

Job announcement (Phy-11/2020)

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 (PostDoc)

position at the earliest starting on March 1st, 2021. 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 for two years.

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 an interdisciplinary research project on the effects of marine bottom trawl fishing, the consequences of mechanical impacts on matter fluxes across the sediment-water interface shall be investigated in an early diagenetic model. This already existing model describes biogeochemical processes in the upper ~20 cm of the sediment. First, preparatory tasks have to be performed: Calibration of the model to new locations and the technical expansion of the model, so it can be used for scenario simulations of mechanical effects of bottom-contact fishery (e.g. removal or mixing of the uppermost sediment layer). Then, the following research questions shall be answered:

- Which of the observed changes in sediment-water fluxes and in pore water composition can be explained as a direct consequence of the physical perturbation, and which have to be understood as indirect consequences?
- Can biogeochemical changes in the sediment, which occur after different physical disturbances (removal of uppermost sediment layer by otter boards, accumulation of sediment next to the towing track, mixing of the upper sediment, possibly with removal of organic matter), be simulated in an early diagenetic model and be understood in context?

- How does especially a shift of the redox gradient, caused by physical disturbance or by a shift in the macrozoobenthos community, influence the mineralization of organic matter?
- Which sensitivity of the mineralization on redox conditions do we need to assume to realistically reproduce the observed changes of benthic-pelagic fluxes inside the towing track?

Answering these questions requires a close cooperation inside the compound project. More information on the project can be found online under <https://www.io-warnemuende.de/dam-mgf-baltic-sea-home.html>

Qualification

We are seeking a motivated modeller with a PhD in the area of physical oceanography, marine geology, physics, 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 modelling
- Proven knowledge in marine biogeochemistry
- Application-ready programming skills
- Experience in writing scientific publications
- English language skills on a level which enables to smoothly communicate in the international project team and to write scientific publications
- Interest in collaborating in an interdisciplinary project team

Desired qualifications are:

- Knowledge in the area of sediment geochemistry or the marine carbon cycle
- Experience in higher programming language like Fortran or C++ (no scripting language), ideally Pascal
- Successful publication record, relative to the “scientific age”
- Experience in collaborating in interdisciplinary projects

Applicants are 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-11/2020**

Until **December 17th, 2020** 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

Job interviews will likely take place on January 12th and 19th, 2021. Participation via video chat is possible.

Applications of 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 for the third time in row the Total Equality Certificate in 2019.

Our family office, equipped with computer workstation and toys, offers parents the opportunity to take children to the IOW for shorter time periods. 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 of 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 underrepresented.

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.

Application and travel costs cannot be reimbursed.

For further information please contact:

hagen.radtke@io-warnemuende.de

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

