



# PHD SCHOOL IN PHYSICS, ASTROPHYSICS AND APPLIED PHYSICS

**The 1<sup>st</sup> year students workshop of our PhD School  
will take place on 27<sup>th</sup> and 28<sup>th</sup> September 2023  
at Sala Consiglio, Dept. Physics, via Celoria 16-Milano**

## 27 SEPTEMBER 2023

- 09:30 Welcome (F.Ragusa)**  
**Chairperson: S.Leoni**
- 09:40** Marco Beretta: JUNO: a neutrino liquid scintillator detector.
- 10:00** Sara Cesare: Proof-of-principle test for a charm baryon dipole moment experiment at the LHC.
- 10:20** Giulia Ciconali: Search for shape coexistence in the Selenium isotopes near the N=50 neutron shell closure.
- 10:40** Giacomo Secci: Towards next-generation HPGe detectors for gamma-ray spectroscopy: advances in the N3G experiment.
- 11:00 Coffee Break**  
**Chairperson: B.Caccianiga**
- 11:30** Giacomo Corbari: Shape coexistence of Sn isotopes around A=110.
- 11:50** Pietro Klausner: Nuclear equation of state for the study of the gravitational wave signal in neutron star mergers.
- 12:10** Laura Nasella: Precision measurements of Higgs boson properties with photons at the ATLAS experiment.
- 12:30** Alessandro Sala: Searching for Supersymmetry in Compressed Mass Scenarios Using Soft Displaced Tracks.
- 12:50 Lunch Break**  
**Chairperson: M.Buscaglia**
- 14:00** Samuele Altilia: Quantum communication for electric power systems: from the lab to the real world.
- 14:20** Davide Decastri: Development of a novel platform for the coupling of neuromorphic nanostructured devices with semiconductor microtechnology.
- 14:40** Davide Ferracin: Universal Markovian Closure for Fermionic Environments.
- 15:00 Coffee Break**  
**Chairperson: C.Lenardi**
- 15:30** Lorenzo Balconi: Study and design for the IRIS 10 T HTS Energy Saving dipole Magnet for Accelerators – ESMA.
- 15:50** Alice Margherita Finardi: A novel apparatus for time-resolved optical and Raman spectroscopy: first results on MoS<sub>2</sub>.
- 16:10** Sidra Ibadat: Control of the Enhanced Dielectric Properties of Nanostructured Complex Oxides via Cluster-Assembling.
- 16:30** Giacomo Nadalini: Development of in-sensing computing devices on unconventional substrates for edge- data processing tasks.

## 28 SEPTEMBER 2023

- Chairperson: A.Mennella**
- 09:00** Davide Abriola: Strong and weak gravitational lensing in galaxy clusters.
- 09:20** Rossella Anania: External photoevaporation in protoplanetary discs.
- 09:40** Edoardo Pedicillo: Towards an open source quantum operating system.
- 10:00 Coffee Break**  
**Chairperson: S.Forte**
- 10:30** Matteo Robbiati: Full-stack Quantum Machine Learning.
- 10:50** Andrea Zanetti: New insights on black holes from states counting in conformal field theories.
- 11:10** Melis Seren Celenlioglu: Vehicles Non-Exhaust Emissions: Setup of Experimental Approaches for On-Road Characterization of Tyre Wear And Road Wear Particles.
- 11:30** Paolo Teruzzi: Updating of teaching materials and inquiry-based learning methods for nuclear physics didactics in high schools.

**more information at**

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