

The Deutsches Geodätisches Forschungsinstitut (German Geodetic Research Institute) of the Technical University of Munich (DGFI-TUM) is accepting applications for a

## PhD student (m/f) in the research area Satellite Altimetry

The determination of water level changes on different spatial and temporal scales based on satellite altimetry has been a primary research goal of DGFI-TUM for many years. The institute's data base comprehends the complete observation record of all altimetry missions that have been launched until now. After consistent pre-processing and relative calibration, these data are available for the joint analysis (multi-mission altimetry) and for the investigation of various phenomena in the ocean as well as in the continental hydrosphere.

DGFI-TUM's focus in the field of **ocean altimetry** is the determination of most accurate sea surface heights using advanced analysis methods with special emphasis on coastal and polar regions. The observation data are used for studying sea level changes, ocean currents and for empirical ocean tide modeling. A rather new field of research is the analysis of the radar signals to extract information on ocean wave heights and wind patterns.

We are looking for a PhD student for altimetry research with focus on the exploitation of the radar altimetry observations to determine the sea level, ocean waves and wind patterns in the context of a changing climate. The candidate will work as part of an international team in the frame of *ESA's Climate Change Initiative*. The research specifically involves the design of estimation algorithms to fit radar signals from different satellite missions, including pulse-limited and Delay-Doppler observation techniques, as well as the validation, exploitation, and interpretation of the results.

### Your profile

- University degree (M.Sc.) in geodesy, engineering, mathematics, informatics, oceanography or related
- Skills in signal processing, data analysis, mathematical and statistical model development
- Ability for independent research as part of a team, interest in the presentation and publication of scientific results
- Advanced computer literacy and programming skills, preferably in Python
- Good command of the English language (speaking and writing)

### We offer

- Independent and challenging research in an internationally well connected team
- Flexible and family friendly working hours
- Fixed term contract for a period of initially 3 years, starting as soon as possible
- Salary according to employment category E13 (100%) of the collective labor contract TV-L
- Attractive office in the Residence of Munich at the Odeonsplatz

All PhD candidates of the TUM are obligated to participate in the TUM Graduate School (<http://www.gs.tum.de>) that offers attractive additional funds for research training, soft-skill programs and international mobility/stays abroad. The TUM aims to increase the number of women employees. Qualified women are therefore especially encouraged to apply. Handicapped applicants will be preferred if applicability and qualification are equivalent

### Interested?

Do not hesitate to contact us for questions regarding the position. We are looking forward to receiving your application with relevant documents per mail or email no later than **October 31, 2018** to:

Deutsches Geodätisches Forschungsinstitut der Technischen Universität München (DGFI-TUM)

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