

Department of Physics - Optics Seminar  
mini-series of **zoom** lectures on

## “Quantum simulations with superconducting qubits”

Quantum computers made of superconducting qubits offer a novel paradigm of driven many-body quantum systems. The key strength of this platform is the possibility to tune and measure each qubit individually. But they also have important limitations, such as their digital approach, associated with their future goal of solving complex quantum information algorithms. This series of talks will review some recent experiments aimed at using digital quantum computer to simulate interesting many-body effects.

Wednesday, May 27, 12:40 (Israel time) \*\*\* note: special time \*\*\*

**Frank Pollmann – Technical University of Munich**

“Efficient simulations of quantum many-body systems on a quantum computer”

Wednesday, June 3<sup>rd</sup>, 12:00 (Israel time)

**Dimitris Angelakis – Centre for Quantum Technologies Singapore & Technical University of Crete**

“Spectroscopic signatures of localization with interacting photons in superconducting qubits”

Wednesday, June 10, 12:00 (Israel time)

**Prasanta K. Panigrahi - IISER Kolkata**

“Simulation of coupled photons and cavity dynamics on IBM quantum computer”

Wednesday, June 17, 12:00 (Israel time)

**Titus Neupert- University of Zurich**

“Solving a small Hubbard model on IBM’s quantum computer”

Please register at <http://tiny.cc/opticsbiu>

Zoom meeting room: **994 2307 7426**

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