

# **Postdoctoral Fellowships**

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#### **CALL FOR APPLICATIONS 2025 – FELLOWS**

**Supervisor** Nicolas Treps

Supervisor page https://www.lkb.upmc.fr/quantumoptics/project/nicolastreps/

Host Institution Sorbonne Université

https://www.sorbonne-universite.fr/en

Research Lab Laboratoire Kastler Brossel

https://www.lkb.fr/en/

Research Team Quantum Optics Group

https://www.lkb.upmc.fr/quantumoptics/

## **Project Title**

Multimode Non-Gaussian states of Optical Frequency Combs

## **Project Description**

Our group is working on the experimental realization of multimode non-classical light for quantum information applications. The aim of this project is to address the scalability of non-Gaussian state generation from its fundamental aspects to practical applications in quantum computing, metrology and communication. This includes developing methods to certify the properties of these states in a multimode scenario.

## Keywords

quantum optics, quantum information, non-gaussian states

## **Description of the Host Research Lab**

Founded in 1951 by Alfred Kastler and Jean Brossel as the Laboratoire de Spectroscopie Hertzienne de l'ENS, the Kastler Brossel Laboratory has established itself as a major player in the field of quantum physics research, as evidenced by its three Nobel Prizes. Today, it has over 200 members spread across three Parisian sites and 11 research teams covering a wide range of topics from fundamental tests of quantum physics to their applications.

To submit your application, please send an email with the required documents to msca-pf@sorbonne-universite.fr