

# **Postdoctoral Fellowships**

Marie Skłodowska-Curie Actions Developing talents, advancing research



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

Supervisor Hua-Sheng Shao

Supervisor page <a href="https://www.lpthe.jussieu.fr/~hshao/">https://www.lpthe.jussieu.fr/~hshao/</a>

Host Institution Centre National de la Recherche Scientifique (CNRS)

https://www.cnrs.fr/en

**Research Lab** Laboratory of Theoretical and High Energy Physics

https://www.lpthe.jussieu.fr/static/en/index.html

Research Team Particle Physics and Cosmology

https://www.lpthe.jussieu.fr/static/en/articles/article11.html

# **Project Title**

Pushing the boundaries of particle and nuclear physics at small transverse momentum

### **Project Description**

With facilities like the LHC and EIC, understanding the small transverse momentum physics with high precision is of outmost importance, since it encodes key information of the multidimensional internal structure and spin of hadrons, and could unveil BSM signals. Our project aims to refine the description of the production of heavy particles like quarkonia, top quark, electroweak, and Higgs bosons in this critical kinematic region, employing both qT resummation and TMD factorisation approaches.

#### **Keywords**

precision QCD, heavy particle, internal structure of nucleons and nuclei

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

The scientific activity at LPTHE is centered on the unifying principle of Quantum Field Theory, both in its most theoretical aspects and in its applications.