

14th Young Researcher Meeting Program

30 September 2025	
Auditorium - Rectorate building	
09:00 - 10:00	Registration desk and poster placement
10:00 - 10:20	Opening Remarks
SESSION 1 - Particle Physics	
10:20 - 11:00	Invited talk: Prof. Lorenzo Pagnanini <i>Status and perspectives of $0\nu\beta\beta$ decay</i>
11:00 - 11:25	Camilla Bonomo <i>First Operation of Superconducting Qubits as Particle Detectors</i>
11:25 - 11:55	Coffee break
11:55 - 12:20	Andrea Melchiorre <i>First measurement of GaAs as a scintillating calorimeter: achievements and prospects</i>
12:20 - 12:45	Giuseppe Maria Oppedisano <i>Optimizing Trigger and Event Labeling in the CYGNO Experiment Using Machine Learning</i>
12:45 - 13:10	Sylvie Pietrarota <i>Search for sterile neutrinos with CUPID-0</i>
13:15 - 15:00	Lunch break
SESSION 2 - Particle Physics	
15:00 - 15:25	Livia Petrillo <i>Search for axion signatures with CUPID-0</i>
SESSION 3 - Matter Physics	
15:25 - 15:50	Matteo Iannetti <i>The electronic structure of a doped Mott-Hubbard surface</i>
15:50 - 16:20	Coffee break
16:20 - 16:45	Michele Bagagli <i>Electronic Properties of Twisted Trilayer MoS₂: A Tight-Binding Approach</i>
16:45 - 17:10	Orlando Castellano <i>Depth Profiling the Hydrogenation of Multi Walls Carbon Nanotubes with Soft-to-Hard X-ray Photoemission Spectroscopy</i>
17:10 - 18:00	Poster&Wine session
01 October 2025	
Auditorium - Rectorate building	
SESSION 1 - Astrophysics	
9:30 - 10:10	Invited talk: Prof. Pasquale Blasi <i>The high energy of the Universe</i>
10:10 - 10:35	Martina Alla <i>Telescope baffling for CMB Polarization experiment SWIPE/LSPE</i>
10:35 - 11:00	Rodrigo Alberto Torres Saavedra <i>A New Simulation Tool to Estimate Synchrotron X-ray Fluxes from EAS</i>
11:00 - 11:30	Coffee break
11:30 - 11:55	Shruti Mukherjee <i>Time-Dependent Leptonic Modeling of the High-Redshift Blazar 4C +01.02 Using Multiwavelength Observations</i>
11:55 - 12:20	Pawan Tiwari <i>Probing the Physics of GRB Afterglows Through Multi-Wavelength Observations from keV to GeV</i>
12:20 - 12:45	Samwel Amani Njoroge <i>Imaging Polarised Radio Continuum Emission in and around NGC 1097</i>
12:45 - 13:10	Sara Glorio <i>Extreme Mass-Ratio Inspirals and scalar fields on generic orbits: characterization of the gravitational wave spectrum with MEW</i>
13:15 - 15:00	Lunch break
SESSION 2 - Matter Physics	
15:00 - 15:25	Pasquale Bosso <i>Theoretical description of comb production in doubly-resonant quadratic systems</i>
15:25 - 15:50	Elena Campagna <i>Strain Effect on Transfer Doping in PQWs of Ge/SiGe</i>
15:50 - 16:20	Coffee break
16:20 - 16:45	Tsotne Dadiani <i>Tin dichalcogenide for solar photoelectrochemical water splitting</i>
16:45 - 17:10	Massimo Ciacchi <i>Study of Transport and Structural Properties of Aqueous Solutions using a Graph Neural Network</i>
02 October 2025	
Guided tour of LAquila	

9:30	Meeting point at Rectorate Auditorium
10:00	Start of the tour
10:00-12:30	Tour
13:00 - 14:30	Lunch break
	Guided tour of Laboratori Nazionali del Gran Sasso
15:40	Meeting point at Rectorate Auditorium
16:00	Departure
16:00-18:30	Visit
20:30	Social dinner at Ristorante da Ernesto

03 October 2025 Auditorium - Rectorate building	
10:00 - 11:00	Lectio Magistralis: Prof. Marica Branchesi <i>Listening to the Universe: Ten Years of Gravitational-Waves and Multi-Messenger Discoveries</i>
	SESSION 1 - Theoretical Physics
11:00 - 11:25	Lorenzo Grimaldi <i>One-loop mass corrections of interacting string states</i>
11:25 - 12:00	Coffee break
	SESSION 2 - Nuclear Physics
12:00 - 12:25	Davide Germani <i>The inner structure of the X(3872) via Born-Oppenheimer approximation and radiative decays</i>
12:25 - 12:40	Best Poster Award ceremony
12:40 - 12:50	Closing Remarks
12:50	Lunch break

Posters	
Name Surname	Poster Title
Sindorjon Ashurov	<i>The ZIRE Detector on the NUSES Mission: A Pathfinder for Low-Energy Cosmic- and Gamma-Ray Observations</i>
Antonio Caporale	<i>On-surface molecular recognition driven by chalcogen bonding</i>
Simone Di Muzio	<i>Born-Oppenheimer and DFT Insights into Polariton Chemistry</i>
Margherita Noia	<i>First characterization of a Li₂WO₄ crystal as a cryogenic scintillating calorimeter for CEvNS and spin-dependent dark matter searches</i>
Iqra Siddique	<i>Detection of 0.1-50 MeV cosmic photons and Gamma Ray Bursts</i>
Izumi Takimoto Schmiegelow	<i>Probing Modified Gravity with Gravitational Wave Strong Lensing</i>