

Quantum Technologies for Fundamental Physics

Saturday, 2 September 2023

Physics Case for Quantum Technologies: Welcome Remarks and Introduction (09:00 - 10:00)

-Conveners: Anna Grassellino; Valter Bonvicini

time	[id] title	presenter
09:00	[19] SQMS - Welcome Remarks and Introduction	GRASELLINO, Anna
09:10	[20] SQMS Italy - Welcome Remarks and Introduction	BONVICINI, Valter
09:20	[21] DOE Introductory Remarks	PATWA, Abid
09:30	[18] INFN Present and Future Perspectives	PALLAVICINI, Marco

Physics Case for Quantum Technologies: Session 1 (10:00 - 10:30)

-Conveners: Valter Bonvicini; Anna Grassellino

time	[id] title	presenter
10:00	[75] Introduction to superconducting qubits for QIS & beyond	KOCH, Jens

Physics Case for Quantum Technologies: Session 2 (11:30 - 13:00)

-Conveners: Valter Bonvicini; Anna Grassellino

time	[id] title	presenter
11:30	[74] History and frontiers of SRF technology and application.	PADAMSEE, Hasan
12:00	[76] Loophole-free Bell Inequality Violation with Superconducting Circuits*	WALLRAFF, Andreas
12:30	[23] Performance and scalability tradeoffs in a superconducting qubit processor architecture	BESTWICK, Andrew

Physics Case for Quantum Technologies: Session 3 (15:00 - 16:30)

-Conveners: Hasan Padamsee

time	[id] title	presenter
15:00	[77] The Case for Testing the Modifications of Quantum Mechanics	KAPLAN, David
15:30	[24] Quantum noise in interferometric gravitational wave detectors	ZENDRI, Jean-Pierre
16:00	[26] Quantum sensing with a microwave photon counter	BERTET, Patrice