Bridging the Gap Between NISQ and FTQC

Tuesday February 17, 2026

8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*

8:55–9:00 *Welcome and Opening Remarks*

9:00 *SESSION CHAIR: Tuesday AM Andrew Baczewski*

9:00–9:40 **Katerina Gratsea** (University of Wisconsin-Madison)
Achieving Utility-Scale Applications through Full Stack Co-Design of Fault Tolerant Quantum Computers

9:50–10:05 *Break*

10:05–10:45 **Nicole Bellonzi** (Apollo Quantum)
What Does "Chemically Useful" Actually Mean?

10:55–11:10 *Break*

11:10–11:50 **Peter Johnson** (Apollo Quantum)
Evaluating Progress Toward Quantum Utility

12:00–2:00 *Lunch (on your own)*

2:00 *SESSION CHAIR: Tuesday PM Katerina Gratsea*

2:00–2:40 **Matthew Otten** (University of Wisconsin-Madison)
Classical-First Pathways to Early Fault-Tolerant Quantum Chemistry

2:50–3:05 *Break*

3:05–3:45 **Alexander Kemper** (North Carolina State University)
A quantum computing approach to efficiently simulating correlated materials using impurity models and dynamical mean field theory

3:55–4:10 *Break*

4:10–4:50 **Pooya Ronagh** (University of Waterloo)
Leveraging Periodicity as a Quantum PDE Solver

5:00–5:20 *Lightning Poster Round*

5:20–7:00 *Poster Session & Reception (Hosted by IPAM)*

Wednesday February 18, 2026

8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*

9:00 *SESSION CHAIR: Wednesday AM Peter Johnson*

9:00–9:40 **Artur Izmaylov** (University of Toronto)
Quantum SENiority-based Subspace Expansion (Q-SENSE) and Its Extensions: Linear Combinations of Short-Circuit Unitary Transformations for the Electronic Structure Problem

9:50–10:05 *Break*

10:05–10:45 **Daan Camps** (Lawrence Berkeley National Laboratory)
Measurement-Driven Quantum Algorithms: Efficient Eigensolvers and Evaluation of Matrix Functions

10:55–11:10 *Break*

11:10–11:50 **Sukin Sim (Dylan)** (PsiQuantum)
Quantum phase estimation in the language of digital signal processing

12:00–2:00 *Lunch (on your own)*

2:00 *SESSION CHAIR: Wednesday PM Matthew Otten*

2:00–2:40 **Itay Hen** (University of Southern California (USC))
A ~NISQ-Era Quantum Simulation Algorithm with Near-Optimal Precision Scaling

2:50–3:05 *Break*

3:05–3:45 **Zhiyan Ding** (University of Michigan)
Ground State Preparation for Near-Term Devices using System-Bath Coupling Dynamics

3:55–4:10 *Break*

4:10–4:50 **William Huggins** (Google Inc.)
The FLuid Allocation of Surface code Qubits (FLASQ) cost model for early fault-tolerant quantum algorithms

Thursday February 19, 2026

8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*

9:00 *SESSION CHAIR: Thursday AM Pooya Ronagh*

9:00–9:40 **Jakob Kottman** (Universität Augsburg)
Holistic Approaches to Quantum Computation: Software and Algorithmics

9:50–10:05 *Break*

10:05–10:45 **Kevin Obenland** (Lincoln Laboratory, Massachusetts Institute of Technology)
Application Driven Evaluation of Fault-Tolerant Quantum Computing Architectures

10:55–11:10 *Break*

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11:10–11:50 **Athena Caesura** (PsiQuantum)
Deeper Compilation in the Active Volume Architecture

12:00–12:15 *Group Photo*

12:15–2:00 *Lunch (on your own)*

2:00 *SESSION CHAIR: Thursday PM Athena Caesura*

2:00–2:40 **Austin Fowler** (Stairway Invest)
Compiling quantum algorithms to 2D nearest neighbor architectures

2:50–3:05 *Break*

3:05–3:45 **Eddie Schoute** (IBM Research)
Tour de gross: A modular quantum computer based on bivariate bicycle codes

3:55–4:10 *Break*

4:10–4:50 **Michael Beverland** (IBM)
Real-time decoding for fault-tolerant quantum computers

Friday February 20, 2026

8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*

9:00 *SESSION CHAIR: Friday AM Eddie Schoute*

9:00–9:40 **Ciaran Ryan-Anderson** (Quantinuum)
Experimental Quantum Error Correction at Quantinuum

9:50–10:05 *Break*

10:05–10:45 **Andrew Baczewski** (Sandia National Laboratories)
An approach for calculating astrophysical opacities on quantum computers

10:55–11:10 *Break*

11:10–11:50 **Dripto Debroy** (Google)
Adapting QEC circuits to dropout using LUCI

12:00–2:00 *Lunch (on your own)*

2:00 *SESSION CHAIR: Friday PM Ciaran Ryan-Anderson*

2:00–2:40 **Madelyn Cain** (California Institute of Technology)
Fault-tolerant, universal quantum processing with neutral atoms

2:50–3:05 *Break*

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3:05–3:45 **Ophelia Crawford** (Riverlane)
Some aspects of hardware-aware quantum error correction

3:55–4:10 *Break*

4:10–4:50 **Adam Holmes** (NVIDIA)
From NISQ to Fault Tolerance: Architecting the Accelerated Quantum Supercomputer