

**Faculty/Department:** Mathematics, Informatics, Natural Sciences/  
**Seminar/Institute:** Institute for Experimental Physics

Universität Hamburg invites applications for a Research Associate in accordance with Section 28 subsection 1 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on as soon as possible.

It is remunerated at the salary level TV-L 13 and calls for 50% of standard work hours per week.\*

The fixed-term nature of this contract is based upon Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The initial fixed term is three years.

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

#### **Responsibilities:**

Associates will be expected primarily to teach and conduct research. The associate will also have the opportunity to pursue further academic qualifications, in particular a doctoral dissertation. At least one-third of set working hours will be made available for the associate's own academic work.

#### **Specific Duties:**

The group is actively involved in development of radiation hard silicon for future high luminosity collider experiments.

We strongly contributed to the design and qualification of planar pixel sensors for the upgrade of the CMS pixel detector. We carry out fundamental research in the areas of Silicon-Photomultiplier photo-sensors (SiPM) and their application in calorimeters exposed to high radiation fluences.

A close collaboration exists with research groups in experimental and theoretical physics of the Deutsches Elektronen-Synchrotron DESY, which is located on the same campus.

The Department of Physics at Hamburg University conducts leading edge research in a very international environment in particle physics (LHC, neutrino-physics), accelerator development, astroparticle physics, astronomy, nano-science and photonics.

The number of teaching hours will be 2 p/w .

#### **Requirements:**

A university degree in a relevant field. An academic degree in one of the above academic subject areas qualifying the holder to carry out the above-mentioned responsibilities.

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



The applicants should have at least one of the following required skills:

- Experience in development or operation of detector system
- Solid knowledge in laboratory equipment and statistical analysis
- Good C++ or Python programming skills

Available research topics are:

- characterization of highly irradiated pixel sensors r/o via the RD53A chip,
- design of the next generation CMS pixel sensors,
- microscopic defects analysis in nitrogen enriched silicon
- development of a set-up for characterization of irradiated SiPMs,
- radiation hard studies of SiPM, silicon pixel and strip detectors,
- development of a new scintillators-SiPM system.

Severely disabled applicants will receive preference over equally qualified non-disabled applicants.

For further information, please contact Dr. Erika Garutti, Tel. +49 (0)40 8998 3779 or consult our website at [www.desy.de/~garutti](http://www.desy.de/~garutti).

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is 15 July 2018. Please send applications to: [erika.garutti@uni-hamburg.de](mailto:erika.garutti@uni-hamburg.de).