Call for Proposals: Seed Grant Program in Quantum Information Science and Engineering

Overview

The Center for Quantum Information Science and Engineering (C-QISE) invites proposals for its Seed Grant Program in QISE. This program aims to catalyze research activities that advance the frontiers of quantum science, engineering, and technology. We are particularly interested in innovative ideas that will position researchers to obtain external funding, collaborate with other C-QISE members, and contribute to the development of quantum technologies.

Key Research Areas

Proposals should align with one or more of the following topics in QISE:

- **Quantum Materials and Devices**: Novel materials and platforms for quantum computing, sensing, and communications.

- **Quantum Algorithms and Simulation**: Development of new algorithms, simulations, and machine learning approaches for solving computational problems using quantum platforms.

- **Quantum Characterization and Measurement**: Techniques to improve the precision of quantum measurement, noise reduction in quantum systems, and quantum metrology.

- **Quantum Systems Integration/Instrumentation**: Innovations in integrating quantum systems, from scalable quantum architectures to interconnecting quantum devices with classical platforms.

- **Quantum Sensing and Communications**: New methods for advanced quantum sensors and quantum communication networks

Eligibility

- The Seed Grant is open to all the faculty members and research scientists. However, the PI should be a current member (faculty/research scientist) of C-QISE.

- Multi-disciplinary and collaborative projects that include partners across different academic disciplines or departments are highly encouraged.

Funding

- The individual award will be up to $10,000, depending on the scope and needs of the proposed research.

- Funding end date: 05/31/2025.

Proposal Submission Guidelines

- **Proposal Length**: The entire proposal, including all components, must not exceed 3 pages.

- **Proposal Format**:
  - **Cover Page**: Project title, principal investigator (PI) and co-PIs, affiliation, and contact information.
  - **Abstract**: A brief description of the project, its objectives, and expected outcomes (maximum 300 words).
  - **Research Plan**:
    - Background and significance of the proposed work

- Objectives and specific aims
- Methodology and project timeline
  - o **Innovation and Impact**: Describe how the project pushes the boundaries of QISE and its potential for external funding and/or commercialization.
  - o **Budget Justification**: Provide a detailed breakdown of how the funds will be utilized.

Review Criteria

Proposals will be evaluated based on the following criteria:

- **Scientific Merit**: The significance and originality of the proposed research.
- **Feasibility**: The adequacy of the proposed methodology and the ability of the team to execute the project within the funding and time constraints.
- **Innovation**: The potential for the project to lead to breakthroughs in QISE and subsequent external funding.

Submission Process

- Proposals must be submitted as a single PDF file to jftian@uwyo.edu by **01/10/2025**.
- Late or incomplete submissions will not be considered.

Inquiries

For further details or any questions, please contact Dr. Jifa Tian at jtian@uwyo.edu.