
Mini Workshop: Optical Integration of Cryogenic Quantum Technologies

May 21 - 22, 2025 | Helsinki, Finland

Programme Draft

Wednesday, May 21, 2025

Intro session, chaired by Antti Kemppinen

- 14:00 - 14:10 Jorden Senior / Frank Wilhelm-Mauch: *Opening words*
- 14:10 - 14:30 Frank Wilhelm-Mauch: *Introduction to OpenSuperQPlus*
- 14:30 - 15:15 *Introductions & pitches*

15:15 - 15:45 *Coffee & group photo*

Session 1, chaired by Frank Wilhelm-Mauch

- 15:45 - 16:15 Thomas Werner: *Interfacing superconducting qubits with optics*
- 16:15 - 16:35 Kevin Kiener: *Optically Mediated Control for Superconducting Qubits*
- 16:35 - 17:05 Antti Kemppinen: *Cryo3.0?*

17:05 - 17:20 *Short break*

Session 2, chaired by Jorden Senior

- 17:20 - 17:40 Jukka Viheriälä: *Development of cryogenic optoelectronics for high bandwidth optical I/O*
- 17:40 - 18:00 Katja Kohopää & Marco Marín Suárez: *Wrap-up & road mapping*

19:00 *Dinner*

Thursday, May 22, 2025

Session 3, chaired by Mark Bieler

- 09:00 - 09:30 Robert Stockill: *TBD*
- 09:30 - 10:00 Julien Laurat: *Quantum Networking Powered by Optical Memories*
- 10:00 - 10:30 Claudia Hoessbacher: *Light Bridges in Quantum Computing*

10:30 - 11:00 *Coffee break*

Session 4, chaired by Claudia Hoessbacher

- 11:00 - 11:30 Stefan Koepfli: *TBD*
- 11:30 - 12:00 Mark Bieler: *Why do we need electric and optoelectronic metrology for cryogenic quantum technologies?*
- 12:00 - 12:20 Christopher Axline: *Superconducting modulators for more scalable qubit readout*
- 12:20 - 12:30 Katja Kohopää & Marco Marín Suárez: *Wrap-up & preparation for discussions*

12:30 - 13:30 *Lunch*

Session 5, chaired by Katja Kohopää & Marco Marín Suárez

- 13:30 - 13:50 Peter Granum: *Photonic Quantum Computing at NQCP*
 - 13:50 - 14:10 Mikko Möttönen: *Millikelvin electronics for qubit readout*
 - 14:10 - 14:30 *Group discussions on road map*
 - 14:30 - 15:00 *Road mapping discussion, chaired by Antti Kemppinen*
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More about the workshop: <https://opensuperqplus.eu/news-and-events/satellite-workshop>