



## Postdoctoral fellowship at C2N, Paris-Saclay University

### Engineering and Thermodynamics of Correlated Quantum Systems

The [Quantum Physics in Circuits](#) lab (QPC, C2N, Paris-Saclay University) is offering a post-doctoral position of two years, renewable, in a stimulating, state-of-the-art environment. We are seeking for a dynamic young experimentalist with a solid research background in quantum physics. A PhD or previous post-doctoral experience in the field of mesoscopic physics would be an asset.

The project is to engineer correlated quantum states in tunable circuits, and to investigate their salient features through revealing thermodynamic observables. One primary objective is to perform an unequivocal observation of Majorana modes, through their fractional entropy. The project is supported by an ERC synergy grant (Quantropy, 07/2021-06/2027).

The research work will be conducted at the Center for Nanoscience and Nanotechnology in the Paris-Saclay University, together with a team including two PhD students, one research engineer and two physicists. It will benefit from the support of synergy partners in Canada, Israel and Switzerland, as well as from the additional theory support of a strong network of collaborators. The postdoctoral fellow will have at his disposal state-of-the-art measurement setups, and a direct access to the well-equipped C2N cleanroom. The QCP lab notably operates one cryofree dilution refrigerator of base electronic temperature 6mK including homemade cryogenic amplifiers for ultra-sensitive noise measurements, and a second sub-5mK cryofree dilution refrigerator is planned for delivery end of summer 2022.

The net salary is between 2.6k€/month and 3.3k€/month, depending on research experience. The starting date can be as soon as possible, ideally before fall 2022. Inquiries and applications (including a CV) should be sent to Frédéric PIERRE ([frederic.pierre@c2n.upsaclay.fr](mailto:frederic.pierre@c2n.upsaclay.fr)) and Anne ANTHORE ([anne.anthore@c2n.upsaclay.fr](mailto:anne.anthore@c2n.upsaclay.fr)). This offer will remain on display at <https://phynano.c2n.universite-paris-saclay.fr/en/opportunities/> until the position is filled.

Quantum Physics in Circuits lab: <https://qpc.c2n.universite-paris-saclay.fr>

Phynano group: <https://phynano.c2n.universite-paris-saclay.fr>

Center for Nanoscience and Nanotechnology: <https://www.c2n.universite-paris-saclay.fr>