

1. Position identification

Title of post : Postdoctoral position in theoretical physics in the framework of the PEPR project « TORNADO »

Type of contract : CDD Postdoctoral position

Category (A,B or C) : A

Contract/project period : 2 years **Expected date of employment :** 06/01/2025

Proportion of work : 100 %

Workplace : Université de Strasbourg, Institut de Science et d'Ingénierie Supramoléculaires (I.S.I.S), Centre Européen de Sciences Quantiques (CESQ)

Desired level of education : PhD

Experience required : 0-4 years after PhD

Contact(s) for information on the position (identity, position, e-mail address, telephone) : David Hagenmüller (dhagenmuller@unistra.fr), Rémi Avriller (remi.avriller@u-bordeaux.fr)

Date of publication : 2nd december 2024

Closing date for the receipt of applications : 30th december 2024

2. Research project or operation

Open system approach to strong coupling in chiral cavities

3. Activities

➤ Description of the research activities :

The goal of the project is theoretically propose and investigate cavity-induced modifications of chiroptical and topological properties of materials embedded inside open Fabry-Perot chiral cavities or chiral plasmonic structures specifically designed to host chiral modes.

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4. Skills

➤ Qualifications/knowledge :

- PhD in theoretical physics
- Solid background in condensed-matter physics/quantum optics/mesoscopic physics

➤ **Operational skills/expertise :**

Analytical calculations, programming languages (Python, Matlab, C++)

➤ **Personal qualities :** Communication and presentation skills.

5. Environment and context of work

➤ **Presentation of the laboratory/unity :**

Centre Européen de Sciences Quantiques

Staff : 40

Staff to supervise : 0

Location : Campus Cronenbourg, Université de Strasbourg

➤ **Hierarchical relationship :**

David Hagenmuller, Chargé de recherche CNRS

Rémi Avriller, Chargé de recherche CNRS

➤ **Special conditions of practice (notice attached):**

Postdoctoral position

To apply, please send your CV, cover letter and diploma to :

**David HAGENMULLER : dhagenmuller@unistra.fr – Rémi AVRILLER :
remi.avriller@u-bordeaux.fr**