

February 2022 - Postdoctoral position at the Quantum Computing Technology Group - IFAE and the Institute of Microelectronics of Barcelona, IMB-CNM-CSIC

The Quantum Computing Technologies (QCT) group at the Institute for High Energy Physics (IFAE) and the Institute of Microelectronics of Barcelona (IMB-CNM-CSIC) offer a *joint postdoctoral position within the project Nanofabrication-Enhanced Superconducting Qubit Quality (NESQQ)*, funded by the Spanish Ministry of Science and Innovation.

Project NESQQ aims at the improvement of superconducting qubit quality by combining nanofabrication and noise filtering techniques. The project will look at improving qubit coherence time and parameter reproducibility by reduction of on-chip microscopic flux and charge noise following state-of-the-art nanolithography and processing techniques. This approach includes reducing the presence of spurious two-level fluctuators and quasiparticles by, on one hand, dedicated surface passivation techniques and, on the other hand, introducing novel materials in the qubit device production.

Interested candidates are expected to:

- Hold a **doctoral degree in Quantum Physics**,
- Be experienced in **experimental techniques**, in at least one of the following areas:
 - superconducting devices
 - microwave quantum coherent control,
 - device fabrication,
 - cryogenics

Applications should be sent to pforndiaz@ifae.es and gemma.rius@csic.es. They should include an **updated CV** with a **letter of intent or motivation**, and arrange for **3 letters of recommendation**. The appointment will be for a **2 years term**, with the possibility to renew for a third year.

Proposed start of the appointment: May 2nd, 2022.

The application will be open until the position is filled.

For further information, you may contact pforndiaz@ifae.es.

Closing date: Open until the position is filled, not before March 14th.

IFAE is an equal opportunity employer committed to diversity in the workplace, and we welcome applications from all qualified candidates. Women are particularly encouraged to apply. Sending CVs to IFAE implies consent to the institute's [legal warning](#).

Publication date: March 7th, 2022