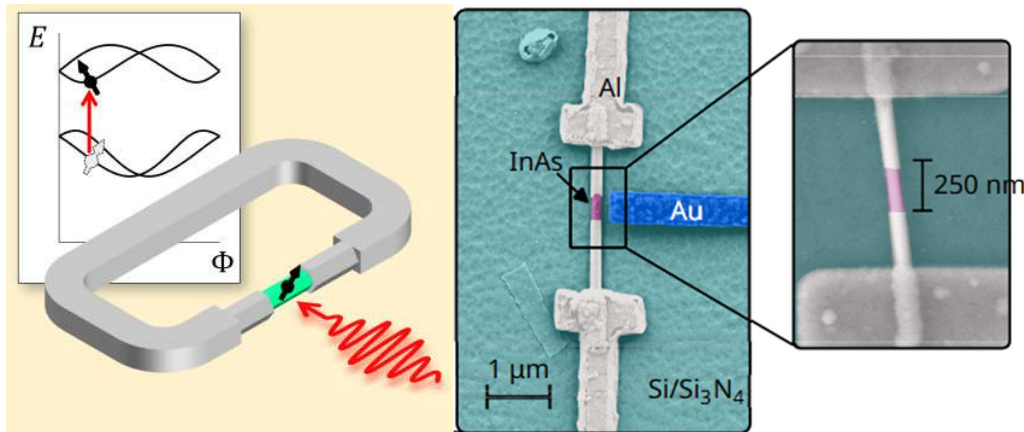


PhD position: Superconducting qubits based on hybrid nanostructures

Condensed Matter Physics Center (IfiMAC)

Universidad Autónoma de Madrid



Project

We are searching for a motivated student to participate in a joint theoretical-experimental PhD project focused on the study of superconducting qubits based on hybrid nanostructures.

The project aims to explore quantum devices that employ elements based on hybrid superconductor-semiconductor nanostructures, which brings a rich physics and added functionalities when compared to conventional superconducting qubits (e.g., Andreev bound states, spin-orbit interaction and electrostatic tunability).

The research will involve the design and fabrication of hybrid superconducting devices (using e.g., e-beam lithography), and circuit quantum electrodynamics measurements at low temperatures, as well as the theoretical analysis of their properties.

Candidates

Applicants should preferably have a bachelor in Physics and a masters in Condensed Matter Physics or related subjects.

Contact

If you are interested or would like to know more about the position, please contact Professors Eduardo Lee (eduardo.lee@uam.es) or Alfredo Levy Yeyati (a.l.yeyati@uam.es).