



# Quantum Technologies for Fundamental Physics

## Wednesday, 6 September 2023

### Quantum Computation and Simulation: Session 1 (09:00 - 10:30)

-Conveners: Doga Kurkcuoglu

time	[id] title	presenter
09:00	[62] Quantum computing for HEP application	CARRAZZA, Stefano
09:25	[63] Quasiprobabilistic approaches for quantum error mitigation and open system dynamics simulation	ORTH, Peter
09:50	[64] The Quantum Price of Particle Physics	LAMM, Hank
10:15	[65] Discussion	

### Quantum Computation and Simulation: Session 2 (11:30 - 13:00)

-Conveners: Hank Lamm

time	[id] title	presenter
11:30	[66] Making the case for a quantum computer for quantum gravity	IORIO, Alfredo
11:55	[71] Quantum reservoir computing and Quantum Extreme Learning machines	PALMA, Massimo
12:20	[68] Hybrid Photonics Platform for Quantum Information Processing	SCIARRINO, FABIO
12:45	[69] Discussion	

### Quantum Computation and Simulation: Session 3 (15:00 - 16:05)

-Conveners: Massimo Palma

time	[id] title	presenter
15:00	[70] Operational Quantum Mereology	ZANARDI, Paolo
15:25	[72] An invitation to quantum estimation theory	PARIS, Matteo
15:50	[73] Discussion	