



## **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 climate/ice-sheet modelling in the framework of project HB-04: ***Greenland Ice Sheet meltdown and ocean circulation feedbacks: Marine Isotope Stage 11 versus future climate projections in a coupled climate/ice-sheet model.***

Proxy data suggest a nearly complete deglaciation of Greenland towards the end of the Marine Isotope Stage (MIS) 11c interglacial about 400,000 years ago, when the global sea level was 6-13 m higher than today. Sea-level reconstructions suggest that the MIS 11c ice-sheet meltdown from a configuration similar to that of today occurred over a period of about ten thousand years. In contrast, projections of the Greenland Ice Sheet (GIS) imply a more rapid decay of the ice masses in the future. The resulting meltwater fluxes to the North Atlantic may impact ocean circulation and associated heat transport. This project aims at quantifying feedbacks between ocean circulation changes and ice melt as well as the pace and magnitude of the GIS meltdown during MIS 11c in relation to projections of future climate change by means of a fully coupled climate/ice-sheet model that has been developed by the Geosystem Modeling group at MARUM.

We are searching for a highly motivated and committed researcher with a strong interest in climate/ice-sheet modelling. The PhD student will be part of the Geosystem Modelling group at MARUM, University of Bremen, working under the supervision of Dr. Matthias Prange and Prof. Michael Schulz. A research stay is envisaged at the Memorial University in St. John's, Canada.

### **Requirements:**

- MSc or equivalent qualification in (climate) physics, physical oceanography, atmospheric science, glaciology, Earth sciences or a related field with strong mathematical background
- Knowledge of climate, ocean or ice-sheet dynamics
- Experience in numerical modelling and scientific programming
- 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 1<sup>st</sup> October 2019. Salary corresponds to 2/3 TV-L E13.

Applicants should submit under the reference number **A108/19 (HB-04/3)** 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](mailto:arctrain@marum.de). The call is open until the position is filled. The review of applications will commence on May 24<sup>th</sup> 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. Matthias Prange** ([mprange@marum.de](mailto:mprange@marum.de)).