

Postdoctoral Fellowships

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CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor Lionel Guidi

Supervisor page https://lov.imev-mer.fr/web/member/lionel-guidi/

Host Institution Sorbonne Université

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

Research Lab Laboratoire d'Océanographie de Villefranche

https://lov.imev-mer.fr/web/home/

Research Team Computational Plankton Ecology

https://lov.imev-mer.fr/web/team-complex/

Project Title

From individual particle properties to carbon flux through a modeling approach

Project Description

Biogeochemical models use crude representations of physical and biogeochemical mechanisms driving particle fate in the mesopelagic zone. We propose to develop a more detailed, mechanistic model to describe particle interactions, sinking, and degradation through the mesopelagic zone. This will help us understand important processes such as organism-particle interactions leading to aggregation and/or fragmentation. The model will be calibrated based on APERO and EXPORTS data

Keywords

biogeochemistry, biological carbon pump, particles

Description of the Host Research Lab

The four main missions of LOV are research (expanding knowledge), observation, teaching and outreach. They contribute to the study of the world's oceans and, in particular the response and contribution to global change, with the aim of predicting the future evolution of ecosystem services. These studies cover offshore and coastal areas, exchanges at the air/sea/land/ice pack interfaces, and, in the sea, the water column. The variables studied belong to the disciplines of biology, chemistry, biogeochemistry and physics (optics and hydrodynamics).