

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 physical oceanography in the framework of project HB-07: *Impacts of fronts on detachment of waters from the boundary current and consequences for their lateral spreading within the subpolar gyre of the North Atlantic.*

The deep western boundary current (DWBC) carries components of North Atlantic Intermediate and Deep Waters of subpolar origin towards the southern boundary of the subpolar gyre of the North Atlantic. Variations in the atmospheric forcing and input of freshwater from the Arctic are important drivers for changes in their properties on intra-annual to decadal time scales. Under global warming conditions, changes in the water masses may impact on the large-scale circulation and on the lateral redistribution of water masses. Subpolar water masses are detached from the boundary current system and injected into the interior subpolar gyre, but where this detachment happens and by what processes this detachment or associated variability is governed is not yet clear. Particularly, the role of fronts (thermal and haline) acting as a boundary between subpolar and subtropical regimes and the associated generation of eddies shall be investigated in detail. Using different kinds of oceanographic observations and model output, this project aims at understanding the role of fronts for enabling or inhibiting detachment and lateral exchange of subpolar waters. We are searching for an enthusiastic and committed researcher with interest in physical oceanography. The PhD student will be part of the "Physical Oceanography" group of the University of Bremen, working under the supervision of Dr. Dagmar Kieke. A research stay is envisaged at the University of Edmonton, Alberta, Canada.

Requirements:

- Completed MSc or equivalent qualification in physical oceanography, meteorology, geosciences, physics or related fields
- Knowledge of physical processes related to ocean circulation and water mass formation
- Experience in analysing large-scale oceanographic data sets and scientific computation using MatLab®, and/or Python will be advantageous
- Prior experience in marine science and oceanography is advantageous
- Applicants should have excellent English language 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-7/2)** 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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