Session Program

7–11 Dec 2026



26th Australian Institute of Physics Congress and the Australian and New Zealand Conference on Optics and Photonics

AIP QST: Trapped-ion dynamics & quantum control

The University of Sydney , Belinda Hutchinson Building
Abercrombie St & Codrington St NSW 2008

Thursday 10 December

11:00

AIP QST: Trapped-ion dynamics & quantum control

Session |
Location: The University of Sydney , Belinda Hutchinson Building, Abercrombie St & Codrington St NSW 2008

11:00–11:15

Implementing a Mølmer–Sørensen Interaction in Two-Dimensional Ion Crystals in a Penning Trap

Speaker
Gustavo Cafe De Miranda

11:15–11:30

Programmable site-selective spin control in rotating Penning-trap ion crystals

Speaker
Nihar Makadia

11:30–11:45

Regimes of fast entanglement in trapped-ion quantum computers

Speaker
Isabelle Savill-Brown

11:45–12:00

Singularity-free dynamical invariants-based quantum control

Speaker
Ritik Sareen

12:00–12:15

Reconstructing the phonon distribution of trapped ions out of the Lamb-Dicke regime

Speaker
Prachi Nagpal

12:15–12:30

Optimising a numerical simulator connects to results in quantum control theory

Speaker
Alex Tritt

12:30