

## Assemblea generale Q@TN 2022

30 settembre 2022

FBK - Sala Stringa – Via Sommarive 18, Povo

### AGENDA

- 9.00 Saluti e introduzione  
Lorenzo Pavesi, Direttore Q@TN
- 9.15 *Hybrid algorithms for enabling learning mechanisms in quantum machines*  
Davide Pastorello, DISI and TIFPA - INFN
- 9.45 *Quantum Photonic Circuits with monolithically integrated Silicon Single Photon Detectors*  
Martino Bernard, FBK
- 10.15 Interventi dottorandi (15 minuti a testa)
- 10.30-11.00 coffee break
- 11.00 Interventi dottorandi (15 minuti a testa)
- 12.30-14.00 lunch break (free)
- 14.00 *NASA's Cold Atom Laboratory: a multi-user facility of quantum gas research on the International Space Station*  
Matteo Sbroscia
- 15.00 *Quantum Communications Industrialized*  
Tommaso Occhipinti, QTI
- 16.00-16.30 coffee break
- 16.30 Relazioni sui progetti
- Quantum computing:*
1. Andrea Fontana, INFN-Sezione di Pavia, *A first experience in modeling many electron states with D-Wave*
  2. Davide Pastorello, DISI and TIFPA-INFN, *Testing the learning performances of a quantum annealer*
  3. Alex Gnech, Jefferson Lab, VA, USA, *A generalized eigenvalue problem via a quantum annealer*
- Technological platforms:*
1. Andrea Vinante, FBK, *The Juventus project: progress on the design, fabrication and test of flux-pumped Josephson Parametric Amplifiers*
  2. Mirko Lobino, Università di Trento, *Cat-state generation in waveguide*
  3. Damiano Giubertoni, FBK, *GeV GeVlon-Q Project: first production of single photon emitters in diamond by FIB in the Q@TN consortium*
- 18.30 Conclusioni