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Marie Skłodowska-Curie Actions

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Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Laurent Coolen
Supervisor page	https://www.researchgate.net/profile/Laurent-Coolen
Host Institution	Sorbonne Université https://www.sorbonne-universite.fr/en
Research Lab	Institute of NanoSciences of Paris https://w3.insp.upmc.fr/en/insp-en/
Research Team	Nanophotonics and Quantum Optics https://w3.insp.upmc.fr/en/research/research-teams/nanophotonics-and-quantum-optics/

Project Title

Collective fluorescence of semiconductor quantum light nano-emitters

Project Description

This research focuses on collective effects within large ensembles of quantum nano-emitters (self-assembled chains of CdSe nanoplatelets : Jana et al., Science Advances 2017) which have already demonstrated strong FRET (Förster) energy transfer (Liu et al., Nano Lett. 20, 3465) causing collective blinking (Ouzit et al., ACS Phot. 10, 421) and antibunching. We wish to develop projects on superfluorescence (superradiance), coupling to nanocavities and plasmonic antennas etc.

Keywords

fluorescent nano-emitters, nanophotonics, single molecule microscopy

Description of the Host Research Lab

The Institute of NanoSciences of Paris (INSP) brings together teams from four condensed matter physics laboratories. Its scientific objectives are at the heart of fundamental research in nanosciences, but it also has a wide range of applications: optoelectronics and telecommunications, earth sciences and the environment, catalysis and medical diagnostics.

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