PURDUE UNIVERSITY | Purdue Quantum Science and Engineering Institute

IQ PARC

STUDENT SEMINAR SERIES ON RECENT QUANTUM ADVANCES

FALL 22 EVERY WEDNESDAY **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.

Ramya Suresh — *Sept 7 No. 2*

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

Superconducting Qubits, Hybrid Devices, and Circuit Architectures

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.

Xinchao Zhou — *Sept 14 No. 3*

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

Atom-light interaction with cold atoms on a nanophotonic circuit

Combining cold atoms with nanophotonic microring resonator for creating strong atom-photon coupling and photon-mediated atom-atom interactions. The related recent experimental progresses about photon-mediated interaction in cavity QED and waveguide QED will be discussed.

Alexandria Moore — *Sept 21 No. 4*

Doctoral Student, Electrical Engineering

Examining quantum states in high-dimensional systems

Both polarization and frequency entangled photons are used to introduce various means of analyzing quantum states. Bell state analzers (BSA), quantum state tomography (QST), and quantum entanglement certification are covered. Recent work on high-dimensional entanglement certification is presented.

SPONSORS

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