



The research group on Multiscale and Stochastic Dynamics (www.multiscale.systems) at the Technical University of Munich seeks candidates for the following position:

doctoral researcher (3-year) in applied mathematics

Interested candidates should have a background in (at least one) of the following areas:

dynamical systems, stochastic processes, scientific computing or PDE

The position is funded within the interdisciplinary **CriticalEarth project** (see description below) with a duration of up to **36 months**. The successful candidate will join the research activities of the Multiscale and Stochastic Dynamics group at TUM and contribute to the development of the CriticalEarth project with a focus on dynamics of differential equations and related applications in the geosciences. The salary scale is TV-L 13 at 75%, i.e., a standard doctoral position. The project is carried out in collaboration with several groups within the CriticalEarth Project Team located across Europe. The position will be based in Munich. There is a **mobility requirement**: You must not have resided or carried out your main activity (e.g. work, studies) in Germany for more than 12 months in the 3 years immediately before the recruitment date.

Further Requirements:

- Master-degree or equivalent (completed already or to be completed till January 2021)
- strong technical background in mathematics or physics
- general interest in climate/geoscience and related applications
- good English language skills (written and oral)
- excellent grades

Application Materials

- CV + publication list
- transcript(s) for bachelor-/master-level studies
- names and full contact addresses of at least two references
- brief statement of scientific interests / motivation

should be sent as **ONE** PDF-file to: ckuehn@ma.tum.de

Evaluation of applications may start immediately, the main application deadline is: **November 30th 2020**. However, applications may be accepted until the position is filled. Once the position is filled, this will be announced on the webpage: <http://www.multiscale.systems/jobs.html>

About the **CriticalEarth project**: The objective of CriticalEarth is to train a cohort of exceptional young scientists, and to advance our understanding of tipping points and assess possible connections between tipping elements in the climate. Fundamental development of the mathematics involved in such multi-scale problems and methods for exploring rare events and critical transitions in computationally heavy state-of-the-art climate models are in focus. The dynamical behavior of complex systems such as the climate in terms of bifurcations and the dependence on stochastic fluctuations as well as the feedbacks involved in the physical processes causing critical transitions will be subject of the research. [This project has received funding from the European Unions Horizon 2020 research and innovation programme under grant agreement No 956170]

Informal inquiries regarding the position should be directed to ckuehn@ma.tum.de