

The Institute of Geography invites applications for a doctoral candidate position at the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) in Erlangen, Germany. **The position will preferably start in November or December 2022.**

**Doctoral candidate, 3 years, 67%, Entgelt-/Bes.Gr. E13 (3 years)**

The position is part of a new joint project of FAU Geography and the Bavarian Academy of Sciences in Munich within the DFG Priority Program “Antarctic Research with Comparative Investigations in Arctic Ice Areas”. It targets a better understanding of the current state and sensitivity of ice shelves on the western Antarctic Peninsula, in particular in view of warm water upwelling in this sector. We are specifically interested in investigating the potential of significant further retreat of ice shelf tributaries. By focusing on ice shelves, and associated tributaries, along the west coast of the Antarctic Peninsula and surrounding islands. Specifically, we aim at deriving dense time series of glacier surface velocities for subsequent ice dynamic model assimilation; updating the spatial database on various other glaciological variables (elevation change, grounding line, ice front positions, surface features and structural conditions) and improving current estimates of mass change using the input-output method.

**Required skills:**

- MSc in Geography, Earth Sciences, Physics, Computer Sciences, Applied Mathematics or a related field with an very good grade
- Programming skills (Python, R, shell or similar)
- Affinity for scientific computing and development of processing algorithms
- Knowledge of processing of satellite data, specifically from SAR missions
- Good reporting and presentation skills
- Excellent level of written and spoken English
- Ability to work independently, to critically assess own results and to cooperate within a wider research team

**Desired and advantageous skills are:**

- Interest for understanding Earth System processes and their complex interactions
- Affinity for remote sensing and earth science data analysis
- Experience or interest in big data handling, high-performance computing or cloud computing
- Demonstrated capacity for independent thinking and diligence

Proficiency in German is advantageous but not required, as the working language is English.

The candidates will be placed at the FAU Institute of Geography (<https://www.geographie.nat.fau.de/>), which offers a vivid working environment with specific research focus on mountain and polar regions. The desired starting date is November or December 2022. The employment is limited to 3 years due to project funds with a possibility for extension pending on availability of funds. Depending on qualification and personal requirements, this position is grouped into the Entgelt-/Bes.Gr E13. The Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) is seeking to augment the number of women in research and teaching and specifically addresses female scientists to apply for this position. We further encourage persons with disabilities to apply. If desired, a member of the equal

opportunity office of FAU can participate in the selection process without any disadvantage for the applicant.

For your application, please send a single PDF to [sabine.donner@fau.de](mailto:sabine.donner@fau.de) stating "DFG CSAPIS doctoral candidate" as subject. The PDF should comprise:

- cover letter (stating your background and motivation for this project)
- CV
- transcript of records, other certificates (if any)
- two reference letters (if any)

**Deadline for application: 20 August 2022, the position is open until filled.**

Further information:

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