

Joint Quantum Seminar

Wednesday, February 27, 4:00 pm
Jefferson 250

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“Quantum algorithms and simulation for quantum many-body systems”

Quantum many-body systems are very hard to simulate, as computational resources (time and memory) typically grow exponentially with system size. However, quantum computers or analog quantum simulators may perform that task in a much more efficient way. In this talk, I will first review some of the quantum algorithms that have been proposed for this task and then explain the advantages and disadvantages of analog quantum simulators. I will also describe a theoretical proposal to solve quantum chemistry problems with such devices.

Student Presentation will begin at 4:00
(Yao Wang – “Pump-Induced Superconductivity and Higgs Oscillations”)
Guest Presentation will begin at 4:30 PM
Refreshments will be provided

