



PHD SCHOOL IN PHYSICS, ASTROPHYSICS AND APPLIED PHYSICS

The 1st year students workshop of our PhD School
will take place on 21 and 22 September 2020 using ZOOM
<https://zoom.us/my/aula.consiglio>

21 SEPTEMBER

- 9:00** **Welcome (M. Paris)**
Chairperson: Vera Bernardoni
- 09:10** Elisabetta Carella: The galaxy-halo connection in the presence of massive neutrinos and dynamical dark energy.
- 09:30** Hatice Holuigue: The effect of microenvironment of healthy and diseased cells by mean of Atomic Force Microscopy.
- 09:50** Ewelina Lorenc: The study of the mutual influence of ECM and cells in human peritoneum during cancer progression.
- 10:10** Federico Caimi: Self-assembly driven polymerization of activated nucleotides.
- 10:30** **Break**
Chairperson: Nicola Manini
- 10:50** Stefano Castellini: Experimental study of convection in a layer of liquidwater with thermally insulating boundaries.
- 11:20** Michele Opromolla: Theoretical study of a coherent high repetition rate X-ray Free Electron Laser in the framework of the MariX project.
- 11:40** Alessandro Candeloro: Quantum thermometry in non-equilibrium regime.
- 12:00** Alessandro De Vita: Magnetism and topology of quantum layered materials.

22 SEPTEMBER

- 09:00** *Chairperson: Xavier Roca-Maza*
- 09:10** Eric Ballabene: Search for electroweak production of dark matter particles with the ATLAS detector at the LHC.
- 09:30** Claudio Galelli: Searches for Ultra High Energy Cosmic Ray sources with the Pierre Auger Observatory.
- 09:50** Niccolò Gallice: Development of a photon detection system based on SiPM for neutrino and dark matter detectors.
- 10:10** Federica Piazza: Study of final states with photons and missing transverse momentum with the atlas detector.
- 10:30** **Break**
Chairperson: Giancarlo Ferrera
- 10:50** Marta Poletini: Beta decay studies and search for octupole deformation in heavy nuclei.
- 11:20** Alessandro Candido: Can MS-bar parton distributions be negative?
- 11:40** Marco Rossi: PDFflow: hardware accelerating parton density access.
- 12:00** Roy Stegeman: Parton distributions and machine learning models.
- 12:20** Adriano Viganò: Solution generation techniques in gravitational theories and black holes.
- 12:30** **Conclusions (M. Paris)**

more information at
phd@fisica.unimi.it or <http://phd.fisica.unimi.it>