Research Assistant position (3yrs) in Lidar Remote Sensing at Ludwig-Maximilians-University Munich, Germany

The Meteorological Institute (MIM) of the Ludwig-Maximilians-University Munich (LMU), Germany invites applications for a

Research Assistant on quality assurance of lidar systems

The position is offered from 01.06.2023 for a period of 3 years. The position is full-time with salary and benefits based on the German TV-L E13 scale (https://oeffentlicher-dienst.info) if terms and conditions under collective bargaining law are fulfilled.

Objectives and Tasks
The position is embedded in the Advanced High-power Lidar unit (AHL-LMU) as part of the European ACTRIS Centre for Aerosol Remote Sensing (CARS, https://www.actris.eu/topical-centre/cars). ACTRIS is the major pan-European observational research infrastructure for aerosol, clouds, and trace gases combining a wide range of remote sensing and in-situ observational methods. While the current implementation phase will last until 2026, the entire ACTRIS initiative is aimed to ensure long-term observations at the established sites. A prerequisite for producing a valuable long-term dataset of these atmospheric components is to ensure a high-quality of the measurements across all sites.

The successful candidate will join a team of atmospheric lidar experts at LMU who work on definition and performance of quality assurance of advanced high-power lidar systems (AHL) and automatic low power systems (ALC), such as ceilometers, in collaboration with our international CARS partners (Bucharest, Potenza, Hohenpeissenberg). The various lidar systems are the basis of the continuous observation of aerosol properties in the atmosphere as well as their interaction with clouds.

Tasks of the position within the AHL unit include:

- Lidar intercomparison campaigns with our mobile LMU reference lidar (POLIS) at the various ACTRIS National Facilities (https://www.actris.eu/facilities/national-facilities)
- Improvement of existing methods and development of state-of-the-art techniques to verify the quality of lidar data
- Analyzing the quality assurance tests the National Facilities submit to CARS for the acceptance as ACTRIS station
- Participate in the development, configuration, and testing of the novel POLIS-1064 reference lidar
- Definition of standard operation procedures for all ACTRIS sites
- Training of lidar operators at the various National Facilities

Your profile
We seek a motivated candidate who has high interest in atmospheric lidar remote sensing with a special focus on technical and analytical aspects of lidar technology. Ideally, the candidate should have experience in optics and electronics as well as in scientific data analysis. Mandatory requirements are:

- A completed scientific degree (diploma, master's degree or comparable) in physics, engineering, meteorology or related field
- Good programming skills (ideally python)
- Ability to communicate in spoken and written English
- Willingness to take part in intercomparison campaigns at various ACTRIS sites, and to work in a scientific team are expected

How to apply: Please send your application including a one-page letter describing background, training and motivation for this position; your CV, certificates and the contact information of two referees all merged into a single PDF via email to stefan.kneifel[at]lmu.de. Only complete applications can be considered.

Review of applications will begin immediately and continue until the position is filled. 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. The Ludwig-Maximilians-University Munich seeks to increase the share of women in scientific positions and therefore explicitly encourages women to apply. Also possible in a part-time capacity. People with disabilities who are equally qualified as other applicants will receive preferential treatment.

For further information about the project and the position, please contact Dr Stefan Kneifel stefan.kneifel[at]lmu.de or Dr Volker Freudenthaler, volker.freudenthaler[at]lmu.de