

Call for a PostDoc in numerical modelling for the SHAREMED project

The Mediterranean Institute of Oceanography (M.I.O.), marine component of Aix-Marseille University (AMU) is partner in SHAREMED, a strategic project funded by the Interreg MED Programme under the framework of PANORAMED. The ultimate aim of this project is to increase the capability of the Mediterranean regional, sub-regional and local authorities and of the research community to jointly assess and address hazards related to pollution and environmental threats in the Mediterranean Sea.

M.I.O. is seeking a candidate with solid expertise in numerical modelling of marine systems previously engaged in similar activities, supported by relevant publications or professional experience in the domain. The expected skills comprise a solid command of Fortran90 programming, high proficiency in working with High Performance Computing (HPC) platforms, Linux operating systems, and running of operational codes, as well as a good expertise in software processing tools like Python and Matlab.

Among the activities of the SHAREMED project, WP3 and 4 propose the development of a relocatable operational system for short-term forecasts of oceanographic conditions (both hydrodynamic and biogeochemical) based on the coupled MITgcm-BFM model developed by OGS. The selected candidate will be in charge of the transfer of this tool and its implementation for the North Western Mediterranean Sea study site (WP5). The portability of the system will be checked and a further testing/validation process in pre-operational configuration will be carried out considering both the physical and biogeochemical properties of the specific marine environment. Local and site-specific datasets will be integrated in the model for either forcing it or validating its results.

Model implementation will be conducted in close collaboration with the OGS modelling group. The expert will be working at M.I.O. in Marseille under the supervision of Dr. Christel Pinazo scientific responsible of HPC platform and Dr. Christian Grenz French ShareMED PI.

The candidate is expected to work and follow the implementation of the activity in all its phases, namely:

Phase 1: download model forcing conditions, open boundary conditions and bathymetry;

Phase 2: implementation of the model in NWM and initial fine tuning;

Phase 3: validation: comparison with *in situ* observations and other realistic computing results

Progress reports are expected along the work and at the end of the work a detailed report is expected which describes the system in details.

Start date beginning February-March 2021, duration 14 months, salary depending on experience acquired.

To apply send an email to Dr. Christel Pinazo (christel.pinazo@univ-amu.fr) and Christian Grenz (christian.grenz@mio.osupytheas.fr)

Deadline: 15 January 2021