

**POSITION OPENING: Postdoctoral fellow in Operational Ocean Modeling and Data Assimilation at IMEDEA/TMOOS; (CSIC - JAE DOC, 2011)**

**About IMEDEA/TMOOS:**The Department of Marine Technologies, Operational Oceanography and Sustainability (TMOOS) develop its activities within the research line of Physics and Technology of the Coastal Ocean System: Observation, Prediction and Interactions. An independent international panel, evaluated the activities and 2010-2013 Strategic Plan from the Dept., giving the highest scores in all four categories analyzed (it can be found in pdf format at: <http://imedea.uib-csic.es/tmoos>) and in accordance a contract at postdoctoral level is offered from CSIC – JAE Doc, December 1<sup>st</sup> 2011 call.

Our objective is to study the physical mechanisms that might explain the dynamics of the coastal ocean system and its interactions with the nearshore and the open ocean in a context of global change to which the coastal ocean is particularly vulnerable. The variability of scales involved, from meters to thousands of kilometers and from seconds to years, and their nonlinear interactions, makes the understanding of these mechanisms a real internationally established challenge. We address this challenge from a physical and mathematical background and combining theoretical, observational (*in situ* and remote) and numerical modeling approaches, in particular (but not only) in the Mediterranean Sea, an ideal laboratory small scale ocean to understand physical processes, to test new ideas and to support different maritime operations.

We look for a well-trained and strongly motivated postdoctoral fellow, with experience in ocean modeling and data assimilation to collaborate in the upgrade of the existing operational system at SOCIB. SOCIB ([www.socib.es](http://www.socib.es)) is a new international Coastal Ocean Observing and Forecasting System that originated from IMEDEA/TMOOS, a multi-platform facility of facilities, based in the Balearic Islands that respond to scientific, technological and strategic society priorities related to the role of the oceans in climate change. The successful candidate will collaborate with researchers at IMEDEA and SOCIB and, using the ocean model ROMS, will be responsible for development of operational data assimilation and operational validation of the forecasting system. Candidates should be motivated to drive new developments in data assimilation (HF Radar, buoys, gliders, ARGO and drifters, satellite, etc.) for operational applications. A strong capacity for collaboration with assimilation experts and team-work is required.

**Main Duties:**

Overall duties include the implementation, operation and evaluation of existing operational system, data assimilation and model codes.

Development of assimilation scheme, test and sensitive cases studies (OSSEs, glider assimilation, processes studies, design of new campaign)

**Qualifications:**

The candidates should have a Ph.D. in Oceanography, Atmospheric Sciences or related disciplines and experience in numerical modeling. Knowledge of the ROMS model will be considered a plus.

Demonstrated skill/proficiency in the following areas is desirable: operational data assimilation, running complex model codes on high-performance computers, advanced knowledge of numerical modelling, skill in analyzing numerical model output and verification statistics, skill in scientific programming (e.g., Fortran and/or C) and scripting languages such as Perl and/or Python, as well as some skills in graphical display programs such as NCL, Matlab, and/or IDL. Experience processing very large datasets in a variety of formats (e.g., GRIB, netCDF3/4 and HDF4/5) is important.

**Remuneration:** 27.540,24 Euros

**Starting Date:** around summer 2012, as indicated in the CSIC call.

**Length of the contract:** 3 years

**Applications:** now

Review of applications by TMOOS/IMEDEA will begin immediately, and will proceed until 30<sup>th</sup> December 2011. Applicants should send curriculum vitae, one-page statement of research interests and one published academic article most indicative of his work to [Irenault@imedea.uib-csic.es](mailto:Irenault@imedea.uib-csic.es). A shortlist of selected candidate will be contacted before the 06<sup>th</sup> January 2012. Successful candidate will have to prepare a research-working plan (5 pages, including Summary, Introduction, Objectives, Methodology, Work Plan, Chronogram, References) to be iterated and submitted to CSIC on January 12, 2012.

**Closing Date:**30/12/2011

**More information at:**

- CSIC – JAE Doc, December 1<sup>st</sup> 2011 call: <https://sede.csic.gob.es/servicios/formacion-y-empleo/convocatorias-personal/-/convocatoria/34736>
- and: <http://www.imedea.uib.es/departamento.php?d=106&lang=en>