



**UNIVERSITÀ  
DI TRENTO**

**Department of Physics**  
Doctoral Programme in Physics

## **Seminars for the admission to the third year (38th cycle)**

**Tuesday October 1, 2024 at 9:00 a.m.**  
at the seminar room of the Theoretical Physics group  
of the Department of Physics) 2<sup>nd</sup> floor

### Committee 1

<b>PhD student</b>	<b>Seminar title</b>
<b>Ali Salamat</b>	Non- Hermitian Photonics
<b>Ballini Edoardo</b>	Measurement-induced gauge protection in digital quantum simulations of Lattice Gauge Theories
<b>Bottarelli Alberto</b>	Audit algorithms for quantum computation
<b>Brianti Greta</b>	Deep Learning Techniques in High Energy Physics with the ATLAS experiment
<b>Nicolaidis Riccardo</b>	Observing low-energy particles from space
<b>Chaker Iyadh</b>	An Empirical Study of Random Compilation for Fast Hamiltonian Simulation with State Purification

September 27, 2024

Prof. Raffaello Potestio



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## **Seminars for the admission to the third year (38th cycle)**

**Wednesday October 2, 2024 at 12:30**

**at the seminar room of the Theoretical Physics group  
of the Department of Physics) 2<sup>nd</sup> floor**

Committee 1

<b>PhD student</b>	<b>Seminar title</b>
<b>Martini Alessandro</b>	Exploiting entropy in signal-to-noise separation: application to gravitational waves searches
<b>Nagies Sebastian</b>	High-performance quantum annealing protocols for trapped-ion quantum computers with magnetic gradient induced coupling
<b>Cecchini Chiara</b>	Scale-invariant inflation
<b>Rogora Chiara</b>	Physics of ultracold spin mixtures in low and stable magnetic field environment
<b>Staffoli Emiliano</b>	Photonic neural networks for error compensation in optical telecom links
<b>Zawislak Tomasz</b>	Sound propagation in dipolar supersolids

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## **Seminars for the admission to the third year (38th cycle)**

**Wednesday October 2, 2024 at 15:30**

**at the seminar room of the Theoretical Physics group  
of the Department of Physics) 2<sup>nd</sup> floor**

Committee 2

<b>PhD student</b>	<b>Seminar title</b>
<b>Brugnara Fabio</b>	Probing the THz acoustic dynamics in disordered systems via neutron scattering experiments
<b>Carnovale Francesco</b>	MIMOSA project: Optical absorption spectra of silica matrices and molecular dynamics simulations studies
<b>Corradini Andrea</b>	A study of non-thermal melting from first principles
<b>Festi Irene</b>	Dynamical perspective of stability in glasses
<b>Mocatti Stefano</b>	Ultrafast Dynamics of Photoexcited Materials: An Integrated Approach Using Semiconducting Bloch Equations and Ehrenfest Dynamics
<b>Furci Matteo</b>	Investigating the Effects of Photoinduced Anharmonicities in Ultrafast Structural Transitions

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## **Seminars for the admission to the third year (38th cycle)**

**Thursday October 3, 2024 at 15:00**

**at the seminar room of the Theoretical Physics group  
of the Department of Physics) 2<sup>nd</sup> floor**

### Committee 2

<b>PhD student</b>	<b>Seminar title</b>
<b>Maestri Luca</b>	Time-resolved spectroscopic investigation of N <sub>2</sub> /H <sub>2</sub> low-temperature plasmas
<b>Mele Margherita</b>	When soft matters, a finite net works: leveraging statistical mechanics in the study of finite-sized neural networks
<b>Michielan Matteo</b>	Gas phase chemistry in the Interstellar Medium: investigating the reactivity of Si-, P-, and S-bearing species
<b>Fiorello Camilla</b>	Training STEM teachers and investigating student mental models to promote sustainability and scientific citizenship
<b>Novi Inverardi Giovanni</b>	Investigation of the early/middle stages of the protein encapsulation mechanism in silica gels through Molecular Dynamics simulations
<b>Oesterle Alan Sven</b>	Verification of the radical pair theory of magnetoreception

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