

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

PostDoc candidate

to fill a **three-year position** from 1st of June 2017 on (or earliest convenience). The position is embedded in the DFG-funded cooperation project

High-Resolution Atmospheric Water Vapor Fields by Spaceborne Geodetic Sensing, Tomographic Fusion, and Atmospheric Modeling (AtmoWater)

with cooperation partners from KIT (GIK, IPF) and ETH Zurich (IGP).

By using GNSS and InSAR based techniques in combination with high resolution regional atmospheric weather modeling and geostatistical data merging techniques, the project AtmoWater aims at developing and evaluating new approaches to derive improved spatio-temporal estimates of the atmospheric water vapor distribution.

The main work tasks for the position are:

- Downscaling of global atmospheric models with the WRF and WRF-Hydro modeling systems
- Development of an data assimilation procedure for remote-sensing based atmospheric moisture information within WRF (3DVAR)
- Copula-based dependence structure analysis between modeled and GNSS/InSAR derived moisture fields

To be successful the potential candidate should have:

- PhD in environmental- or natural sciences, preferably meteorology, hydrology, physics
- Demonstrated expertise in data assimilation, preferably experience with copula statistics
- Expert knowledge about atmospheric dynamics and atmospheric modeling, preferably with the WRF-modeling system, knowledge about physically based hydrological modeling
- Proven programming skills in FORTRAN and preferably (but not necessarily) Python, R, or Matlab
- Good knowledge of UNIX/Linux and HPC systems including scripting
- Good communication skills in English

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