Foto: Thomas Josek

Faculty of Mathematics and Natural Sciences

PhD Position in Meteorology (f/m/d)

Institute for Geophysics and Meteorology

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 University of Cologne/Institute for Geophysics and Meteorology is looking for a highly motivated PhD student (m/f/d) joining the team of the reasearch group ‚Integrated Remote Sensing' (Prof. Susanne Crewell) in order to support the KISTE project. In an interdisciplinary and multinational team, we are working together at various methods of integrated remote sensing (ground-based, aircraft-based and satellite-based) for cloud and energy research.

The focus of the PhD position is the characterization of cloud variability through latest satellite-based observations and application for the use of solar energy.

YOUR TASKS

» Statistical analysis of geostationary and multispectral satellite data of second and third generation Meteosat and data linkage for the assessment of solar energy
» Use of Deep Learning approaches for the identification of typical patterns in solar energy and their forecasting
» Validation of the results by means of observations at Jülich Observatory for Cloud Evolution (JOYCE)
» Presentation and discussion of the developed learning tools in a series of Earth and data scientists' colloquia
» Writing of articles about your technical developments and insights on the distribution and forecasting of solar energy
» Be part of the creation of a massive open online course to make your developed methods usable to a broad audience

YOUR PROFILE

» Master (M.Sc.) in meteorology or another relevant field of the natural sciences (geophysics, physics, mathematics and computer sciences)
» Expertise in at least one of the following areas: remote sensing, HPC systems or numeric modelling
» Advanced programming skills in Python and preferably HQL database
» Experience in handling very large data volume
» Strong interest in AI, machine learning and statistical data analysis
» Excellent communication and organisational skills
» Very good English skills

WE OFFER YOU

» A highly motivated reasearch group in an international and interdisciplinary working environment at one of Europe's oldest and largest universities
» 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 1st of September 2020 on a full-time basis 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 with proof of the sought qualifications by email (in one pdf-file) with the reference number wiss2006-10 to meteo-jobs@uni-koeln.de. Please include CV, letter of motivation, interest in research and continuing learning regarding the position, diplomas and two contacts for references,
The application deadline is 20.07.2020.

University of Cologne