

Job announcement (Phy-09/2021)

The Department of Physical Oceanography and Instrumentation of the Leibniz Institute for Baltic Sea Research Warnemünde (IOW) is offering a full-time (40 hrs/week)

Research Scientist (*gn) (PostDoc)

position at the earliest starting on March 1st, 2022. Remuneration is paid in accordance with the TV-L salary scale at level EG 13. Part-time work is possible with at least 30 hours/week or by job sharing of 2 applicants. The employment is temporary until July 31st, 2024.

The IOW is an independent institute of the Leibniz Association, engaged in system analysis of coastal and marginal seas, with special focus on the Baltic Sea. The scientists of the four departments (Physical Oceanography and Instrumentation, Marine Chemistry, Biological Oceanography and Marine Geology) cooperate within the framework of a joint research program.

Tasks

In the framework of the interdisciplinary research consortium RETAKE (<https://www.cdrmare.de/retake/>), we assess the question whether the CO₂ uptake of the oceans can be increased by an enhancement of the bottom water alkalinity. In this postdoc position, the approach shall be investigated using a physical-biogeochemical model of the Baltic Sea. The tasks include:

- physical simulations with passive tracers (to estimate transport time scales between bottom and surface water),
- biogeochemical adjustments in an existing ecosystem model (calibration to ensure an optimal representation of carbonate system parameters in the areas of interest, implementing alkalinity-increasing processes in the model),
- biogeochemical simulations on the effects of alkalinity enhancement on the carbon cycle and possible interactions specifically with the marine phosphate cycle,
- cooperation inside the project and the research mission, and publication of the results in scientific journals.

The collaborative research consortium RETAKE is part of the research mission “CDRmare” of the German Alliance for Marine Research (DAM) and funded by the BMBF, which investigates, how and to what extent the ocean can play an essential role in the uptake and storage of atmospheric CO₂. The deposition of alkalinity-enhancing minerals in the ocean is one possible way of counteracting anthropogenically induced climate change in this way. Within the consortium, a close collaboration is expected within an interdisciplinary team, which broadly investigates the topic from dissolution kinetics to economic and social science questions. At the IOW, collaboration is possible with other ecosystem modellers and with the working group “Trace Gas Biogeochemistry”, which will employ another postdoc (chemist) in the frame of this project.

Qualification

We are seeking a motivated modeller (*gn) with a PhD in the area of oceanography, chemistry, physics, marine ecology or a related area of natural sciences.

Required qualifications for the application are:

- PhD in one of the scientific areas listed above
- Experience in numerical ocean modelling or ideally ecosystem modelling
- Experience in writing scientific publications
- At least basic programming skills
- English language skills on a level which enables smooth communication with the international project team and writing of scientific publications
- Interest in collaborating in an interdisciplinary project team

Desired qualifications are:

- Knowledge of the marine carbon cycle
- Successful publication record, relative to the “scientific age”
- Experience in collaborating in interdisciplinary projects
- Experience in working in supercomputing environments

Applicants are kindly asked to send their complete applications (cover letter, CV, copies of certificates, description of relevant activities and experience, full publication list, references) **as a single PDF file** quoting the

Code: **Phy-09/2021**

Until **09 Jan 2022** to:

bewerbung.physik@io-warnemuende.de



or by regular mail to:

Leibniz Institute for Baltic Sea Research Warnemünde
Dept. Human Resources
Seestraße 15
D-18119 Rostock
Germany

Applications from disabled persons with same professional and personal qualification will be treated preferentially. Please indicate a handicap in the cover letter and enclose the relevant certificate.

This job advertisement is aimed at all persons regardless of their gender. The IOW promotes equal opportunities and has been awarded the Total Equality Certificate for the third time since 2013 in 2019. An overview about our measures for ensuring equal opportunities and improving the reconciliation of work and family life can be found under <https://www.io-warnemuende.de/equal-opportunity.html>.

Applications from female candidates are explicitly encouraged and will be treated preferably in case of equal qualifications and suitability, since the position to fill is in a structural unit where women are under-represented.

The Leibniz Institute for Baltic Sea Research offers a varied work in the immediate vicinity of the Baltic Sea. Interdisciplinary research topics on the Baltic Sea ecosystem, broad in-house expertise in physical, chemical and biological oceanography, and marine geology, state-of-the-art-laboratory equipment and infrastructure together with modern facilities provide an excellent framework for best research conditions.

Job interviews will probably take place on January 20th, 2022. Participation via video chat will be possible. Unfortunately, application and travel costs cannot be reimbursed.

For further Information please contact:

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or visit our website: www.io-warnemuende.de