

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 post-doctoral/Research Assistant position in Statistical Approaches to Ocean Carbon Cycle Monitoring. The position is funded through the Horizon Europe project Ocean-ICU (Improving Carbon Understanding, <https://ocean-icu.eu>). The successful candidate will join an active and internationally well connected local research group pushing the frontiers of global C cycle research through a combination of numerical modeling, data assimilation and machine learning approaches. The main focus of the position lies on the identification of an optimal observational network for enabling the reconstruction of surface ocean fugacity and sea-air CO₂ fluxes. The postholder will build on existing statistical models to develop a novel approach for deriving surface ocean carbon system estimates over the continental shelves of the Atlantic Ocean. She/He will combine output from a high-resolution numerical model, remote sensing observations, in situ measurements and statistical models. She/He will design, set-up, execute and analyze observation system simulation experiments. The improved statistical model will ultimately be applied to the reconstruction of sea-air CO₂ fluxes over the past decades, as well as to the operational release of carbon system estimates.

Applicants should hold a doctorate in physical oceanography, marine biogeochemistry or applied mathematics (or equivalent) and have a background in statistical modeling. 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 a period of 3 years pending on salary and experience. It 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.

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).