Welcome from the Center Directors and organizing committee





Travis Humble, Director Lead lab: Oak Ridge





Anna Grassellino, Director Lead lab: Fermilab





Andrew Houck, Director Lead lab: Brookhaven



LABORATORY FOR **PHYSICAL SCIENCES**

Jon Cripe, Program Manager Laboratory for Physical Sciences

Daniel Baxter, FNAL/NU (SOC chair, QSC) Laura Cardani, INFN (SQMS) Jon Cripe, LPS Jonathan DuBois, LPS Farah Fahim, FNAL (QSC) Enectali Figueroa-Feliciano, NU/FNAL (QSC) Anna Grassellino, FNAL/NU (director, **SQMS**) Andrew Houck, Princeton (director, C2QA) Travis Humble, ORNL/UTK (director, QSC) Andrew Kubik, SNOLAB Tanay Roy, FNAL (SQMS) Brent VanDevender, PNNL/UW (C2QA)











Goals of the workshop

- Growing interest and activities around the topic of radiation impact on qubit performance/errors
- Connect experts to ensure awareness of all ongoing efforts
 - NQI Centers have recently been formed and new activities and facilities exist at the DOE centers
- Connect quantum and other communities (eg particle physics) who have relevant expertise in this topic and create a new community
- Discuss high priority next steps and opportunities for coordination/collaboration









Desired workshop outcomes

- Whitepaper for the community (and for program managers/funding agencies) outlining summary of the workshop
- Hopefully we use these two days of presentations and discussions to answer questions:
- Is there a scientific consensus on the magnitude of the effect of radiation on different qubit devices?
- How does the effect vary for different geometries or materials?
- Have we fully disentangled radiation effects from other noise processes?
- Are there gaps in current measurements methodologies, facilities and diagnostics to understand all mechanisms in play?
- Generally, what are some key milestones and priorities for the next years?
- Are there collaborative opportunities?







