



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 livable cities, and embedded in an environment known worldwide for its breadth of climate research.

The [EU Horizon 2020 Project ESM2025 \(GA 101003536\)](#) aims to develop the next generation of Earth System Models (ESMs) by integration of new components in the ESMs, the representation of interactions and couplings between the components within the ESMs, and the improvement of key climate processes through the use of machine learning/artificial intelligence or the use of constraints derived from available observations. The Research Group *Ocean Biogeochemistry* in the Department OES (*The Ocean in the Earth System*) is one of the major partners in ESM2025, we are looking for a

Postdoctoral Scientist (W098 | all genders)

fixed-term position for 36 months

The successful candidate will be part of a team developing the new Earth system model ICON-ESM. The focus of the work is on improving biogeochemical processes determining the ocean carbon sink within the model HAMOCC, the ocean biogeochemistry component of ICON-ESM. This includes, but not limited to the representation of the marine nitrogen cycle, nutrients co-limitation, sinking of particulate organic carbon and shell material, remineralization, and air-sea exchange, as well as effects of vertical ocean mixing and transport processes.

Your tasks

- Contribute to the development of HAMOCC within the new-coupled MPI-M Earth System Model (ICON-ESM) and designing numerical experiments with a focus on improving biogeochemical processes and the carbon cycle.
- Supporting scientific cooperation within ESM2025 project partners.
- Disseminating the results through peer-reviewed publications and presentations at conferences.

Our 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.

What we offer

- The position is offered for 36 months, starting as soon as possible.
- Payment will be in accordance with German public service positions (TVöE 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.

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

Your application

All applications received prior to **November 30, 2021**, will be given full consideration. The search will be continued until the position is filled.

We are looking forward to receiving your online 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_w098.nsf/application

For further information, please contact Dr. Tatiana Ilyina at [tatiana.ilyina\(at\)mpimet.mpg.de](mailto:tatiana.ilyina(at)mpimet.mpg.de). Please do not forward your application to this email address. All applications must be submitted through the [online application system](#).

