

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 modeling in the framework of project HB-11: ***Fate and impact of deglacial meltwater runoff in the northwestern Atlantic Ocean.***

The meltwater runoff from the Laurentide ice sheet is thought to be responsible for abrupt changes in the circulation of the northwestern Atlantic Ocean during the last deglaciation. We are interested in the fate and impact of meltwater entrained by coastal currents along the continental shelf as well as transported by icebergs on open-ocean convection, movements of the subpolar front and sub-surface warming, as recorded by microfossils in marine sediment cores from the Baffin Bay, Labrador Sea and Laurentian Fan. Our tool is a regional ocean model (based on the MIT general circulation model - MITgcm) that is forced by global climate and ice-sheet model output, which allows to trace the meltwater including its isotopic signature and investigate its effects. The PhD student will work in collaboration with Dr. A. Paul, Dr. M. Losch, Dr. S. Mulitza and Prof. M. Schulz at MARUM, University of Bremen. A research stay is envisaged with Prof. S. Marshall at the University of Calgary.

We are looking for a highly motivated and skilled individual, who has a strong interest in exploring the fundamental mechanisms of past changes in ocean circulation and climate using numerical modeling.

Requirements:

- Completed MSc or equivalent degree 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 (preferably the MITgcm)
- Applicants should be fluent in English, have excellent English writing skills 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 earliest starting date is October 1st, 2016. Salary corresponds to 2/3 TV-L E13.

Applicants should submit under the reference number **A86/16 (HB-11/2)** 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 coordinator, Gabriella Wehr (gwehr@marum.de). The call is open until the position is filled. The review of applications will commence on June 1st 2016

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.

Further enquiries can be addressed to

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