Workshop schedule

Tutorial (90 mins) · Long talk (45 + 15 mins) · Standard talk (30 + 10 mins) · Lightning (8 + 2 mins) · Meals / breaks / free time · Other

Monday
Benchmarking

09:00 – 11:15 Coffee / travel time
Bernoulli or travel time

11:15 – 12:45 R. Blume-Kohout
Tutorial on Benchmarking Quantum Hardware

12:45 – 14:15 Lunch

14:15 – 14:25 Helen Propson

14:25 – 15:05 Dominik Hangleiter
In-situ benchmarking of fault-tolerant quantum circuits

15:05 – 15:15 Cristina Cirstoiu

15:25 – 15:55 Unconference topic proposal discussion

16:15 – 17:15 Aram Harrow
Colloquium @ CE 1 3 (10 min walk from Bernoulli)

Tuesday
Sensing

09:00 – 10:00 Breakfast / coffee
Bernoulli

10:00 – 11:30 M. Perarnau-Llobet
Tutorial on Quantum Sensing

11:30 – 12:00 Break

12:00 – 12:40 Ishaan Kannan
Quantum Advantage for Sensing Properties of Classical Fields

12:45 – 16:35 Lunch / free time
Unconference (Benasque-style) free discussion time in the Bernoulli centre

16:30 – 17:30 Richard Allen
Quantum Computing Enhanced Sensing

17:30 – 18:00
Sridhar Prabhu, Wenchao Xu; Andrew Sornborger

18:00 – 19:00 Poster Session

Wednesday
Hamiltonian learning

09:00 – 10:00 Breakfast / coffee
Bernoulli

10:00 – 11:30 Matthias Caro
Tutorial on Hamiltonian Learning

11:30 – 12:00 Break

12:00 – 12:40 Barbara Kraus
Bounded-Error Quantum Simulation via Hamiltonian and Lindbladian Learning

12:45 – 16:30 Lunch / free time
Unconference (Benasque-style) free discussion time in the Bernoulli centre

16:30 – 17:30 Quynh Nguyen
Learning quantum Gibbs states locally and efficiently

17:40 – 18:20 Daniel Stilck França
Adversarially robust Hamiltonian learning

18:20 – 19:00 Alexey Gorshkov
Quantum sensor networks

19:30 – 20:00 Conference dinner
Brasserie de Montbenon

Thursday
Noise learning / Multi-copy learning

09:00 – 10:00 Breakfast / coffee
Bernoulli

10:00 – 10:40 Susanne Yelin
Hamiltonian / Lindbladian learning

10:40 – 11:30 Christa Zoufal; Thomas Schuster; Alireza Seif; Manuel Gessner; Zhong-Xia Shang

11:30 – 12:00 Break

12:00 – 12:40
Laurin Fischer; Felix Binder; Shao Hen; Jessica Bavaresco

12:45 – 14:15 Lunch

14:15 – 14:55 Richard Kueng
An infinite hierarchy of multi-copy quantum learning tasks

14:55 – 15:35 Sisi Zhou
Instance-optimal high-precision shadow tomography with few-copy measurements (virtual)

15:35 – 16:15 Alex Grilo
Verification of noisy quantum computation with entangled servers

16:15 – 20:00 Free time
(Maybe head to the lake for discussions / swimming / an impromptu BBQ if the weather is nice?)

Friday
Bosonic & Fermionic systems / Verification

09:00 – 10:00 Breakfast / coffee
Bernoulli

10:00 – 11:30 Antonio Mele
Tutorial on Learning in Bosonic and Fermionic systems

11:30 – 11:50 Break

11:50 – 12:10 Ulysse Chabaud; sign up slots

12:10 – 12:45 Omar Fawzi
Quantum learning theory with fault-tolerant components

12:45 – 14:15 Lunch

14:15 – 14:55 Elham Kashefi
Quantum verification in practical settings