UNIVERSITÀ DI TRENTO
Dipartimento di Fisica

Quantum Photonics: novel developments

April 20, 2026 – 9:00 a.m.

Room A 212, Polo Ferrari 1

Quantum photonics has emerged as one of the most successful hardware platforms for implementing novel quantum systems and devices. This workshop offers a deep dive into the state of the art of the field, spotlighting the Italian research landscape through a curated series of talks.

By bridging the gap between academia, research institutes, and industry, we explore the full lifecycle of quantum innovation- from fundamental science to commercial application.

- 9.00 **Quantum information processing with frequency-bins and integrated photonics**, Massimo Borghi (University of Pavia)
- 9.40 **Correlation imaigng, from 3D to hyperspectral**, Milena D'Angelo (University of Bari)
- 10.20 **Integrated Photonics for Quantum Technologies: platforms, challenges, and opportunities**, Pierfrancesco Ulpiani (Leonardo S.p.A.)
- 11.00 BREAK
- 11.20 **Quantum Photonics@FBK**, Mher Ghulinyan (Bruno Kessler Foundation - FBK)
- 12.00 **Rotonium quantum processor: Benchmarking and Validation**, Nicolò Leone (Rotonium srl)
- 12.40 **Integrated photonic quantum memristors for neuromorphic computing**, Stefano Azzini (University of Trento)

Organising Committee

Prof. Lorenzo Pavesi

Q@TN Rotonium FONDAZIONE BRUNO KESSLER