Deutsches Geodätisches Forschungsinstitut (DGFI-TUM)
TUM School of Engineering and Design
Technical University of Munich

The Deutsches Geodätisches Forschungsinstitut of the Technical University of Munich (DGFI-TUM) is accepting applications for a PhD / Postdoc

Scientific position (m/f/d) in the research area Reference Systems with focus on the analysis of VLBI observations

Very Long Baseline Interferometry (VLBI) is one of the most important geodetic space observation techniques. By observing extragalactic radio sources, it provides a unique contribution to the determination of geodetic reference frame and Earth orientation parameters, which are core-quantities of geodesy. Their timely availability with the highest precision and stability is crucial for many societal and scientific applications. Prominent examples include positioning and navigation on Earth and in space, the determination of satellite orbits and the georeferencing of Earth observation data.

DGFI-TUM has a long-standing expertise in the analysis and combination of observations from the global VLBI network. The institute hosts an official Analysis Center (AC) of the International VLBI Service for Geodesy and Astrometry (IVS) and operates, jointly with the Federal Agency for Cartography and Geodesy, the IVS Combination Center (CC). Through its involvement in international scientific organisations, DGFI-TUM is committed to researching the latest and innovative analysis and combination strategies. VLBI observations are processed at DGFI-TUM using the DOGS analysis and combination software, which has been developed over decades and is constantly adapted to the latest scientific advancements in order to continuously improve the results.

We are looking for a scientist on PhD or Postdoc level to complement the team in our research area Reference Systems (🔗). You will develop innovative strategies to exploit the potential of new VLBI observation concepts such as VGOS and VLBI to satellites (in the context of the future ESA Genesis mission) in order to improve global reference frame and Earth orientation parameters. Through participation in international organisations, you will be directly linked to other ongoing research activities and networked with colleagues worldwide.

Your profile

- University degree (M.Sc. or doctorate) in geodesy, mathematics, physics, informatics, or related
- Experience in data analysis and complex mathematical computations
- Advanced computer literacy and programming skills (DOGS is written in FORTRAN)
- Ability for independent research as part of a team, interest in the presentation and publication of scientific results
- Good command of the English language (speaking and writing)

We offer

- Independent and challenging research in an international team at DGFI-TUM
- Flexible and family friendly working hours
- Fixed term contract for a period of initially 4 years (extension is possible), starting as soon as possible
- 100% position, salary according to the collective agreement TV-L (level determined by your years of experience)
- Attractive office in the Residence of Munich at the Odeonsplatz

PhD candidates of the TUM are required 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. TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women. Disabled applicants will be preferred in case of equivalent suitability, aptitude and professional performance.

Interested?

Do not hesitate to contact us for questions regarding the position. We are looking forward to receiving your application with relevant documents (🔗) per email (one PDF) not later than **31. March 2025** to:

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As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at https://portal.mytum.de/kompass/datenschutz/Bewerbung/. By submitting your application, you confirm to have read and understood the data protection information provided by TUM.