

Research Assistant in Statistical Approaches to Ocean Carbon Cycle Monitoring

Institut Pierre Simon Laplace
Laboratoire des Sciences du Climat et de l'Environnement (IPSL/LSCE)
Gif-sur-Yvette, France

Applications are invited for a Research Assistant in Statistical Approaches to Ocean Carbon Cycle Monitoring. The position is linked to the “Multi Observations Thematic Assembly Centre” (MOB TAC) funded under the umbrella of the “Copernicus Marine Environment Monitoring Service (CMEMS)”. The main focus of the position lies on the maintenance and further development of a neural network based approach to mapping of surface ocean pCO₂, pH and air-sea exchange fluxes of CO₂. This approach will be applied to the reconstruction of pCO₂ fields over the past decades, as well as to the operational release of carbon system estimates. The postholder is expected to improve the existing model by (1) exploring the value of additional or alternative data sets derived from high-resolution operational model output, remote sensing or situ measurements, (2) assessing sources of errors and their co-variances, (3) evaluating uncertainties in reconstructed fields and their relevance to the monitoring of ocean state, as well as the detection and attribution of trends. Applicants should hold a doctorate with good background in applied mathematics and statistical modelling. Knowledge of physical oceanography and/or marine biogeochemistry would be a strong asset, but is not compulsory. Candidates are expected to demonstrate computing skills and to be familiar with LINUX based environments.

The candidate will be expected to present results at national and international meetings. The position is for an initial period of 24 months, with the possibility for extension by 12 months pending on salary and experience. The position is based at Laboratoire des Sciences du Climat et de l'Environnement (LSCE, <http://www.lsce.ipsl.fr/>). LSCE is part of the Institut Pierre Simon Laplace (IPSL, <http://www.ipsl.fr/en/>). Their research mission is to contribute to a better understanding of the interactions between human activities in the Earth system as well as the environment and climate dynamics at different time scales. The research will be carried out in close collaboration with S. Guinehut (CLS, Toulouse).

Applicants are invited to submit a brief statement of research interests, CV and details of two referees to M. Gehlen (marion.gehlen@lsce.ipsl.fr) and F. Chevallier (frederic.chevallier@lsce.ipsl.fr).