

# Topological hybrid systems

The Phononic and Photonic Nanostructures Group is offering a post-doctoral position related to the EU-FET proactive project TOCHA on Topological matter in collaboration with the group of Quantum Photonics at the Niels Bohr Institute in Copenhagen and groups working on electronic topological insulators such as the Physics and Engineering of Nanodevices group at ICN2 and the group of Topological Insulators at Würzburg University.

The tasks associated with the position are mainly experimental research with a contribution to simulation work. The main goal is to gain new fundamental knowledge of the interactions and correlations between topological excitations (photons, phonons and electrons) in hybrid topological systems for efficient transfer and manipulation of classical and quantum information by a suitable combination of specific materials and structures that host more than one topological quasiparticle.

We look for a highly motivated researcher. The applicant will have a PhD in Physics and postgraduate level research experience in:

- Experimental nanophotonics and or nanophonics,
- Optical and electrical characterization
- Phonons in nanostructures.

The essential skills for the position include:

- Very good verbal and written communication skills
- Proficiency in English (spoken, written and reading comprehension)
- Ability to marshal arguments and to develop research concepts and or methods
- Good organisational skills
- Ability to work in an international team and on one's own.

We offer:

- A salary depend on qualifications and demonstrated experience.
- Support to the relocation issues
- Life Insurance
- Immediate incorporation.

How to apply:

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/365/postdoctoral-researcher-palantiri-physics-and-engineering-of-nanodevices> and

include the following:

1. A cover letter.
2. A full CV including contact details.
3. 2 Reference letters or referee contacts.

Equal opportunities:

ICN2 is an equal opportunity employer committed to diversity and inclusion of people with disabilities.

For any further information regarding the job position, please contact Francesc Alzina ([francesc.alzina@icn2.cat](mailto:francesc.alzina@icn2.cat)).