

At Helmut Schmidt University / University of the Federal Armed Forces Hamburg (HSU/UniBw H), Faculty of Mechanical Engineering, Professorship for Metrology (Prof. Dr. Isleif), a position is **available from the next possible** for a

Research Assistant (m/f/d)

**(salary group 13 TVöD [Collective agreement for the public service];
29,25 hours per week)**

for a limited period of 3 years.

The research is being carried out as part of the externally funded research project “Transportable, high-resolution rotation sensors”, which forms part of the research group “RING: Rotation IN Physics, Geophysics and Geodesy”, funded by the German Research Foundation (DFG), with the aim of establishing next-generation ring laser gyroscopes (RLGs) as key instruments for geodesy, physics and geophysics. These are intended to enable high-precision measurements of Earth’s rotation, including seismic rotation measurements, on both global and local scales whilst simultaneously pushing the boundaries of optical precision metrology systems. Together with project partners at the University of Hamburg, the University of Bonn and Ludwig Maximilian University of Munich, the next generation of portable, highly sensitive and low-noise RLGs is to be developed. This includes close interaction with the gravitational wave community (LVK, Einstein Telescope) and provides access to their extensive expertise in interferometric precision metrology, noise modelling and international collaborations.

Responsibilities:

- Development and application of simulation frameworks for passive RLGs (e.g. Finesse, ifoCAD)
- Establishing comprehensive noise budgets and developing digital twins
- Modelling optical, mechanical and control system effects
- Experimental validation of simulation results using existing setups
- Investigation and optimizing novel opto-mechanical designs for portable RLGs
- Contributing to the development of advanced prototype concepts
- Presentation of the results at international conferences
- Carrying out general administrative work as well as academic activities in academic self-administration

Qualification requirements:

- A completed university degree (Diploma [univ.] or Master) in the fields of physics or another relevant discipline
- Programming skills (particularly C++ and Python)
- Proven Knowledge of optics, interferometry, laser systems and sources of noise

Furthermore desired:

- Knowledge of foreign language in English with a proficiency level that corresponds to the language level B2 of the Common European Framework of Reference for Languages
- Experience with simulation and modelling tools, particularly Zemax, Ifo-CAD and Finesse
- Ability to work and communicate within an international team
- An interest in precision metrology and optical sensor systems
- A high degree of personal responsibility, the ability to think creatively and scientifically, and strong teamwork skills

Features of this position:

- Possibility of further academic qualification (e.g. doctorate or habilitation), where applicable
- Opportunities to work with leading experts and engage in international collaborations
- A very good working atmosphere
- Capital-forming benefits
- Annual bonus payment
- Company pension scheme
- Flexible working hours
- DeutschlandJobTicket with employer subsidy if the necessary requirements are met
- Possibility of claiming a childcare place in a daycare centre close to the campus if the necessary preconditions are met
- You will benefit from targeted personnel development and an extensive range of further training and education opportunities.
- Budget-friendly meals in the campus canteen with three meals a day
- Possibility of participation in the corporate benefits program
- You have the opportunity to participate in workplace health promotion offers (for more information, see: www.hsu-hh.de/bgm/).
- Free parking on the campus grounds
- Possibility of using the Bundeswehr's own car-sharing service (for more information, go to: www.bwcarsharing.de).

For questions related to scientific or technical aspects, please contact Prof. Dr. Isleif, Tel.: 040/6541-3225 or by e-mail: isleifk@hsu-hh.de.

The employment is based on the TVöD in conjunction with the Wissenschaftszeitvertragsgesetz (German Act on Fixed-Term Scientific Contracts). In principle, the activities correspond to pay group 13. Classification up to pay group 13 of the TVöD shall be made in accordance with § 12 of the TVöD with regard to the activities to be performed on a more than temporary basis and the fulfilment of the personal or collective agreement requirements (job characteristics).

Part-time employment is possible.

The Federal Armed Forces promotes professional equality between women and men and therefore particularly welcomes applications from women.

In accordance with the Sozialgesetzbuch IX [Social Code Book IX] and the Disability Equality Act, we expressly welcome applications from severely disabled persons; the fulfilment of the requirements for the advertisement will be considered on an individual basis.

The German Armed Forces supports the goals of the National Integration Plan and welcomes applications from people with a migrant background.

More information about the university and the professorship can be found at:

www.hsu-hh.de and www.hsu-hh.de/mt/.

Please send your application with the usual documents exclusively in electronic form (pdf file), quoting the reference number **MB-1326**, by **28.06.2026** to:

personalabteilung@hsu-hh.de.

Note:

Information on data protection in the application process can be found on the website www.hsu-hh.de under the heading "Universität - Karriere - Datenschutzinformationen".

Applications without reference number will not be considered and will be deleted immediately for data protection reasons.

