POSTDOC
Ocean circulation reanalysis in the Mediterranean Sea

Description:
In the context of French collaborations funded by SiMed and MORCE-MED on the study of the Mediterranean Sea circulation, a model called “MED12” is being developed. This model is based on the standard ORCA grid with a 1/12° horizontal resolution and the numerical code NEMO mainly supported by LOCEAN, and used at Mercator for operational oceanography. The position involves:
- to create a database from satellite and in situ available products.
- to compare the MED12 results and the previous database at mesoscale through metrics and diagnostics.
- to improve the “building” of background error covariances from a free oceanic simulation.
- to couple MED12 and the Mercator assimilation scheme. The goal is to adapt and to improve the existing assimilation scheme for Mediterranean specificities: generation of multi-time correction (multi-time analyses) at each assimilation cycle in order to better control the analyzed trajectory in time and to improve the backward and the forward propagation of the information from the observations, modification of the IAU function, assimilation of new observations (tides gauge, drifters and profilers velocity, high resolution SST, ...).
- to produce and validate a reanalysis.
- to write scientific papers.

Start: as soon as possible

Address: ENSTA-ParisTech, Chemin de la Hunière 91720 Palaiseau Cedex.

Fixed term contract: 2 years (1 year, renewable 1 year) and 1 year more if funded by other submitted projects.

Grade: PhD in oceanography with an experience with Ocean general Circulation Model (OGCM), computer programming (Unix, Fortran, IDL/Matlab) and English. A first experiment in data assimilation or NEMO code would represent a considerable additional skill.

Collaborations: Mercator, Coriolis, IPSL, CNRM, LOPB.

Salary: ~2000 euros net/month.

Contact: send your CV including email addresses of 2 referees to Karine.Beranger@ensta.fr