

Session Program

15-18 Jun 2026



**Radiation Impacts in Superconducting Qubits
2026 (RISQ26)**

Oral Presentations

University of Wisconsin, Madison

Tuesday 16 June

09:00

Oral Presentations: Kick-Off

Session | **Location:** University of Wisconsin, Madison | **Convener:** Britton Plourde

09:00–09:15 **Kick-Off & Welcome**

Speaker
Britton Plourde

09:15–10:15 **Plenary Overview**

Speaker
Daniel Baxter

10:15

10:45

Oral Presentations: Industry

Session | **Location:** University of Wisconsin, Madison | **Convener:** Vladislav Kurilovich

10:45–11:15

Correlated Error Bursts in a Gap-Engineered Superconducting Qubit Array

Speaker
Alex Opremcak

11:15–11:45

Fast Measurements of the Impacts of Ionizing Radiation on Superconducting Qubits

Speaker
Bradley Christensen

11:45–12:00 **Discussion**

12:00

13:30

Oral Presentations: Afternoon Session

Session | **Location:** University of Wisconsin, Madison | **Convener:** Brent VanDevender

13:30–14:00

Recovery Dynamics of a Gap-Engineered Transmon after a Quasiparticle Burst

Speaker
Heekun Nho

14:00–14:30

Detection of Spatiotemporally Correlated Errors in OCS Transmons and Fluxonium

Speaker
Jeffrey Gertler

14:30–15:00 **Phonon-Only Events and Correlated Quasiparticle Poisoning**

Speaker
Britton Plourde

15:00–15:15 **Discussion**

15:15

15:45

Oral Presentations: Backgrounds**Session** | **Location:** University of Wisconsin, Madison | **Convener:** Daniel Baxter

15:45-16:15

Using Classical Athermal Phonon Sensor Technology as a Complementary Tool to Understand Quasiparticle Poisoning in Qubits**Speaker**

Matt Pyle

16:15-16:45

Qubit error bursts in superconducting quantum processors of Quantum Inspire: quasiparticle pumping and anomalous time dependence**Speaker**

Marios Samiotis

16:45-17:15

QUALIPHIDE-FIR dark matter experiment and LEE**Speaker**

Lanqing Yuan

17:15-17:30

Discussion

17:30

Wednesday 17 June

09:00

Oral Presentations: Theory Primer

Session | **Location:** University of Wisconsin, Madison | **Convener:** Vladislav Kurilovich

09:00–09:30

Effect of quasiparticles on the parameters of a gap-engineered transmon

Speaker

Leonid I. Glazman

09:30–10:00

Correlated Error Bursts in a Gap-Engineered Superconducting Qubit Array

Speaker

Gabrielle Roberts

10:00–10:15 **Discussion**

10:15

10:45

Oral Presentations: Co-located Sensors

Session | **Location:** University of Wisconsin, Madison | **Convener:** Brent VanDevender

10:45–11:15

The LLNL Cosmic Sandwich - an experimental and theoretical approach towards understanding non-equilibrium energy deposition in superconducting devices

Speaker

Dr Yaniv Rosen

11:15–11:45

A Cryogenic Muon Tagging System Integrated with a Superconducting Qubit Device for Radiation-Induced Error Mitigation

Speaker

Tanay Roy

11:45–12:15

Combining qubit arrays and TES sensors to understand and mitigate the effects of background radiation

Speaker

Joel Ullom

12:15–12:30 **Discussion**

12:30

14:00

Oral Presentations: Chip Response - Calibration & Modeling

Session | **Location:** University of Wisconsin, Madison | **Convener:** Noah Kurinsky

14:00–14:30 **Progress at the CLIQUE Facility**

Speaker

Tom McJunkin

14:30-15:00

Measuring and modeling the impact of radiation on superconducting qubits protected through gap engineering

Speaker

Doug Pinckney

15:00-15:15

Radioassay of Materials in Superconducting Qubit Systems and Development of Alpha-Decay Calibration Sources for Radiation Upset Studies

Speaker

Isaac Arnquist

15:15-15:30

Alphas as a Source of Chip-Wide Correlated Errors

Speaker

Samuel Watkins

15:30-15:45

Discussion

15:45

16:15

Oral Presentations: Spin Qubits - Overlapping Communities

Session | **Location:** University of Wisconsin, Madison | **Convener:** Jonathan Cripe

16:15-16:45

Radiation-induced offset charge jumps in Si/SiGe quantum dot qubits

Speaker

Mark Eriksson

16:45-17:15

Investigating Effects of Gamma Radiation on Spin Qubits in HRL SLEDGE Devices

Speaker

Joshua Lou

17:15-17:30

Discussion

17:30

Thursday 18 June

09:00

Oral Presentations: Chip Response - Event Reconstruction

Session | **Location:** University of Wisconsin, Madison | **Convener:** Daniel Baxter

09:00–09:30 **Response of qubits to particles and thermal phonons**

Speaker

Alberto Ressa

09:30–10:00 **Particle impact energy reconstruction using transmons**

Speaker

Emanuela Celi

10:00–10:30 **SQUATs: Qubit-Based Sensors for Dark Matter**

Speaker

Hannah Magoon

10:30–10:45 **Discussion**

10:45

11:15

Oral Presentations: Wrap-Up

Session | **Location:** University of Wisconsin, Madison | **Convener:** Britton Plourde

11:15–11:45 **G4CMP Workshop Summary**

11:45–12:15 **Close-Out**

12:15–12:45 **Discussion**

12:45