UNIVERSITÄT HOHENHEIM
INSTITUTE OF PHYSICS AND METEOROLOGY
The Chair of Physics and Meteorology

PhD Position (TV L E13/2)

for 36 months immediately available at the
Institute of Physics and Meteorology (IPM), University of Hohenheim, Stuttgart, Germany

We are seeking for a PhD candidate on convective-scale data assimilation of ground-based lidar data from different international field campaigns, sites, and upcoming networks into the Weather Research and Forecast (WRF) model system. The objective is to quantify the impact of the new generation of vertical steering and scanning water vapor, temperature, and wind lidar measurements. The goal of this study is the improvement of analyses and forecasts of dynamics and thermodynamics in the lower troposphere particularly in the atmospheric surface and boundary layers. We expect that these data are a prerequisite for advanced predictions of land-atmosphere feedback and of clouds and precipitation.

Most of the data are provided by two worldwide unique lidar systems developed at IPM, a scanning water-vapor differential absorption lidar and a temperature rotational Raman lidar which will be installed and operated at the new Land Atmosphere Feedback Observatory (LAFO) in Stuttgart-Hohenheim funded by the Carl Zeiss Foundation.

We offer an exciting work environment in an international and interdisciplinary research team of modeling and observing scientists. Particularly, this work will be performed in collaboration with DWD, Météo France, NASA, NCAR, and NOAA. IPM has an excellent infrastructure for data quality control and analysis as well as developed its own data assimilation rapid update cycle using 3D or 4D variational analyses. For model simulations as well as data storage and processing, IPM has access to the High-Performance Supercomputing Center (HLRS) in Stuttgart and to supercomputers in Karlsruhe, Germany.

We are seeking for a candidate with a master in physics, meteorology, mathematics, oceanography, or earth system science. If you are creative, enjoy team work, and are capable of working independently, we are looking forward to your application.This position involves teaching duties of 2 hours/week at the University of Hohenheim.

In order to increase the percentage of women, female applicants with equal qualifications will be preferred. The employment of severely challenged persons with the same occupational aptitude is favored. For further information you are welcome to contact Dr. Kirsten Warrach-Sagi (kirsten.warrach-sagi@uni-hohenheim.de). As this position will be filled out immediately after a suitable candidate is found, please send your application documents as soon as possible to the following address:

Prof. Dr. Volker Wulfmeyer
University of Hohenheim
Institute of Physics and Meteorology
Garbenstraße 30
70599 Stuttgart
Phone: +49 (0) 711 / 459 – 22150
Email: volker.wulfmeyer@uni-hohenheim.de