

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



PhD Position (65% of TV L E13)

for 36 months or

Postdoc Position (100% TV L E13)

for 24 months

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

We are seeking a PhD or Postdoc candidate for studying land-atmosphere (L-A) feedback processes. Better understanding of these processes is essential for improving numerical weather prediction, climate, and earth system models. Based on new and unique data set from the Land Atmosphere Feedback Experiment (LAFE, see <u>www.arm.gov/research/cam-paigns/sgp2017lafe</u>), this work has the following objectives:

- I. Determine profiles of higher-order moments of water vapor, temperature, and vertical velocity as well as latent and sensible heat flux profiles and investigate new similarity relationships for entrainment fluxes and variances.
- II. Verify LES runs and improve turbulence parameterizations in mesoscale models.

These objectives will be addressed in cooperation with the international LAFE research team, e.g., NOAA and NASA in the US, and the Local Land-Atmosphere Coupling (LoCo) Working Group of the World Climate Research Programme (see <u>www.gewex.org/loco</u>). The candidate will take advantage of the IPM water-vapor, temperature, and Doppler lidar data analysis tools for studying profiles of turbulent moments and fluxes. The LES runs are based on the WRF-NOAHMP model system. The corresponding simulations will benefit from the bw-High Performance Computing (HPC)-Infrastruktur in the state Baden-Württemberg in Germany.

We are seeking for a candidate with a master or a PhD in earth system science, meteorology, physics, or mathematics. Previous experiences with the analysis of lidar data as well as computer programming skills are beneficial. If you are creative, enjoy team work, and are capable of working also independently, we are looking forward to your application.

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. 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

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