

## Job announcement Phy 10/2020

The Department Physical Oceanography and Instrumentation of the Leibniz-Institute for Baltic Sea Research Warnemünde (IOW) is offering, subject to the availability of funding, a position (30 h/week) as

### PhD Student in Physical Oceanography

**for 3 years**, starting on **01 January 2021**. Remuneration is paid in accordance with the TV-L salary scale at level EG 13 monthly gross salary.

IOW is an independent institute of the Leibniz Association, focusing on coastal marginal seas, especially the Baltic Sea. Our scientists collaborate within the framework of a joint research program inside four departments (Physical Oceanography, Marine Chemistry, Biological Oceanography and Marine Geology).

#### Job description

This position is part of the collaborative research center TRR181 “Energy Transfers in Atmosphere and Ocean” (<https://www.trr-energytransfers.de/>), funded by the German Research Foundation (DFG). In this project, several German Universities and research institutes collaborate towards the development of the next generation of “energy consistent” climate models.

The PhD position announced here will focus especially on feedback mechanisms between the ocean and the atmospheric boundary layer induced by the presence of thin thermal layers at the ocean surface. In climate models, these processes play an important role for the regulation of atmospheric convection and the energy exchange between the tropical/subtropical ocean and the atmosphere. These feedback mechanisms are, however, not well represented in existing climate models. Main focus of the dissertation work will therefore be the analysis of a new type of ultra high-resolution numerical simulations, complemented by experimental data from ship expeditions in the South Atlantic Ocean. These investigations will be conducted in close collaboration with the Max Planck Institute for Meteorology in Hamburg, where, simultaneously with the oceanographic studies at IOW, the corresponding atmospheric simulations will be carried out.

## Qualification

Applicants must have an MSc in Physics, Applied Mathematics, Physical Oceanography, or a related discipline. We also expect a deep interest in interdisciplinary basic research, good English skills, both written and spoken, and the ability to work in a team. Applicants must also be willing and able to participate in multi-week seagoing research expeditions. Good programming skills (for example, in Fortran, Python, Matlab), knowledge in geophysical fluid mechanics, and experience in numerical modeling are advantageous.

Applicants are asked to send their complete applications (cover letter, CV, copies of certificates, description of relevant activities, publications) **as a single PDF file**, quoting the subject **Phy-10/2020**, until **20 November 2020** by email to:

[bewerbung.physik@io-warnemuende.de](mailto:bewerbung.physik@io-warnemuende.de), or by regular mail to:

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

Applications of disabled persons with same professional and personal qualifications will be treated preferentially. Please indicate your handicap in the cover letter, and enclose the relevant certificate.

This job advertisement is aimed at all persons regardless of their gender. IOW promotes equal opportunities and was awarded the Total Equality Award (TEQ) regularly since 2013. An overview of our measures to equal opportunities and to improve the compatibility of work and family can be found at <https://www.io-warnemuende.de/equal-opportunity.html>. Our family office, equipped with a computer workstation and toys, allows parents to take their children to IOW for shorter time periods. Applications of female candidates are particularly encouraged, and will be treated preferentially in case of equal qualifications and suitability, as the post to be filled belongs to a structural unit in which women are underrepresented.

IOW offers ideal research conditions with access to state-of-the-art technical infrastructure and excellent expertise in all marine disciplines. The institute is located in the immediate vicinity to the Baltic Sea in an attractive recreational area.

Application and travel costs cannot be reimbursed, unfortunately.

For further information, please contact Lars Umlauf ([lars.umlaut@io-warnemuende.de](mailto:lars.umlaut@io-warnemuende.de)) or visit our website at [www.io-warnemuende.de](http://www.io-warnemuende.de).

