



Post-Doctoral Position in Quantum Materials Research *Nanofabrication & Thermal Transport at the Cutting Edge*

Join Our Team

Would you like to help crack the secrets behind high-temperature superconductivity and explore exotic states of matter like quantum spin liquids? We are seeking a bold and curious postdoc to pioneer next-generation thermal transport experiments on the micro-nano scale at École Polytechnique, France.

Why This Position Is Exciting

High-temperature superconductivity and quantum spin liquids stand at the forefront of condensed matter physics. By joining our team at École Polytechnique, you will be at the heart of these discoveries, developing a next-generation thermal transport technique at the micro-nano scale to probe the most elusive phenomena in quantum materials.

Group

Pr. Gaël Grissonnanche's group is freshly installed on the École Polytechnique campus. Our lab is equipped with two new cryostats ranging from room temperature to millikelvin and can reach large magnetic fields. Our expertise lies in electric, thermoelectric, and thermal experiments for studying quantum materials in extreme conditions. <https://gaelgrissonnanche.com/>



Key Responsibilities

- **Engineer Novel Thermometers:** Design and nanofabricate innovative thin-film thermometers in cleanroom.
- **Perform High-Precision Measurements:** Implement fast, next-generation thermal techniques to investigate unconventional superconductors and spin liquids.
- **Collaborate and Innovate:** Work closely with an energetic research team, exchanging ideas that fuel discoveries in quantum materials.
- **Share Your Discoveries:** Publish and present your groundbreaking results in leading journals and international conferences.

Qualifications

- Ph.D. in Physics, Materials Science, or a related field.
- Hands-on experience with cleanroom nanofabrication.
- Familiarity with transport experiments (thermal, electrical) is a plus.
- Strong analytical and programming skills (Python preferred).
- Excellent written and verbal communication in English.
- **Passion for exploring the frontiers of condensed matter physics.**



What We Offer

- **Pioneering Research Environment:** Leverage world-class facilities at Laboratoire des Solides Irradiés, including a specialized electron irradiator for controlled materials disordering.
- **Professional Growth:** Enhance your research profile while developing expertise in nanofabrication, advanced thermal techniques, and quantum materials.
- **Global Collaboration & Exposure:** Collaborate with national and international partners, building a robust network for your career.
- **Life in Paris & Beyond:** Work on a vibrant campus just 20 km from the heart of Paris, enjoying the city's cultural and scientific dynamism.

Application & Additional Information

- **Duration:** minimum 24 Months
- **Start Date:** as soon as possible
- **Supervisor:** Prof. Gaël Grissonnanche (gael.grissonnanche@polytechnique.edu)

Ready to Explore the Frontiers of Quantum Matter?

Send your CV, publication list, and a one-page cover letter detailing your research experience and motivation for joining this project. Please include contact information for three references.

École Polytechnique is an equal opportunity employer committed to diversity and inclusion in our community. We welcome applications from candidates of all backgrounds.