GEOMAR
Helmholtz-Zentrum für Ozeanforschung Kiel

GEOMAR Helmholtz Centre for Ocean Research Kiel is a foundation under public law jointly financed by the Federal Republic of Germany (90%) and the State of Schleswig-Holstein (10%). It is one of the internationally leading institutions in the field of marine research.

Through our research and our commitment to the transfer of knowledge and technology, we contribute significantly to the preservation of the function and protection of the ocean for future generations. Carbon dioxide removal (CDR) is now considered in an unprecedented global scale in most, if not all, ambitious mitigation scenarios. Yet, our understanding of efficacy, additionality and side-effects remains limited, not least because representation of CDR options in Earth system models of various complexity remains a challenge. The CDR model intercomparison project (CDRMIP) aims to make a contribution to our knowledge of the Earth system response to novel interferences into the climate system, investigating efficacy, additionality and side-effects of explicit CDR representations in portfolio scenarios.

The research group Earth system dynamics in the research unit Marine Meteorology of the research division Ocean and Climate Dynamics is offering a position for a

Scientist (m/f/d)
to build a repository of Carbon Dioxide Removal (CDR) model implementations and contribute to CDRMIP analysis

starting as soon as possible.

Job Description

In the first part of the project, the scientist will be tasked with building a comprehensive, sharable repository of example CDR model implementations. The repository of CDR implementations will encompass terrestrial and marine methods. For this, we will use the outcomes of ongoing projects that we are involved in, notably RESCUE and CDRmare and CDRterra, but also collaborate with international CDR experts in the context of CDRMIP. In the second part of the project, the scientist will be analysing the multi-model ensemble simulations of CDRMIP to identify robustness of model responses and identify poorly constrained processes to inform future model development as well as scenario designs. The new CDRMIP model simulation, will allow for the analysis of portfolio implementations of CDR. The simulations will be a combination of idealised overshoot scenarios and realistic but single CDR implementation scenarios. We will complement these efforts with additional simulations with an Earth system model to understand each method's individual efficacy and side effects, and their respective additionalities.

Qualification

Required:

- M.Sc. in natural sciences or data science
- Experience in Earth system model development and code documentation
- Excellent English language skills (oral and written)

Desired qualifications:

- PhD in natural sciences or data science
- Experience concerning carbon dioxide removal modelling
- Well-developed networking and communication skills
- Experience in working with an interdisciplinary team or integrated assessment scenarios

- Previous experience with online databases
- Suitability to the existing research group

At a workplace, directly on the Kiel Fjord with many leisure and recreational opportunities, we offer you:

- Good conditions for work-life balance: We offer, among other things, the possibility of mobile working and individual working time arrangements, vacation courses for the children of our employees, and good support in finding a place in a daycare center at the Kiel site
- Support services for professional and personal life situations
- An exciting work environment with the opportunity to provide important impetus for the development of sustainable solutions
- Exciting topics in an international environment
- Work in the field of marine and climate research, a forward-looking area with social significance
- 30 vacation days + additional time off at Christmas Eve and New Year's Eve
- Company pension plan and capital-forming benefits

The position is available for a funding period until March 31st 2027. The salary depends on qualification and could be up to the class 13 TVöD-Bund of the German tariff for public employees. This is a full-time position. The position can be split. The fixed-term contract shall comply with Section 2 Paragraph 1 of The Act of Academic Fixed-Term Contract (German WissZeitVG).

GEOMAR Helmholtz Centre for Ocean Research Kiel seeks to increase the proportion of female scientists and explicitly encourages qualified female academics to apply. GEOMAR is an equal opportunity employer and encourages scientists with disabilities to apply. Qualified disabled applicants will receive preference in the application process.

Please send your application (including motivation letter, CV, certificates and 2 reference contacts) for this post **not later than May 27th 2025** under the following link:

Online application

As soon as the selection procedure has finished, all your application data will be removed according to data protection regulation.

For further information regarding the position and research unit please contact Dr. Nadine Mengis (nmengis@geomar.de).

We will answer all your questions if you send us an e-mail to bewerbung@geomar.de. In doing so, please refer to the keyword “CDRMIP”.

For further information on GEOMAR Helmholtz Centre for Ocean Research Kiel or the Helmholtz Association, please visit www.geomar.de or www.helmholtz.de.

GEOMAR is committed to an objective and non-discriminatory personnel selection. Our job advertisements address all people. We expressly renounce the submission of application photos.

The TOTAL E-QUALITY award is presented to GEOMAR for efforts in terms of human resource management aimed at providing equal opportunity.