

"FROM QUANTUM ASTRONOMY TO QUANTUM COMMUNICATIONS"

GOLF CLUB ASIAGO
VIA MELTAR 2, ASIAGO (VI), ITALY
9th December - 10th December 2025

On 9–10 December 2025 in Asiago, QTI will host the 2nd edition of its high-level scientific conference "From Quantum Astronomy to Quantum Communications", an interdisciplinary event dedicated to quantum astronomy and quantum communication from both academic and industry perspectives.

Building on the success of the 2023 edition, the conference, supported by the QuRe (Quantum Repeaters) project, will bring together leading representatives from the national and international scientific, technological, and innovation communities, once again serving as a platform for insightful exchange at the intersection of quantum astronomy and quantum communications.

Topics will span high-precision photon-based observation, enabling technologies for quantum communication, the development of terrestrial and satellite-based QKD networks, and their real-world applications.

Set in one of Italy's symbolic locations for quantum astronomical research, the Conference will feature renowned experts in quantum physics, telecommunications engineering, and cybersecurity.

The program also includes outreach moments, networking opportunities, and a technical tour of the Asiago Astronomical Observatories.

SCIENTIFIC COMMITTEE

Davide Bacco, *University of Florence*
Cesare Barbieri, *University of Padua*
Massimo Inguscio, *Univeristà Campus Biomedico, Roma*
Giampiero Naletto, *University of Padua*
Tommaso Occhipinti, *QTI*
Luca Zampieri, *INAF-Astronomical observatory of Padua*
Alessandro Zavatta, *QTI, CNR-INO*

ORGANISING COMMITTEE

Guglielmo Brancato, *QTI*
Ludovica Ciarraivano, *QTI, IMT-Scuola Alti Studi Lucca*

"FROM QUANTUM ASTRONOMY TO QUANTUM COMMUNICATIONS"

TUESDAY
9th December

GOLF CLUB ASIAGO
VIA MELTAR 2, ASIAGO (VI), ITALY
9th December - 10th December 2025

13:00 PM

WELCOME & REGISTRATION

13:20 PM

WELCOME REMARKS

Roberto Rigoni Stern, *Mayor, Asiago*
Bianca Poggianti, *INAF-Osservatorio Astronomico di Padova*

13:40 PM

KEYNOTE

Cesare Barbieri, *University of Padua*
Chair Tommaso Occhipinti

2:00 PM

QUANTUM ASTRONOMY

PART I

Giampiero Naletto, *University of Padua, Iqueye in Gemini South*
Mauro Centrone, *INAF-OAR, Laser Guide Stars Technologies for Adaptive Optics*
Adriano Ghedina, *TNG-INAF, The Cosmic Bell Experiment*
Francisco Prada, *IAA-CSIC, La Palma Quantum Interferometer*
Giovanni Pareschi, *INAF, ASTRI Gamma Ray Telescope Experiments*
Luca Zampieri, *INAF, Science and Instruments for CTA and Astri*
Chair Cesare Barbieri

3:40 PM

BREAK

4:00 PM

PART II

Gabriele Rodeghiero, *INAF, Optical solutions for intensity interferometry observations with IACTs*
Andrea Possenti, *INAF, Timing and Quantum Computing at INAF*
Andrea Bulgarelli, *INAF, Quantum Computing at INAF*
Claudio Pernechele, *INAF, An All-spheric Unobstructed Optical Terminal For Freespace Quantum Communication*
Giampaolo Panariello, *Nokia*
Andrej Čadež, *University of Ljubljana*
Chair Simone Zaggia

6:00 PM

TRANSFER & VISIT

ASIAGO OBSERVATORY (transfer provided)

7:30PM

RETURN TO ASIAGO

8:00 PM

SOCIAL DINNER

ASIAGO CITY CENTER

WEDNESDAY

10th December

09:00 AM

WELCOME & INTRODUCTION

09:15 AM

KEYNOTE

Angela Sara Cacciapuoti, *University of Naples Federico II*
Chair Davide Bacco

09:45 AM

QUANTUM COMMUNICATION SYSTEMS: GROUND TO SPACE AND BACK

Veronica Fernandez Marmol, *CSIC*
Paola Parolari, *Politecnico di Milano*, *QKD coexistence with classical telecommunication signals in fiber optic networks*
Luca Dellantonio, *University of Exeter*, *Self-configuring Quantum Networks for Qber minimization*
Michael Galili, *DTU, QCI.DK*
Chair Ilaria Vagniluca

11:30 AM

BREAK

11:50 AM

FROM FOUNDATIONS TO THE FUTURE

Gianfranco Cariolaro, *University of Padua*
Francesco Saverio Cataliotti, *University of Florence*, *Quantum Repeaters (QuRe)*
Chair Sara Restuccia

12:30 AM

INDUSTRY ROUNDTABLE: A EUROPEAN PERSPECTIVE

INTRODUCTION

PART I
Antonella Sanguineti, *Sparkle*
Annachiara Pagano, *Fibercop*
Francesco Tammaro, *Ribbon*
Riccardo Martinotti, *Fortinet*
Cristian Perissinotto, *CISCO*
Moderated by Eleonora Testa, *Telsy*

1:30 PM

LUNCH on site

3:00 PM

PART II
Petra Scudo, *EU Joint Research Centre*
Niccolò Bellini, *2ND SPACE*
Roberto Biasi, *Micrograte*
Angelo Giove, *IVERT*
Moderated by Davide Bacco, *QTI*

3:45 PM

ADVANCING QUANTUM COMMUNICATIONS: FROM THEORY TO INFRASTRUCTURE

Alessia Allevi, *University of Insubria*
Cosmo Lupo, *Politecnico di Bari*
Alice Meda, *INRIM*
Chair Saverio Francesconi

5:00 PM

CONCLUSIONS