick films prepared by aerosol deposition
11:30-11:50	Edoardo Raciti	35	M. Prato	Carbon vacancies steer the activity in dual Ni-carbon nitride photocatalysis
11:50-12:10	Aharon Steffè*	35	G. Toffoli	Development of a novel hybrid nanoplatform for theranostic applications in hepatocellular carcinoma (HCC)
12:10-12:30	Michele Zanetti	35	M. Lazzarino	Exploring cardiac mechanobiology using nanotechnology
12:30-14:50	LUNCH			
CHAIR: Alberto Morgante				
14:50-15:10	"FERNANDO TOMMASINI" AWARD "ALESSANDRO DE VITA" AWARD "BEST CAREER" AWARD			
15:10-15:20	CLOSING REMARKS Alberto Morgante – <i>Coordinator of the PhD School in Nanotechnology, University of Trieste</i> Dragan Mihailović – <i>Director of the Centre of Excellence in Nanoscience and Nanotechnology (Ljubljana), Institut Jožef Stefan and University of Ljubljana</i>			

*online talk.