

PhD Position in Atmospheric Modelling of Cloud Ice Microphysics

Institute for Geophysics and Meteorology (IGMK)

Foto: Thomas Josef

With approximately 50,000 students, the University of Cologne is one of the largest universities in Germany and ranks among the Excellence Universities. It employs over 600 professors and 7,000 academic and non-academic staff.

IGMK combines outstanding expertise in atmospheric modelling and remote sensing observations in an international work environment. The research group OPTIMIce lead by Dr. Kneifel focusses on novel radar remote sensing techniques combined with radiative transfer, and ice particle scattering simulations to study ice microphysical processes in clouds.

YOUR TASKS

- » Perform and analyze extensive simulations with the ICON-LEM model and a 1D Lagrangian super-particle model (McSnow)
- » Evaluate and improve ice microphysical parametrizations using fingerprints derived with novel ground-based cloud radar observations (multi-frequency, Doppler spectra, radar polarimetry)
- » Link observations and model simulations with a radiative transfer model
- » Active participation in research communication (seminars, conferences, publication in international journals)

YOUR PROFILE

- » Excellent Master's Degree in Meteorology, Geosciences, Physics or closely related field
- » Highly motivated person with background and high curiosity in atmospheric modelling, cloud ice microphysical processes, radiative transfer, and radar remote sensing
- » High experience in scientific programming (especially Fortran and Python) and in analysing modelling and observational datasets
- » Experience with the ICON model and the radiative transfer tool PAMTRA would be very beneficial
- » Very good communication skills in written and spoken English as well as ability to work in a team as well as independently

WE OFFER YOU

- » to carry out an exciting research project, to become part of a small research group with renown international collaboration partners and to qualify for a PhD degree
- » a diverse and fair working environment
- » support in reconciling work and family life
- » flexible working time models
- » extensive advanced training opportunities e.g. by becoming a member of the Graduate School of Geosciences
- » occupational health management offers
- » local transport ticket at a discount for UoC employees

The position is available from 1. July 2018 on a part-time basis (75%/29,87 hours). It is limited to 3 years. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

The University of Cologne promotes equal opportunities and diversity in its employment relations. Women are expressly encouraged to apply and given priority in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We expressly welcome applications from individuals with severe disabilities or people of equivalent status. Severely disabled applicants of equal merit and qualifications will be given priority.

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 for two referees by email (in one pdf-file) with the reference number Wiss1804-16 to Dr. Stefan Kneifel: skneifel@meteo.uni-koeln.de. The application deadline is 31. May 2018.