

PhD Position (f/m/d) in Meteorology

Institute for Geophysics and Meteorology (IGMK)

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

The objective of this research project in the InScAPE research group (<http://gop.meteo.uni-koeln.de/inscape/>) is to gain insight into the genesis and maintenance of spatial patterns in cumulus cloud populations. These patterns play an important role in cloud-circulation coupling in the subtropical Trade wind regions. High-resolution simulations will be combined with measurements made during the NARVAL2 and EUREC4A field campaigns in the Atlantic Trade wind region. Conceptual modeling involving ideas from game theory will be applied to test hypotheses concerning mechanisms behind spatial organization in cumulus cloud fields.

YOUR TASKS

- » Configuration and generation of large-eddy simulations based on field campaign data
- » Evaluation of the model results against available cloud measurements
- » Using a population dynamics model to gain insight into spatial organization of cumulus cloud fields in the subtropical Trade wind areas
- » Scientific publication and communication of the obtained results

YOUR PROFILE

- » Master's Degree in Meteorology, Mathematics, Physics or related field
- » A strong interest in the numerical simulation of geophysical flows, boundary-layer meteorology and clouds, conceptual modeling, and game theory
- » Experience in scientific programming (Fortran, C++, Python) on UNIX/LINUX systems, preferably also on supercomputers
- » An investigative mindset, and willingness to combine principles from different scientific disciplines to gain insight into complex systems
- » Excellent communication skills in written and spoken English, as well as a proven ability to work both independently and as part of a team

WE OFFER YOU

- » an exciting research project, interaction with scientists both nationally and internationally, the opportunity to obtain a PhD degree
- » a diverse and fair working environment
- » support in reconciling work and family life
- » flexible working time models
- » extensive advanced training opportunities
- » occupational health management offers
- » local transport ticket at a discount for UoC employees

The position is available from 1 July 2020 on a part-time basis (75% position) and limited to three years. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group TV-L 13 of the pay scale for the German public sector.

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

Please send your convincing application including a motivation letter describing background, training, research interests, and motivation for this position; your CV, certificates and the contact information of two referees all merged into a single PDF via email to Prof. Dr. Roel Neggers (neggers@meteo.uni-koeln.de).

The reference number is Wiss2004-06. The application deadline is 15 May 2020.