Postdoctoral Research Associate

Fixed Term 2 Years

Salary Range (ANR funding): 2000-2500 € monthly (free of charge), depending on Seniority

We seek a Physical Oceanographer to join a multidisciplinary team at MIO (Mediterranean Institute of Oceanography) on the OUTPACE project that studies the impact of the coupled physical-biogeochemical submesoscale processes on the carbon export in South Western Pacific Ocean.

About the scientific project:

This work is part of the OUTPACE (Oligotrophy from Ultra-oligoTrophy PACific Experiment, PIs: T.Moutin and S.Bonnet, https://outpace.mio.univ-amu.fr) project to give a zonal description of the biogeochemical functioning and biological diversity of the South West Pacific toward a gradient of macro- and micro-nutrients availability, and to produce a detailed study of the biological production and its subsequent fate in 3 contrasting sites, with a specific emphasis on the production sustained by nitrogen fixation.

The OUTPACE project will consider a variety of scales, from single-cell processes to the whole SW Pacific ocean. In order to examine the biogeochemical role of diazotrophs, OUTPACE will describe the functioning of three distinct ecosystem from a multidisciplinary point of view, adopting an innovative approach combining remote sensing data, Lagrangian drifters, in situ experiments and numerical modelling.

The experimental part is based on the realization of a 45-days oceanographic cruise onboard the R/V L'Atalante in the SW Pacific in February-March 2015 along a zonal transect at 19° S. In particular, process study in contrasting oligotrophic and N2 fixation conditions will be performed following a Lagrangian approach for a 3D characterization of the upper water column. High frequency acquisition of physical, optical, biogeochemical and biological variables will be assessed in order to quantify primary / secondary production and their fate as well as mineralization and export of organic matter.

The OUTPACE project, funded by the French National Research Agency ANR, LEFE program of CNRS, IRD, GOPS and CNES, has been endorsed by the international IMBER (Integrated Marine Biogeochemistry and Ecosystems Research) program.
The project involves about 50 scientists from several French and international institutions.

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About You:

The postdoctoral fellow (you) will help in the implementation of the software tools for the Lagrangian adaptive strategy that will be used for the in situ biogeochemical process studies. You will be in charge of the treatment and analysis of the data that will be obtained during the high frequency and high resolution mappings performed in the areas identified for the Lagrangian stations. You will interpret the measurements in the context of the large-scale physical and biogeochemical environment observed by satellites and simulated by numerical models.

You should have a PhD in Physical Oceanography with a background in in-situ observation and/or remote sensing and excellent skills in computer programming.
You will be expected to publish in the relevant peer reviewed literature.

About Us:

Mediterranean Institute of Oceanography (MIO, http://www.mio.univ-amu.fr) is part of Aix-Marseille University (AMU, http://www.univ-amu.fr/).
With roots dating back to 1409, the AMU is the largest university in France and the French-speaking world, with about 70,000 students. AMU has the largest financial endowment of any academic institution in France, standing at €650 million. AMU has produced many notable alumni, as 4 Nobel Laureates.
The MIO, within the AMU, is one of the oldest, largest, and most important centres for oceanographic research and training in France. Currently, MIO staff numbers approximately 250, including about 90 Faculty, and some 50 graduate students. Oceanographic research at MIO covers many aspects of the field, including physical, biological, and chemical oceanography. The MIO promotes prolific international collaborations with European and non-European countries, through involvement in programs such as SESAME, EUROCEANS, and many international research projects/oceanographic successful expeditions leaded by scientists from the MIO. The MIO is a member of the European network of excellence for Ocean Ecosystems Analysis, and stands out in integrating marine ecosystems, foodweb, climate change and marine resources research.

How to apply:

Application (CV and letter of motivation) and/or informal enquiries should be directed to Andrea Doglioli (andrea.doglioli@univ-amu.fr), Anne Petrenko (anne.petrenko@univ-amu.fr) and Thierry Moutin (thierry.moutin@univ-amu.fr)

Closing date: the search will remain *open* until the position is filled.