As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

The Faculty of Mathematics, Informatics and Natural Sciences, Department of Physics, Institute of Experimental Physics invites applications for a

**RESEARCH ASSOCIATE FOR THE PROJECT “INERTIAL TEST-BED FOR LOCAL READOUT INTERFEROMETRY IN THIRD GENERATION GRAVITATIONAL WAVE DETECTORS”**

- SALARY LEVEL 13 TV-L -

The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on 01.10.2020 or as soon as possible thereafter.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 3 years. The position calls for 29,25 hours.

**RESPONSIBILITIES:**

Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

**SPECIFIC DUTIES:**

The research group for gravitational wave detection of the Quantum Universe Cluster of Excellence in Hamburg studies and develops metrology for future ground and space-based detectors like the Einstein Telescope or the Laser Interferometer Space Antenna. To this end the group develops interferometric sensors that use high-speed digital signal processing and quasi-monolithic opto-mechanics to reduce critical noise sources at low frequencies. The research is conducted in international collaborations with partners all over Europe and the globe.

The position is focused on the design, realisation and commissioning of mirror suspensions placed on an inertial platform in vacuum that will be used to test enhanced local laserinterferometric sensors. Such sensors might probe the position and tilt of suspended test masses in a third generation gravitational wave detector, like the Einstein Telescope. The work involves the operation of a large vacuum system, the study and implementation of suspension and seismic isolation systems, the development of real-time readout and control schemes using FPGAs and/or CPUs, the set-up of laserinterferometric sensors and the design of a meter-scale optical resonator.

* Full-time positions currently comprise 39 hours per week.
REQUIREMENTS:

A university degree in a relevant field. Prior experience in several of the following fields is beneficial: Optics, laser interferometry, opto-mechanics, inertial sensing, seismic isolation, gravitational wave detection, analogue and digital electronics, hardware & software programming (FGPAs), digital signal processing. In addition, a high intrinsic motivation and individual responsibility, as well as creative scientific thinking and ability to work in an international team are required.

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women are currently underrepresented in this job category at Universität Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women to apply for this position. Equally qualified and suitable female applicants will receive preference.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Prof. Dr. Oliver Gerberding or consult our website at https://www.physik.uni-hamburg.de/iexp/gwd.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 31.07.2020 to: Prof. Dr. Oliver Gerberding, Institut für Experimentalphysik, Universität Hamburg, Luruper Chaussee 149, D-22761 Hamburg, Germany, email: oliver.gerberding@physik.uni-hamburg.de.

Please do not submit original documents as we are not able to return them. Any documents submitted will be destroyed after the application process has concluded.