PhD in Physics University of Trieste
XXXVI Cycle

Nuclear, Particle and Astroparticle Physics Courses

Title	Lecturer	Hours	Period
Flavour Physics beyond the Standard Model. Concepts and Experimental Techniques	Diego Tonelli	16	Winter 2020/2021
Introduction to Bayesian Methods	Edoardo Milotti	16	Spring 2021
Experimental Tests of the Standard Model	Fabio Cossutti	16	Spring 2021
Statistical Models and methods for Beyond Standard Model Physics	Vieri Candelise	16	Spring 2021
Silicon detectors and Readout electronics	Valter Bonvicini/ Renata Longo	16	Winter 2020/2021
Advanced data analysis techniques with machine and deep learning	Grazia Luparello	16	Spring 2021
The QCD structure of the Nucleon	Franco Bradamante	16	Spring 2021
The 3D structure of the Nucleon	Anna Martin	16	Spring 2021
Ionising particle detectors. Gas detectors and RICH	Silvia Dalla Torre	16	Spring 2021
QCD matter at extreme conditions	Enrico Fragiacomo	8	Spring 2021
Quark-Gluon Plasma: theory and experimental observables	Ramona Lea	8	Spring 2021
Cosmic Ray and Gamma Ray Astrophysics	Mirko Boezio Francesco Longo	10 6	Spring 2021
Dark Energy and Dark Matter experimental searches	Giovanni Cantatore	8	Autumn 2021
Simulation of particle interactions with matter	Francesco Longo	16	Spring/Summer 2021

Theoretical Physics Courses

Title	Lecturer	Hours	Quando
Foundations of Quantum Mechanics	Luca Ferialdi	32	Winter 2020-2021
Decoherence in open quantum systems	Matteo Carlesso	24	Spring 2021
Complete positivity in quantum information	Fabio Benatti	12	Summer 2021
Advanced topics in quantum field theory	Roberto Valandro / Lorenzo Di Pietro	24	Spring 2021
Introduction to Clifford algebra and spinors	Marco Budinich	24	Winter 2020/2021

Astrophysics Courses

Title	Lecturer	Hours	Quando
Formation of Cosmic Structures	Stefano Borgani / Alexandro Saro	24	Winter 2020/2021
Galaxy Formation	Pierluigi Monaco / Gabriella Delucia	16	Spring 2021
Active Galactic Nuclei	Fabrizio Fiore	12	Spring 2021
Meteorology of Space: From the Universe to the Geosphere	Mauro Messerotti / Anna Gregorio	24	Summer 2021
Stellar nucleosynthesis and chemical evolution of galaxies	Francesca Matteucci	10	Spring 2021
Gamma Ray Bursts: observations and theoretical implications	Francesco Longo	8	Spring 2021

Condensed Matter Courses

Title	Lecturer	Hours	Quando
Low-temperature physics: quantum fluids and superconductivity	Federico Becca	16	Spring 2021
Free electron laser and synchrotron-based spectroscopies: getting to the nanometer with femtosecond resolution	Claudio Masciovecchio	20	Winter 2020 / 2021
Principles of functioning of the FEL	Luca Giannessi	12	Summer 2021
Advanced Spectroscopy of Solids	Fulvio Parmigiani	32	Autumn 2021
Introduction to Density Functional Theory	Maria Peressi	8	Spring 2021
The physics of imaging with x-rays and associated x-ray detectors	Ralph Menk	8	Spring 2021