

The **Institute of Meteorology and Climate Research (Karlsruhe Institute of Technology, Campus Alpin, Garmisch-Partenkirchen, Germany)** is looking for a

PhD candidate

to fill a **three-year position** from 1st of March 2017 on (or earliest convenience).

The position is embedded in the BMBF-funded project

"Seasonal Water Resources Management in Semiarid Regions: Application-oriented Transfer of Regionalized Global Information (SaWaM)"

within the initiative *Globale Ressource Wasser (GROW)*.

In SaWaM, methods and tools for the application-oriented transfer of regionalized global information to water management in data-sparse semi-arid regions will be developed and their performance analysed. In a cooperation of seven scientific partners and two companies, the regional focus will be on Sudan, Iran, Brazil, Ecuador/Peru, and West Africa. For hydrological design purposes, our temporal scale covers the past up to the present, while for operational management purposes it will address the upcoming 1-12 months. SaWaM employs models addressing seasonal forecasting, water availability, sedimentation processes, and ecosystem states. Model approaches are extended by satellite-borne methods. An online prototype of a globally applicable decision support system for dry-land water management will be developed through an integrative approach in close cooperation with German business partners and local stakeholders.

The main work tasks for the PhD candidate are:

- Evaluating global seasonal forecasts for the different target regions
- Downscaling of global seasonal forecasts with the WRF-modeling system
- Development and application of bias correction methods for seasonal predictions
- Statistical analysis of results and comparison to different observation products

To be successful the potential PhD candidate should have:

- An excellent MSc in environmental- or natural sciences, hydrology, meteorology, engineering or computer science
- Very good programming skills, preferably (but not necessarily) in Matlab, Python, R, FORTRAN
- Experiences with the WRF-modeling system
- Good knowledge of UNIX/Linux systems
- Good communication skills in English
- Willingness to work in an international project

Please send your detailed application electronically and in one pdf-file to harald.kunstmann@kit.edu until **15th of February 2017** latest.

The position remains open until a suitable candidate has been selected.

KIT/IMK-IFU strives to achieve gender balance at all levels of employment. We therefore particularly encourage female candidates to apply for this position. With appropriate qualifications, applications from handicapped persons will be treated with preference.

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