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Marie Skłodowska-Curie Actions

*Developing talents,
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Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Rémi Cornaggia
Supervisor page	http://www.dalembert.upmc.fr/home/cornaggia/
Host Institution	Sorbonne Université https://www.sorbonne-universite.fr/en
Research Lab	Institut Jean Le Rond d'Alembert http://www.dalembert.upmc.fr/ijlrda/
Research Team	Modélisation et Ingénierie des Solides et des Structures http://www.dalembert.upmc.fr/mises/

Project Title

Time-modulated phononic crystals

Project Description

This project focuses on the modeling of time-modulated phononic crystals, made of vibrating or rotating rods with elliptic cross-sections. Keeping in mind upcoming experimental realizations, it aims at developing innovative theoretical and numerical tools to describe the unusual wave phenomena due to the time modulation. Additionally to band-gaps due to the space periodicity, we expect to exhibit strong effects such as harmonic generation and reciprocity breaking.

Keywords

acoustic waves, metamaterials, theoretical and numerical modeling

Description of the Host Research Lab

The Institut Jean Le Rond d'Alembert (d'Alembert) is a research laboratory dedicated to expanding the field of knowledge in all areas of Mechanics, Acoustics and Energy.

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