



Solid State Institute
המכון למצב מוצק

TECHNION
Israel Institute
of Technology



הטכניון
מכון טכנולוגי
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SEMINAR

סמינר

Design, fabrication, and measurement of superconducting quantum circuits

Chen Mor

M.Sc. Student of Assistant Professor Shay Hacoen-Gourgy

Department of Physics
Technion

Abstract

Superconducting circuits realize a quantum optical laboratory and is one of the leading platforms for quantum computation and simulation. It employs superconducting qubits as its building blocks, embedded within superconducting cavities. I will discuss the building of a new superconducting circuits lab at Technion and the process of design and fabrication of such circuits. In the end I will present progress towards implementing a new multi-qubit computational gate, which we term "Zeno-Gate". In this scheme we show how the Zeno effect, that hinders motion for an observed quantum state, can be used to create a multi-qubit entangling gate between non-interacting qubits.

*Refreshment at 12:15.

*כיבוד: 12:15

ההרצאה תתקיים ביום רביעי, ה-1.1.2020 בשעה 12:30*
באודיטוריום המכון למצב מוצק, קומת כניסה

The lecture will take place on Wednesday, 1.1.2020 at 12:30*
at the Solid State Institute auditorium, entrance floor

Host: Assistant Professor Yoav Sagi