



The Institute for Geosciences, Department of Meteorology, of the University of Bonn invites applications for a

Position as PostDoc/ radar scientist (100% E13 TV-L)

within the second funding phase of the Priority Programme 2115 „Fusion of Radar Polarimetry and Numerical Atmospheric Modelling Towards an Improved Understanding of Cloud and Precipitation Processes“ (PROM). The position is fixed-term for a period of 3 years.

See <https://www2.meteo.uni-bonn.de/spp2115> for more information on PROM.

The position within the project ‚Operation Hydrometeors‘ is designed to exploit weather radar polarimetry for quantitative process and numerical atmospheric model evaluation (COSMO/ICON). The successful candidate will closely collaborate with a research scientist at the German Weather Service (DWD) in the same project to evaluate and improve the representation of hydrometeor types and sizes in the atmospheric model. In the first funding phase the project evaluated polarimetric signatures and hydrometeors in stratiform rain employing a dual strategy, based on advanced radar-based hydrometeor typing and quantification and a direct comparison of multivariate observed and synthetic polarimetric signal distributions. In Phase 2 the candidate will evaluate and improve three more key polarimetric signatures pointing to different model deficiencies: (1) Columns of enhanced differential reflectivity ZDR will guide improvements in the freezing process of raindrops, (2) ZDR near the surface is the key sign for a better parameterization of raindrop size distributions, and (3) polarimetric variables in the dendritic growth layer show pathways to improve and extend the representation of ice microphysical processes (e.g. secondary ice production) in ICON. Finally, the cooperation partner at DWD will exploit polarimetry-derived information for indirect data assimilation.

Requirements

We welcome applicants preferably with background in radar polarimetry and cloud microphysics. Proficient English language skills in oral and written communication are required. It is expected that the candidate closely cooperates with other scientists in the SPP2115 and international research groups, and likes to work in a team.

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 5 MB to 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.