



# Quantum Science Generation (QSG) Workshop

Trento, 6-10 May 2024

Quantum technology is a fast-developing field with a wide range of promising near-term applications, from quantum simulation of quantum many-body systems to hybrid quantum-classical algorithms. The aim of the Quantum Science Generation Workshop 2024 is to cover some of the most important aspects of those developments and provide an equilibrated up-to-date overview of the most active areas of research within this field. The workshop's topics will include (i) optical and condensed matter platforms for quantum computing; (ii) quantum simulation of problems of interest for condensed matter, nuclear, high-energy, or gravitational physics; and (iii) hybrid quantum algorithms for optimization problems. The workshop is specifically addressed to young researchers at the PhD/PostDoc level, active in different areas of quantum science and technologies with the aim of promoting and initiating fruitful scientific discussions.

## Keynote Speakers

Virginia D'Auria (Institut de Physique de Nice), Claudiu Genes (Max Planck Institute for the Science of Light), Artur Izmaylov (University of Toronto), Frank Pollmann (Technische Universität München), Carlo Sias (LENS, INRIM), Giuseppe Vallone (Università di Padova), Nathan Wiebe (University of Toronto)

## Organizers

Valentina Amtrano (INFN Ferrara), Alessio Baldazzi (Università di Trento-NanoLab), Carlos Benavides-Riveros (Università di Trento, INO-CNR Pitaevskii BEC Center), Anna Berti (INO-CNR Pitaevskii BEC Center), Daniele de Bernardis (INO-CNR c/o LENS), Alberto Nardin (LPTMS Université Paris Saclay), Veronica Panizza (Università di Trento, INO-CNR Pitaevskii BEC Center, INFN), Luca Vespucci (Università di Trento, INFN-TIFPA, ECT\*)

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