Northwest Quantum Nexus Seminar Series: Engineering Quantum Defects for Quantum Network Applications

Kai-Mei Fu, University of Washington

Wednesday, September 2, 2020 - 3:00pm

See details for virtual meeting info

Point defects in crystals are the solid state analog to trapped ions. Thus these “quantum defects” have gained popularity as a qubit candidate for scalable quantum networks. Kai-Mei Fu from the University of Washington will introduce some of the basic quantum defect properties desirable for quantum network applications and give some illustrative examples of recent successes toward scalable quantum networks.

Her talk will cover:

• How single defects in crystals can be utilized to realize a quantum information network
• What properties of defects are important for quantum information applications
• How to measure these properties
• Outstanding challenges in defect engineering that will require innovative solutions

Hosted by the Northwest Quantum Nexus (NQN), a coalition led by the U.S. Department of Energy’s Pacific Northwest National Laboratory, Microsoft Quantum, and the University of Washington. These web-based seminars feature experts on quantum computing and its applications, and support NQN’s goal of creating a vibrant industry that will contribute to the economic vitality of the region. For questions, contact diane.stephens@pnnl.gov.

See Virtual Meeting Here