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.

Pending approval of external funding the Faculty of Mathematics, Informatics and Natural Sciences, Department of Physics, Institute of Experimental Physics invites applications for a

**RESEARCH ASSOCIATE FOR THE PROJECT**

**“LISA PHASE READOUT - DEVELOPING A GROUND-SUPPORT PHASEMETER BASED ON MICROTCA”**

- 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, pending external funding.

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 until 30.09.2023.

The position calls for 39 hours per week. This position is also suitable for part time employment.

**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.

This position is focused on the development of an electrical ground-support equipment version of the LISA phasemeter, based on the MicroTCA.4 standard.
The project will be conducted together with DESY MSK and the DESY Technology Lab and aims to develop a phasemeter system that provides all functionalities, performance fidelity and interfaces required for the development of the LISA instrument payload and the assembly, integration, verification and testing phase of the mission. The development will be conducted in close collaboration with partners that are developing the LISA phasemeter flight-hardware. The position will be responsible for programming the FPGA and microprocessor algorithms, for electrical testing, and will support the system design. Moreover, the position will co-ordinate the activity within the research group and communicate regularly with the relevant instrument partners in the LISA consortium.

**REQUIREMENTS:**

A university degree in a relevant subject plus doctorate. Prior experience in the following fields is mandatory: hardware & software programming (FGPAs), digital signal processing, analogue and digital RF-electronics.

Prior experience in several of the following fields is beneficial: Experience with space missions, system engineering, optics, laser interferometry, thermal modelling, gravitational wave detection.

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 male 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 email to: Prof. Dr. Oliver Gerberding, Institut für Experimentalphysik, Universität Hamburg, Luruper Chaussee 149, D-22761 Hamburg, Germany, email: oliver.gerberding@physik.uni-hamburg.de, before 31.07.2020.

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.