International Research Training Group ArcTrain: Processes and impacts of climate change in the North Atlantic Ocean and the Canadian Arctic

The DFG-funded International Research Training Group ArcTrain, a collaborative project between the University of Bremen, the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, and a consortium of eight Canadian universities invites applications for a

PhD position

in the area of numerical ocean and climate modelling in the framework of project HB-11*:* ***Impact of projected changes in meltwater run-off from the Greenland ice sheet on the hydrography and circulation in the North Atlantic Ocean.***

The Greenland ice sheet (GIS) is expected to partly melt during the current and future centuries. This will not only contribute to global sea-level rise, but also affect the hydrography and circulation in the North Atlantic Ocean, including the Baffin Bay, Labrador Sea and Laurentian Fan region. The project focusses on the impact of projected changes in meltwater runoff from the GIS on open-ocean convection, explicitly taking into account the role of the coastal circulation and iceberg transport. It will make use of a configuration of the MIT general circulation model (MITgcm) with an existing water-isotope package for the North Atlantic and Arctic Oceans. A major task will be the adaptation of a state-of-the-art iceberg component simulating the melting and drifting of icebergs.

We are searching for a highly motivated and skilled researcher, who has a strong interest in exploring the fundamental mechanisms of future changes in ocean circulation and climate using numerical modelling. The PhD student will be part of the Geosystem Modelling group at the Faculty of Geosciences/MARUM, University of Bremen, working under the supervision of Dr. André Paul and Prof. Michael Schulz. A research stay is envisaged at the University of Alberta in Edmonton, Canada.

Requirements:
- MSc or equivalent qualification in physical oceanography, geosciences, physics or applied mathematics
- Experience in numerical modelling and scientific computation (e.g. Unix/Linux shell scripting, programming in Fortran and script languages such as MATLAB or Python)
- Familiarity with a global or regional ocean model
- Applicants should be proficient in English, have excellent skills in scientific writing and enjoy working in an international and interdisciplinary team.

The position is for a fixed term of 3 years. It is funded by the German Science Foundation (DFG). The position must be filled by 1st October 2019. Salary corresponds to 2/3 TV-L E13.

Applicants should submit under the reference number **A108/19 (HB-11/3)** their letter of motivation, a CV including copies of certificates, a publication list if applicable, and contact information of two referees. Documents should be submitted electronically as a PDF file (maximum size 2 MB) to arctrain@marum.de. The call is open until the position is filled. The review of applications will commence on May 24th 2019.

The University of Bremen has received a number of awards for its gender and diversity policies and is particularly aiming to increase the number of female researchers. Applications from female candidates, international applications and applications of academics with a migration background are explicitly welcome. Disabled persons with the same professional and personal qualifications will be given preference.

For further information, please contact **Dr. André Paul** (apaul@marum.de).