

Mathematical and Computational Challenges in Quantum Computing Reunion Conference 2

Sunday June 7, 2026

- 1:30 *Bus Departs UCLA/Faculty Center*
- 4:30–6:30 *Check in at Lake Arrowhead*
- 6:30–8:00 *Dinner*
- 8:00–9:00 *Joint Session: Ruizhe Zhang (CQCRC2), Jacob Foster (MOIRC1), Ionut Farcas & Frank Jenko (MFELA)*
- 9:00–10:00 *Social Hour (Iris)*

Monday June 8, 2026

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00–9:40 **Di Fang** (Duke University)
Mixing time of open quantum systems via hypocoercivity
- 10:00–10:40 **Diyi Liu** (Lawrence Berkeley National Laboratory)
Driven dissipative ground state preparation
- 11:00–11:40 **Ke Wang** (University of Michigan)
System Bath Interaction models beyond Lindblad
- 12:00–1:00 *Lunch (hosted by IPAM)*
- 2:00–2:40 **Maria Boada** (University of Texas at San Antonio)
Spurious transmon excitations: All the things we learned by modeling real quantum hardware
- 3:00–3:40 **Ahmad Majed Alkadri-Arafa** (University of California, Berkeley (UC Berkeley))
After Quantum Assembly: Variable Coefficients, Boundary Conditions, and Output in Qu-FEM
- 6:30–8:00 *Dinner*
- 8:00–8:50 *Joint Session: Tim Wildey, "Optimal Control, Design, and Multi-fidelity Uncertainty Quantification for High-fidelity Models" (MFELA)*
- 9:00–10:00 *Social Hour (Iris)*



Tuesday June 9, 2026

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00–9:40 **Ruizhe Zhang** (Purdue University)
Quantum Filtering and Analysis of Multiplicities in Eigenvalue Spectra
- 10:00–10:40 **Jose Morales Escalante** (University of Texas at San Antonio)
Wigner formulation of open quantum systems: from optimization in phase-space to discrete formulations
- 11:00–11:40 **Soo-Jong Rey** (Kwangwoon University)
The Discard ZX Calculus as a Framework for Open Quantum Systems – From Infrared Safety to Certified Simulation
- 12:00–1:00 *Lunch (hosted by IPAM)*
- 3:30–6:30 *Afternoon Free*
- 6:30–8:00 *Dinner*
- 8:00–8:50 *Joint Session: James Evans, TBD (MOIRC1)*
- 9:00–10:00 *Social Hour (Iris)*

Wednesday June 10, 2026

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00–9:40 **Marius Junge** (University of Illinois at Urbana-Champaign)
The Hidden nature of Non-Markovian evolution
- 10:00–10:40 **Tyler Kharazi** (University of California, Berkeley (UC Berkeley))
Provable Quantum Speedups for Reaction-Rate Estimation from High-Dimensional Fokker-Planck dynamics
- 11:00–11:40 **Rahul Sarkar** (University of California, Berkeley)
TBA
- 12:00–1:00 *Lunch (hosted by IPAM)*
- 1:00–5:00 *Afternoon Free*
- 6:30–8:30 *Dinner*
- 8:00–8:50 *Joint Session: Di Fang, "Applied and Numerical Analysis for Quantum Computing" (CQCRC2)*
- 9:00–10:00 *Social Hour (Iris)*

Thursday June 11, 2026

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00–9:40 **Yasuyuki Kawahigashi** (University of Tokyo)
Anyons in tensor networks and operator algebras
- 10:00–10:20 **Lucas Tecot** (University of California, Los Angeles (UCLA))
Quantum Error Correction Decoding
- 10:30–10:50 **Scott Nie** (University of California, Los Angeles (UCLA))
Operator Bounds on Magic and Non-Local Magic
- 11:00–11:40 **Dima Shlyakhtenko** (Institute for Pure and Applied Mathematics)
Matrices with CAR entries
- 12:00–1:00 *Lunch (hosted by IPAM)*
- 2:00–5:00 *Afternoon Free*
- 6:30–7:45 *Dinner*
- 7:45–8:50 *Joint Session: Jeff Hittinger “The Genesis Mission” (LLNL), Dima Shlyakhtenko “AIPM” (IPAM)*
- 9:00–10:00 *Social Hour (Iris)*

Friday June 12, 2026

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00–9:30 *Bus Departs Lake Arrowhead to LAX*
- 11:00–12:00 *Checkout*
- 12:00–1:00 *Lunch (hosted by IPAM)*
- 1:30 *Bus Departs Lake Arrowhead (LAX/UCLA)*

