Job announcement (Phy-02/2020)

The Department Physical Oceanography and Instrumentation of the Leibniz Institute for Baltic Sea Research Warnemünde (IOW) is seeking a highly motivated

PhD candidate

for a PhD project on regional climate modeling for the Baltic Sea region with a start in summer 2020. Remuneration is paid in accordance with the TV-L salary scale at level EG 13 monthly gross salary. The employment is temporary for 3 years (30 hrs/week).

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.

Job description

In the course of climate change, the physical and biogeochemical conditions in coastal seas like the Baltic Sea are altering. In addition, environmental conditions in many coastal seas have deteriorated in recent decades due to the excessive supply of nutrients, plastics and toxins. For instance, as a result of the introduction of nutrients through the rivers and atmosphere in the Baltic Sea, the oxygen-depleted seabed has expanded dramatically in recent decades. But also the physical conditions, such as (1) horizontal and vertical oxygen transport in the ocean and (2) water temperatures have partly contributed to this development. The planned study is intended to identify changes in the Baltic Sea and other comparable coastal seas with the help of long-term observations and to explain the causes of the observed changes with the help of existing numerical models. Both statistical methods and sensitivity experiments with models will be used. In addition, the models will be used to carry out studies on how the existing environmental monitoring program in the Baltic Sea can be improved.

The candidate will work with these objectives and will perform the necessary model calculations and analyses of model results and observational data independently. The extensive background knowledge has to be acquired from

literature studies. The PhD student will be responsible for the presentation of research results at workshops and conferences. The job requires a high degree of autonomy and responsibility. The candidate will be part of a larger team. It is expected that the PhD thesis and graduation will be completed within 3 years.

Qualification

The applicant must have a very good university degree in the discipline meteorology, oceanography, physics, mathematics or a related scientific discipline with pronounced physical-mathematical components. Good to very good knowledge of English language, knowledge of scientific programming (e.g. in Fortran) and experience in the work under Linux / Unix and with graphical data analysis with programs such as R, Matlab, Python are required.

In addition, experiences in high performance computing, parallel programming, the statistical analysis of geophysical observations and model data and knowledge about the climate system and the physical and biogeochemical processes in the sea and in the atmosphere are desirable.

Applicants are kindly asked to send their complete applications (Cover letter, CV, copies of certificates, description of relevant expertise and professional activities, list of publications and at least two references) quoting the code **Phy-02/2020** until **15 March 2020** to

bewerbung.physik@io-warnemuende.de

or

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

The interviews are expected to take place on 21-23 April 2020.

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.

The job advertisement is aimed at all persons regardless of their gender. Applications of female candidates are expressly encouraged and will be treated preferably in case of equal qualifications and suitability.

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.
The IOW promotes equal opportunities and has been awarded the Total Equality Certificate (TEQ) in 2013, 2016 and 2019. An overview of our measures to equal opportunities and to improve the compatibility of work and family can be found at http://www.io-warnemuende.de/gleichstellung.html. Our family office, equipped with computer workstation and toys, offers parents the opportunity to take children to the IOW for shorter time periods.
Application and travel costs cannot be reimbursed unfortunately.

For further information please contact:

Prof. Dr. Markus Meier, email: markus.meier@io-warnemuende.de

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