QUBIC Themes Workshop
Draft Program

Date: 5-7th August 2025
Location: Katoomba, NSW

Organised by: Prof Lezanne Ooi, Prof Irina Kabakova, Dr Martin Stroet

Location: Carrington hotel in Katoomba, NSW. The workshop will be co-located with the QUBIC Winter School (4-5th August), to minimise travel expenses.

Goal: The QUBIC Themes Workshop provides a forum for sharing scientific findings and discussing progress and collaborative activities related to the three QUBIC research themes Molecules-Cells-Brain. This year's Workshop combines all themes in one two-day program of presentation sessions and activities to create truly cross-disciplinary, cross-theme environment for scientific discussion, promoting learning and igniting collaboration across the nodes and the research themes. The focus of the workshop will also be on training ECRs and HDR students in public speaking and scientific presentation.

Expected number of participants: We expect approximately 60 participants attending these Themes Workshop, including QUBIC CIs, AIs, EMCRs and HDR students.

Registration: Online registration for this event will open shortly.

Proposed program

The program will aim to provide opportunities for training ECRs and HDR students in public speaking as well as bring focus to recent progress in research themes, planning new research activities and igniting cross-node collaboration.

Day 1, Tuesday 5th August

17.00 Arrive at the Carrington hotel in Katoomba, NSW
19.00-21.00 Dinner/social

Day 2, Wednesday, 6th August

9.00 -10.30 Session 1 (90 min)
Proposed theme: quantum methods for molecular modelling
10.30-11.00 Tea/coffee break
11.00-12.30 Session 2 (90 min)
Proposed theme: quantum and classical methods for molecular sensing/detection
12.30-13.30 Lunch
13.30-15.00 Session 3 (90 min)
Proposed theme: many-molecule interactions and emergent phenomena
15.00-17.00 Free time (possibly bush walk or discussion time)
17.00-18.30 Industry led activity (1 hour)
19.00-21.00 Dinner

Day 3, Thursday, 7th August

9.00-10.30 Session 1 (90 min)
Proposed theme: quantum techniques for cellular imaging
10.30-11.00 Tea/coffee break
11.00-12.30 Session 2 (90 min)
Proposed theme: quantum techniques for neuronal/brain imaging
12.30-13.30 Lunch
13.30-15.00 Session 3 (90 min)
Proposed theme: Workshop wrap up and planning session