**Session Program**

**6–11 Dec 2026**




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

## *AIP QST: Annealing, criticality & nonequilibrium dynamics*

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

# Friday 11 December

09:00

## AIP QST: Annealing, criticality & nonequilibrium dynamics

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

09:00–09:30 **Finite-temperature criticality through quantum annealing**

**Speaker**
Francesco Campaioli

09:30–09:45
**Variance-based schedules for Gibbs-state preparation for classical and quantum optimisation algorithms**

09:45–10:00
**Stabilising the dispersive Quantum Rabi Model for practical digital quantum simulation of quantum phase transition behaviours**

10:00–10:15
**Floquet engineered Nonequilibrium Dispersion Interactions and Coulomb Drag in current-carrying nanostructures**

**Speaker**
Christine Little

10:15–10:30
**Validation and calibration of quantum hardware via the quantum Mpemba effect**

**Speaker**
Francesco Campaioli

10:30