

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Environmental Sciences, Department of Geosciences**, the **Chair of Geodetic Earth System Research** offers a position as

Research Associate / PhD Student (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **earliest possible date**. The position is limited to 3 years and comprises 67,5% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

Tasks: You will work on the research project “Resolving processes of Antarctic Ice Sheet change through innovations in satellite altimetry” (RAISA) as part of the German Research Foundation's priority programme “Antarctic Research”. You will collaborate with national and international partners, including the Alfred Wegener Institute for Polar and Marine Research. The tasks include:

- scientific advancing methods of satellite altimetry analysis over the Antarctic Ice Sheet
- analysis of measured surface elevation changes in conjunction with results from numerical modelling of surface mass balance, firn compaction and ice flow dynamics
- identifying and quantifying processes of ice sheet change and ice mass balances
- developing stochastic uncertainty characterisations for mass balance estimates from satellite altimetry
- applying the results in comparative studies and combination studies with complementary methods such as satellite gravimetry
- presentation and publication of the results

Requirements:

- university degree (Master's or equivalent) in geodesy or a related subject (geophysics, geoinformatics, physics, mathematics)
- excellent analytical skills
- very good command of programming and scripting languages
- willingness to engage in interdisciplinary collaboration at national and international level
- strong social skills and very good communication skills
- proficiency in English (level B2 to C1 according to the Common European Framework of Reference for Languages); knowledge of German would be an asset

Experience in the following areas would be an asset:

- geodetic space techniques, such as satellite altimetry
- methods of parameter estimation and stochastic modelling
- studies of ice sheet processes

We offer:

- an exciting and varied position in a working group engaged in geodetic and polar research with strong motivation, mutual support, and appreciation
- extensive training and further education opportunities
- flexible and family-friendly working hours

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application with the usual documents and quoting the **reference acronym "RAISA"** by **September 29, 2025** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to martin.horwath@tu-dresden.de or to: **TU Dresden, Chair of Geodetic Earth System Research, Prof. Martin Horwath, Helmholtzstr. 10, 01069 Dresden, Germany.** Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>.