

University of Florence - Second year PhD seminars in Physics and Astronomy - October 6th – 12th, 2026

Time	Speaker	Preliminary PhD Title	Room
DAY 1: Tuesday, October 6 2026			
10:30 – 11:00	Clarissa Buti	Development of solid-state 3D detectors in diamond for applications with extreme radiation fluxes	Aula Magna - Department of Physics and Astronomy
11:00 – 11:30	Elena Gensini	Measurement of the forward production rate of π^0 meson in very high energy p-O collisions with the Arm2 detector of the LHCf experiment	
11:30 – 12:00	Luca Muccillo	Applications of MultiModal Machine Learning techniques to MultiMessenger astronomy with Gravitational Waves analysis	
12:00 – 12:30	Nicole Orientale	Muography applied to the geophysical survey of terrestrial analogs, for modelling the geological risk associated to the future exploration of the Moon and Mars	
12:30 – 14:00	Lunch break		
14:00 – 14:30	Leda Berni	Strutture chimiche nell’alone Galattico in preparazione alla nuova strumentazione, in particolare a WST e alle sue surveys	Aula Magna - Department of Physics and Astronomy
14:30 – 15:00	Francisco Cuadra	Galactic archeology in the local group with spectroscopic observations	
15:00 – 15:30	Valentina Verdiani	Galactic archeology in the local group with spectroscopic observations	
DAY 2: Wednesday, October 7 2026			
14:30 – 15:00	Pier Paolo Bonaccini	Spettroscopia di nano emettitori per lo sviluppo di piattaforme a semiconduttore per sorgenti a singolo fotone	Aula Magna - Department of Physics and Astronomy
15:00 – 15:30	Lorenzo Fossetti	Virtual Refraction: comparison of methods for refraction in domestic settings	
15:30 – 16:00	Gabriele Calusi	Formation of alternative Band Gaps in photonic Quasicrystals	
16:00 – 16:30	Coffee break		
DAY 3: Thursday, October 8 2026			
10:00 – 10:30	Marco Zamboni	Numerical simulations of many-body systems and magnetic molecules	Aula Magna - Department of Physics and Astronomy
10:30 – 11:00	Gianluca Peri	On the development of machine learning techniques for time series analysis and applications	
11:00 – 11:30	Luca Tolve	Computational design of multivalent, multispecific synthetic antibodies for imaging and immunotherapy of hard-to-treat cancers	
11:30 – 12:00	Coffee break		
DAY 4: Friday, October 9 2026			
11:00 – 11:30	Francesco Maio	Direct detection and spectral characterization of protoplanets: from VLT/ERIS to ELT/MICADO & ELT/METIS	Room 119 - Department of Physics and Astronomy
11:30 – 12:00	Dheeraj Malik	Development of the adaptive Optics System MORFEO for the ELT Telescope: Wavefront Sensing Techniques and Advanced Control for Multi-Conjugate Systems	
12:00 – 12:30	Marianna Michelagnoli	Spacecraft and Payload interactions with the space environment	
12:30 – 14:00	Lunch break		
14:00 – 14:30	Matteo Borrello	Hunting for dark sector signals at accelerators and in the sky	Room 119 - Department of

14:30 – 15:00	Francesco Palli	Quantum and non-equilibrium corrections to the energy-momentum-stress tensor at finite temperature in general relativity	Physics and Astronomy
DAY 5: Monday, October 12 2026			
9:30 – 10:00	Caterina Bracci	Machine Learning in astronomy using large spectroscopic surveys	Room 119 - Department of Physics and Astronomy
10:00 – 10:30	Bianca Moreschini	Theoretical, Observational Astrophysics and related Instrumentation and Technology	
10:30 – 11:00	Coffee break		
14:30 – 15:00	Sneha Nedhath Divakaran	Search and characterization of binaries in star cluster with time-series photometry and large photometric, spectroscopic, and astrometric surveys	Room 119 - Department of Physics and Astronomy
15:00 – 15:30	Elisabetta Reggiani	Stellar rotation as a means to study exotic stellar populations in star clusters	
15:30 – 16:00	Laurenz Felix Steinbauer	Analysis of the surface chemistry of stars with distorted shape, caused by fast rotation or by the interaction with close companions	
16:00 – 16:30	Matteo Ceci	Multiwavelength observations of the interplay between AGN and their host galaxy	
16:30 – 17:00	Coffee break		