

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

Research Assistant (m/f/d)

(salary group 13 TVöD; 39 hours per week)

for a limited period until 31.03.2025.

This is a position in the recently established 'Metrology' working group headed by Prof. Katharina-Sophie Isleif. The working group deals with high-precision length change measurements using laser interferometry and investigates technologies for and from the field of gravitational wave detection. The aim is to design smart and minimalistic interferometer topologies and to investigate alternative interferometer technologies to provide high-precision optical sensors for next-generation gravitational wave detectors (such as the Einstein telescope) and other applications including wireless sensor and actuator networks.

The group offers an exceptional working environment through its two locations in Hamburg. The HSU campus in the east of Hamburg offers direct contact with colleagues and students in engineering and electrical engineering, as well as access to professional electronic and mechanical workshops. At the DESY Campus Bahrenfeld in the west of Hamburg, we have first-class laser laboratories at our disposal, which offer optimal conditions for sensor development in the immediate vicinity of experiments in basic research.

Responsibilities:

- Conducting out experimental work on laser interferometers and optics
- Experimental readout of a fibre sensor using digital-assisted interferometry
- Programming of an FPGA-based phase reading system
- Analysis of data from large sensor networks by means of machine learning
- Presentation of research results at international and interdisciplinary conferences and meetings
- Participation in teaching to the extent of basically 3,0 trimester-week-hour
- Possibility of further academic qualification (e.g. doctorate or habilitation)
- Carrying out general administrative work as well as academic activities in academic self-administration

Qualification requirements:

- A completed scientific university degree [Diplom (univ.) or Master] in the field of physics or photonics or a related field
- Very good programming skills in VHDL or related programming languages
- Very good knowledge of German and English, both written and spoken

Furthermore desired:

- Expertise in the field of gravitational wave detection
- Experience in dealing with digital and analogue control systems
- Interest in interdisciplinary and international research
- Ability to work independently
- Creative and team-oriented way of working
- Proactivity and good communication skills

Features of this position:

- A very good and cooperative working atmosphere
- Opportunity to independently advance the field of research as well as the implementation of your own interests and ideas
- Possibility of membership in the PIER Graduate School [Partnership for Innovation, Education and Research (www.pier-hamburg.de)]
- Participation in the excellence cluster Quantum Universe (www.qu.uni-hamburg.de)
- Capital-forming benefits
- Special annual payment
- Company pension scheme
- Flexible working hours
- You will benefit from targeted personnel development and a comprehensive range of training and education opportunities.
- Inexpensive meals in the campus canteen with three meals per day.
- You have the opportunity to take part in company health measures (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 information on technical questions, please contact Prof. Dr. rer. nat. Isleif, Tel.: 040-6541-3225 or by e-mail: isleifk@hsu-hh.de.

The employment is based on the collective agreement for the public service (TVöD) in conjunction with the Wissenschaftszeitvertragsgesetz (WissZeitVG). In principle, the activities correspond to pay group 13 (E13). However, the actual classification depends on the fulfilment of the relevant collective agreement and personal requirements.

Part-time employment is possible.

Applications from women are expressly encouraged. Women will be given preferential consideration in areas in which they are underrepresented, if they demonstrate the same eligibility, capabilities and professional performance, provided that the reasons relating to the person of a competitor do not prevail. We expressly welcome applications from severely disabled persons and persons with equivalent disabilities. Severely disabled persons and

their equals will be given preferential consideration in cases of equal suitability, ability and professional performance. Only a minimum level of physical aptitude is required for them. The fulfilment of further prerequisites of the job announcement is considered individually.

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

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

Please send your application with the usual documents exclusively in electronic form (pdf file), quoting the reference number **MB-1922**, by **30.06.2022** to:

personaldezernat@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".

If you do not provide the reference number, your application may not be considered and will be deleted immediately for data protection reasons.

