



The Max Planck Institute for Meteorology (MPI-M) is an internationally renowned center for climate research located in Hamburg, Germany. The MPI-M provides a vibrant international and interdisciplinary environment for conducting scientific research as well as access to state-of-the-art scientific facilities. The institute is located in the heart of one of Europe's most liveable cities, and is embedded in an environment known worldwide for its breadth of climate research.

In the Cluster of Excellence, CLICCS, subproject A6 (Earth System Variability and Predictability in a Changing Climate), the MPI-M investigates the interactions between processes on different scales and the role of these interactions for climate and climate sensitivity. In the Research Group *Ocean Biogeochemistry* in the Department *The Ocean in the Earth System* we are looking for a

Postdoctoral Scientist (W077)

The successful candidate will be part of a team developing a higher-resolution version of the new Earth system model ICON-ESM. The focus of this project is on the representation of the ocean carbon sink within the model HAMOCC, the ocean biogeochemistry component of ICON-ESM. In order to properly capture the ocean carbon uptake and storage in the eddy-resolving model, some key biogeochemical processes will be evaluated and adjusted. This includes, but not limited to the connection between trophic levels, nutrients co-limitation, sinking of particulate organic carbon and shell material, remineralization, and air-sea exchange. The outcomes of this work will contribute to high-resolution simulations with ICON-ESM.

Responsibilities

- Investigation of the implications of interactions of small-scale processes (ocean eddies and atmospheric convective events) with larger scales for the ocean carbon sink and ocean biogeochemical cycles.
- Contribute to the development of HAMOCC within the new coupled MPI-M Earth System Model (ICON-ESM) in a higher-resolved version, and designing numerical experiments with a focus on quantifying the effects of small-scale processes on the carbon cycle.
- Supporting scientific cooperation within CLICCS project partners closely linked to the themes of the subproject A6.
- Disseminating the results through peer-reviewed publications and presentations at conferences.

Requirements:

- A PhD in Geosciences, Oceanography, Environmental Sciences, or a related field.
- Experience in performing and analyzing experiments with a comprehensive Earth system model or ocean biogeochemical model.
- Experience with high-performance computing environments and complex scientific codes is required.
- Motivation and ability to participate in model development in an interdisciplinary and international environment.
- Excellent communication skills and publication record.

Employment conditions

- The position is offered for 2 years starting as soon as possible.

- Payment will be in accordance with German public service positions (TVoED E14), including extensive social security plans. The conditions of employment, including upgrades and duration, follow the rules of the Max Planck Society for the Advancement of Sciences and those of the German civil service.
- The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds.
- Handicapped persons with comparable qualifications receive preferential status.

Selection criteria

Candidates will be evaluated based on their qualifications and ability to fulfill the responsibilities as outlined for this project.

Deadline for applying

All applications received prior to **September 30, 2020**, will be given full consideration. The search will be continued until the position is filled.

We are looking forward to receiving your application

including the following documents:

- 1) a cover letter,
- 2) a detailed curriculum vitae,
- 3) copies of certificates, and
- 4) the names, addresses, and telephone numbers of two referees

Please submit the application to our online application system:

https://s-lotus.gwdg.de/mpg/mhmt/perso/mpim_w077.nsf/application

For further information, please contact Tatiana Ilyina (tatiana.ilyina(at)mpimet.mpg.de

Do not forward your application to this email address; the applications need to be submitted through the online application system (see link above).



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