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%, Entgeld-/Bes.Gr. E13 (3 years)**

The position funded by a research project within the DFG Priority Program “Antarctic Research with Comparative Investigations in Arctic Ice Areas”. It targets the analysis of long-term glacier volume change on the Antarctic Peninsula by means historical aerial imagery analysis in combination with recent aerial and space-borne remote sensing data.

Since the 1950s, various aerial campaigns were carried out to map the Antarctic Peninsula. The acquired photogrammetric imagery poses a “time capsule” of information on the historic glacier states. Thus, we aim within this project to unlock this information from the historic aerial imagery by applying state-of-the-art photogrammetric analysis techniques to reconstruct the former glacier surface elevations. The resulting information on glacier volume changes will be correlated with oceanic, atmospheric, and glacier geometry parameters in order to identify driving factors of the revealed glacier variations.

**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 analyzing remote sensing data
- 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 wider research team

**Desired and advantageous skills are:**

- Interest for understanding Earth System processes and their complex interactions
- Experience in photogrammetric image processing
- Experience or interest in 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 stating “DFG UNLOC 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: 01. September 2022, the position is open until filled. Further information: Dr. Thorsten Seehaus, Institute of Geographie, FAU phone: +49-(0)9131-85-23303, e-mail: thorsten.seehaus@fau.de