

Scaling Quantum Systems: Integrating Quantum Hardware with Accelerated Computing

A breakfast briefing hosted by Quantum Machines

- **When:** March 18, 8:30-9:30 a.m. MT
- **Where:** APS Global Physics Summit press room (Colorado Convention Center, room 608), breakfast provided

Overview:

Quantum computing is shifting from record-setting qubit counts to the harder challenge: running quantum hardware as a stable, integrated system.

This roundtable brings together leaders from Quantum Machines, Qolab, and the Niels Bohr Institute/MIT to discuss what's now limiting progress — from fast, unexpected coherence dynamics to the need for real-time feedback and hybrid quantum–classical control.

The core question: what must change for quantum processors to move from impressive demonstrations to practical, fault-tolerant machines?

EXCLUSIVE: Be one of the first to learn about Quantum Machines' latest announcement, which promises to shorten timelines to useful quantum computing.

The speakers

Yonatan Cohen, chief technology officer of Quantum Machines, will explain how hybrid quantum–classical control, real-time feedback, and low-latency decision-making are becoming core requirements for practical operation — especially as the field moves into error correction, mitigation, and adaptive workflows.

John Martinis, 2025 Nobel laureate and co-founder of Qolab, will share his insights into translating high-performance superconducting qubits into a scalable, repeatable engineering pathway. John will speak to what “practical implementation” really means as systems grow: manufacturability, architecture choices, reliability, and the operational realities of building quantum computers that can run consistently beyond lab demos.

Fabrizio Berritta, the Marie Skłodowska-Curie postdoctoral fellow at MIT and member of the Neils Bohr Institute team that recently published [a *Physical Review X* paper](#) on super-fast fluctuation detection, will share a concrete, timely example of the new bottlenecks that emerge at scale: fast, unexpected fluctuations in qubit performance (including rapid coherence changes) and what that breaks in traditional calibration assumptions.

Press registration:

Members of the media (staff journalists, freelancers, public information officers, and students/postdocs enrolled in science writing programs) [can register for the Global](#)

[Physics Summit](#) at no cost to attend this event. [Sign up for APS press credentials](#) to verify eligibility. For questions, please contact the [APS media team](#).