Joint Quantum Sciences Seminar

Wednesday, December 4, 4:00 pm Jefferson 250

Prof. Leo Kouwenhoven

Microsoft Quantum Delft

"Majorana Qubits"

Qubits are the building blocks for quantum computers. The qubit hardware needs to be as robust as possible in order to allow scaling towards circuits with many qubits. We investigate Majorana qubits where information is stored nonlocally and therefore protected against basic decoherence mechanisms. We use semiconductor nanowires proximitized by superconductors as the material for realizing Majorana zero-modes. Nanowire networks are needed in order to manipulate the Majoranas as qubits and perform qubit operations. We will report on the Majorana qubit progress at Microsoft.

> Student Speaker at 4:00pm Guest Presentation will begin at 4:30 PM Refreshments will be provided



Harvard Quantum Initiative

