

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.

**Bowen
Yan**

Sept 28
No. 5

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

A Brief Introduction of Topological Quantum Computation

I will start with basic ideas of quantum computation such as braiding, fusion space and some famous constructions of topological computational model. Moreover, I would talk about a recent dynamically generated model.

**Saumitra
Phatak**

Oct 5
No. 6

Grad student in the Dept of
Physics and Astronomy

Preparation of ultracold LiCs molecule for quantum applications

Using techniques of doppler and sub-doppler cooling, we are preparing rovibrational ground state of LiCs ultracold molecule in a tweezer, that will be used for quantum computation and simulation. Starting with the background of Ultracold field, after explaining our setup, I will develop motivation for quantum applications in this talk.

**Zixuan
"Andrew" Hu**

Oct 19
No. 7

Post doc research associate
Department of Chemistry

A general quantum algorithm for simulating open quantum dynamics

Open quantum dynamics studies the time evolution of a system interacting with a bath. We present a general quantum algorithm for simulating open quantum dynamics, which is based on the unitary dilation theory. The algorithm has been applied to simulating the FMO dynamics on the IBM quantum simulator.

SPONSORS

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