



Purdue Quantum Science
and Engineering Institute



STUDENT SEMINAR SERIES ON RECENT QUANTUM ADVANCES

Wednesday, Sept 7, 5:30 - 6:30 PM
In **MSEE B012** With Refreshments
All are welcomed

We will explain the basic concepts and experimental platforms in the quantum science and technology field and review recent groundbreaking results. For more information, please visit purdue.link/qseminar.

This week's speaker: Ramya Suresh

Ph.D. Student in the Department of Physics and Astronomy

Superconducting Qubits, Hybrid Devices, and Circuit Architectures

Superconducting circuits are a popular platform for quantum computing and simulations, demonstrating several advantages such as improved coherence and robustness compared to trapped-ion, NV center, or ultracold-atom technologies. Custom circuits can be easily designed to mimic the physics of natural or artificial systems, making them relevant to a wide range of research fields. Over the years, qubit architectures have evolved towards improved scalability, lower losses, and improved qubit-qubit connectivity. In this talk, I will be introducing the physics of superconducting circuits, recent developments in qubit architecture, and hybrid devices that combine electromagnetic qubit modes with other non-electromagnetic modes and give rise to rich physics.

SPONSORS

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