

**Faculty/Department:** Mathematics, Informatics, Natural Sciences/ Physics

**Seminar/Institute:** Institute for Experimental Physics

Universität Hamburg invites applications for a Research Associate for the project "New hybrid reconstruction techniques (DFG TL 51/6-1)" in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on 01.01.2019.

It is remunerated at the salary level TV-L 13 and calls for 75 % 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 term is fixed for a period of 3 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:**

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

## **Specific Duties:**

Astroparticle physics is one of the topics of the research focus on particle-, astro- and accelerator-physics at the Institute for Experimental Physics in Hamburg. The German-Russian TAIGA-Experiment uses a new hybrid technique for the detection of gamma-rays in the TeV to PeV energy range. The experiment currently consists of a 1 km² array of air Cherenkov timing detector stations in combination with imaging air Cherenkov telescopes deployed in Siberia. We are developing new reconstruction and analysis techniques. Your duties within this DFG-funded project ("New hybrid reconstruction techniques") will encompass the whole data processing chain including calibration, reconstruction, and analysis (Crab Nebula and other astrophysical objects) of the first hybrid data sets. Furthermore, you will have the opportunity to contribute to the development of a calibration system and to participate in observation shifts. You will have the opportunity to write a PhD thesis in the framework of this project.

## **Requirements:**

A university degree in a relevant field. Graduation in physics with a graduation thesis (Master level or equivalent) in the topical area of astroparticle physics. Advanced knowledge in programming (primarily python, further knowledge, e.g., C/C++ desirable). Experience in the development of reconstruction algorithms and in data analysis using statistical methods. We are looking for candidates following an autonomous systematic approach and have an open-mind in the collaboration within international research teams. Good English knowledge.

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

<sup>\*</sup> Full-time positions currently comprise 39 hours per week.



For further information, please contact Dr. Martin Tluczykont (martin.tluczykont@physik.uni-hamburg.de), Prof. Dr. Dieter Horns (dieter.horns@physik.uni-hamburg.de) or consult our website at http://www.iexp.uni-hamburg.de/groups/astroparticle/score/en/.

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is 15.11.2018. Please send applications to: martin.tluczykont@physik.uni-hamburg.de, Luruper Chaussee 149, 22761 Hamburg.

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