

The Collaborative Research Center 1502 (SFB 1502) on Regional Climate Change: Disentangling the Role of Land Use and Water Management (DETECT) has recently been awarded funding by the Deutsche Forschungsgemeinschaft (DFG). In the framework of DETECT, the Institute for Geosciences, Department of Meteorology, of the University of Bonn invites applications for a

## **postdoctoral scientist (E13, 100%, TV-L)**

starting as soon as possible. The position is fixed-term, initially for a period of 4 years, with the possibility of an extension.

DETECT is a research network of hydrologists, meteorologists, land-use modellers, geodesists, data assimilation and remote sensing specialists, data scientists, agricultural economists, and social scientists from the Faculties of Agriculture (LWF) and Mathematics and Natural Sciences (MNF) of the Rheinische Friedrich Wilhelms University Bonn (UB), the Universities of Cologne and Göttingen (UG), the Forschungszentrum Jülich (FZJ) and the Deutscher Wetterdienst (DWD). Projects within DETECT will investigate how land-use and water management lead to persistent modifications in the coupled water and energy cycles of land and atmosphere ('drying' and 'wetting'); and thus disentangle the role of these drivers of regional climate change from radiative forcing. They will develop evidence-based sustainability criteria for climate-smart land and water use. The SFB 1502 is well embedded in the excellent research infrastructure of the participating institutions and offers access to state-of-the-art technologies and a vibrant scientific community.

The successful candidate will work in the project on 'Precipitation Processes'. Atmospheric models still do not adequately represent precipitation generating processes, which is partly responsible for their deficiency in reproducing observed regional trends in total water storage (TWS). The PostDoc will focus on the evaluation of the representation of precipitation in the model exploiting polarimetric radar observations and state-of-the art retrievals. The candidate will quantify these deficiencies in the Integrated Monitoring System (IMS) by exploiting especially polarimetric radar observations with inherent information on precipitation generating processes aloft. The use of polarimetric microphysical retrievals and the evaluation of climate model runs in radar observation space enables to compare the observed and simulated impact of greenhouse gas forcing and regional anthropogenic interventions on precipitation generation.

### **Requirements**

We welcome applicants preferably with a PhD in meteorology or physics and a background in radar polarimetry and/or cloud microphysics. The candidate will be employed at University of Bonn under supervision of PD Dr. Trömel. Proficient English language skills in oral and written communication are required. It is expected that the candidate closely cooperates with other scientists in the Collaborative Research Center.

### **Applications**

Interested candidates should send a CV, a cover letter describing motivation, background, training and research interests, certificates, and the contact information of two persons, which can be asked for references, as a single PDF of less than 5MB to [silke.troemel@uni-bonn.de](mailto:silke.troemel@uni-bonn.de). **Applications are reviewed until the position is filled.**

### **Selection**

The selection for the positions will be based solely on merit without regard to gender, religion, national origin, political affiliation, marital or family status or other differences. Among equally qualified candidates, handicapped candidates will be given preference.