Professorship for Land Surface-Atmosphere Interactions
TUM School of Life Sciences Weihenstephan
Technical University of Munich

The Professorship for Land Surface-Atmosphere Interactions at TUM School of Life Sciences Weihenstephan invites applications for a

Research Associate

E13 TV-L, 100 %, for 3 years

About us

The Professorship for Land Surface-Atmosphere Interactions investigates the response of the terrestrial biosphere to global climate and land use change. The goal is to gain a deeper knowledge of the functioning of ecosystem processes in a changing climate and provide guidance for sustainable management and adaptation of our ecosystems in the future. Our methodological approach includes a combination of observational data analysis and modeling, ranging from statistical modeling to the development of complex process-based models at local, regional, and global scales. We work with a range of different data streams, comprising ground-based measurements (tree rings, eddy covariance, ecosystem manipulation experiments) and remote sensing data. Using a variety of statistical methods, we explore these datasets to obtain deeper insights into the functioning of the terrestrial biosphere and its responses to environmental change. We develop and apply the well-established dynamic global vegetation model LPJ-GUESS (https://www.lsai.wzw.tum.de/lpj-guess/), which is a joint effort of an international developer team of which we are active members (http://web.nateko.lu.se/lpj-guess/credits.html). This model is the basis for exploring potential responses of the terrestrial biosphere to environmental changes and for assessing scenarios of land management. The job comprises the application and development of the dynamic ecosystem model LPJ-GUESS, the handling of large datasets (e.g., formatting input and output data), and statistical data analysis (e.g., comparison of simulated data with remote sensing data, eddy-flux-data, etc.). The contribution to university teaching (forestry and environmental sciences) is required (5 hours per week during the semester).

Your profile

You have a Ph.D. in a quantitative science, e.g., geo-ecology, environmental science, biology, meteorology, or systems analysis. Advanced knowledge of scientific programming (preferably R, Python and C++) and experience in ecosystem/atmospheric modeling is required. Experience with running simulations on a LINUX/UNIX cluster would be advantageous. You are confident in handling large datasets and statistical data analysis. You are interested in working independently and developing your own research agenda. You have excellent skills in communicating concepts and results in literate English, including writing publications and applying for third-party funding. We expect the candidate to have good communication skills and the ability to work in a team.

Our offer

We offer a stimulating working environment in an interdisciplinary research team with the opportunity to contribute to existing projects (see www.lsai.wzw.tum.de) and to develop your own research agenda. The position is full-time, and conditions of employment follow the rules of the German tariffs of public services (TV-L). TUM is an equal opportunity employer. Qualified women are therefore particularly encouraged to apply. Applicants with disabilities are treated with preference given comparable qualifications.

Contact

Please send your application as a single PDF file, including a cover letter, CV, a brief description of scientific achievements and interests, and contact information of two referees, as soon as possible (preferably by June 5th, open until filled) to Dr. Andy Krause (andy.krause@tum.de). The planned starting date of the position is as soon as possible. For further inquiries, please contact Dr. Andy Krause or Prof. Dr. Anja Rammig. For more information on our group and current projects, please see www.lsai.wzw.tum.de.