

The Karlsruhe Institute of Technology (KIT) and its Institute of Meteorology and Climate Research / Atmospheric Environmental Research (KIT/IMK-IFU) at Campus Alpin in Garmisch-Partenkirchen, Germany, invites applications for:

Full time PostDoc/ Researcher position:

“Biogeochemical and distributed hydrological model development and coupling”

The division of “Bio-Geo-Chemical Cycles” at Karlsruhe Institute of Technology (KIT) IMK-IFU in Garmisch-Partenkirchen is looking for a qualified, creative and motivated postdoc/researcher with profound programming skills and experience in the development and coupling of biogeochemical and/or distributed hydrological models.

Potential fields of work are:

- description and technical implementation (C/C++) of biogeochemical processes such as microbial (de-)nitrification, NH_3 volatilization and architectural plant fine root development into the ecosystem model framework LandscapeDNDC (<http://ldndc.imk-ifu.kit.edu>)
- coupling LandscapeDNDC to the distributed hydrological model CMF (<https://philippkraft.github.io/cmfi>) in order to describe the influence of lateral transport of dissolved nutrients on C and N turnover at catchment scale

General research questions are related to the investigation of C and N transformation processes and biosphere/hydrosphere/atmosphere exchange of environmental important C and N compounds (N_2O / NH_3 / CO_2 / CH_4 / NO_3^- / DOC/ DON) for managed and natural ecosystems at local to catchment scales. The successful candidate is strongly encouraged to bring in and pursue own research ideas that are related to the above or other existing or upcoming projects within the research group.

Your Profile

- University degree in geosciences, physics, computer science or related fields
- Experience in biogeochemical and/or hydrologic modeling
- Advanced skills in programming with C/C++
- Experience in high-performance computing
- English language proficiency and proven ability to write scientific publications

- Strong communication and teamwork skills

We offer

- International, interdisciplinary and friendly working environment
- Large international network
- Attractive research campus at the foot of Germany's highest mountain
- The gross salary will be equivalent to the public service TV-L13, initially for the duration of three years

Applications

Applications should be sent by email to Prof Dr. Klaus Butterbach-Bahl (klaus.butterbach-bahl[at]kit.edu) and/or PD Dr. Ralf Kiese (ralf.kiese[at]kit.edu) and should include a detailed CV, including personal contact information and three references as well as a two-page research statement addressing your specific interest, motivation and qualifications for the position. Specifically, the following points should be addressed

- What skill and abilities would you bring to the team?
- What skills and abilities would you hope to gain from working on this position? What is your specific research interest regarding agriculture and climate change?

We are looking to fill the position by the end of the year but the application will remain open until a suitable candidate has been found.

KIT strives to achieve gender balance at all levels of employment. We therefore particularly encourage female candidates to apply for this position. With appropriate qualifications, applications from persons with handicaps will be treated with preference.