The **Institute for Geophysics and Meteorology** at the University of Cologne (IGMK) invites applications for a Research Assistant position with the oppurtunity for graduation

PhD position

Characterization of Arctic mixed-phase clouds by airborne remote sensing

starting 1January 2017 with a weekly working time of 25,89 hours (65% position) The initial contract is limited until 31 December 2019. The salary is based on the German E13 TV-L scale if terms and conditions under collective bargaining law are fulfilled.

The position is related to the Collaborative Research Center TR172 ArctiC Amplification: Climate Relevant Atmospheric and SurfaCe Processes, and Feedback Mechanisms (AC)3, which was recently approved by the German Research Foundation for an initial four year period. Within the TR172, IGMK together with the collaboration partners (Universities of Leipzig and Bremen, TROPOS and Alfred Wegener Institute) aims to better observe, understand and model processes leading to Arctic amplification.

The specific project focusses on Arctic mixed-phase clouds as their representation in climate models is still challenging and provides large uncertainties. To gather better observational constraints on the processes related to Arctic boundary layer clouds, two identical aircraft (Polar 5 and 6) will be operated north of Svalbard and equipped with airborne remote sensing and in-situ instrumentation. A key component of the remote sensing instrumentation flown on Polar 5 is the Microwave Radar/radiometer for Arctic Clouds (MiRAC), consisting of a 94 GHz cloud radar and passive microwave channels up to the sub-millimeter spectral region. The successful candidate will be involved in the installation and operation of MiRAC on Polar 5 as well as in the retrieval of microphysical properties of Arctic mixed-phase clouds, i.e., liquid water path, ice water path, ice particle properties, and humidity profiles. In addition, the potential of combining MiRAC measurements with other measurements taken on Polar 5, i.e. lidar and spectral observations in visual and infrared wavelength region, and the in-situ instrumentation on Polar 6 for a better understanding of ice formation, growth, and sedimentation will be explored. We seek a candidate with interest in both practical work and data analysis. For more information, contact Dr. Mario Mech (mario.mech[at]uni-koeln.de) or Prof. Susanne Crewell (crewell[at]meteo.uni-koeln.de).

Requirements

We expect strong interest in atmospheric sciences with specialization in cloud physics and/or remote sensing. Applicants should have a Master-of-Science-equivalent university degree in meteorology, geophysics, physics or mathematics. Experience in scientific programming, preferably in a UNIX/LINUX environment, and knowledge in computational modelling is highly desirable. Candidates must possess excellent communication skills both in written and spoken English.

Applications

Interested candidates should send a CV, a cover letter describing background, training and research interests, certificates, and the contact information of two referees as a single PDF to meteo-jobs[at]uni-koeln.de. Review of applications will begin immediately and continue until the positions have been filled, **December 06** latest.

Selection

The selection for the position 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.

The University of Cologne is an equal opportunities employer. Applications of women are thus especially encouraged; applications of disabled persons will be given preferential treatment to those of other candidates with equal qualifications.