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 for Experimental Physics invites applications for a

RESEARCH ASSOCIATE FOR THE PROJECT
“AXION DARK MATTER”
DETECTOR AND DATA ANALYSIS DEVELOPMENT FOR THE
NEXT GENERATION OF AXION EXPERIMENTS
- 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 1 June 2021 or later.

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 2 years. 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 newly formed Axion Dark Matter research group focuses on searches for dark matter in the form of axions and axion-like particles (ALPs) both in astrophysical observations and dedicated laboratory experiments. It is supported by a Starting Grant from the European Research Council. The group is part of the Cluster of Excellence “Quantum Universe” which includes leading scientists from mathematics, particle physics, astrophysics, and cosmology at Universität Hamburg and DESY.

The successful candidate for this postdoc position is expected to conduct research and development for the envisaged cryogenic detectors of the Any Light Particle Search (ALPS II) experiment and the International Axion Observatory (IAXO) as well as its pathfinder BabyIAXO.
In particular, the candidate will participate in the commissioning, characterization, and optimization of the ALPS II TES detector. Additionally the candidate is expected to develop novel software tools for data analysis using machine learning, for simulating detector backgrounds, and for triggering schemes.

Postdoctoral research associates will have the opportunity to attend summer schools, international conferences or other educational and supporting measures paid from the ERC Starting Grant. They will also become members of the Quantum Universe Research School (QURS), which provides academic and soft skills training, as well as career planning support. Postdoctoral research associates may participate in the supervision of doctoral students, teaching at the University, and in the organization of the Cluster via an early career council.

**REQUIREMENTS:**

A university degree in a relevant subject plus doctorate  
• Excellent command of the English language  
• Strong initiative and engagement in an international team environment  
• Experience in object orientated programming

Additionally, outstanding candidates will have experience in one or more of the following topical areas:  
• Developing deep learning methods using modern software packages and applying them to scientific problems  
• Programming in ROOT and GEANT4 simulation software package  
• Cryogenic detector technologies  
• FPGA based hardware

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 Dr. Manuel Meyer (manuel.meyer@desy.de) or consult our website at [www.qu.uni-hamburg.de](http://www.qu.uni-hamburg.de) and [axion-alp-dm.github.io](https://axion-alp-dm.github.io).

Applications should include a cover letter, a tabular curriculum vitae, publication list, and copies of degree certificate(s). Please send applications by **March 31, 2021** to: manuel.meyer@desy.de. Applicants should also arrange for three recommendation letters to be sent to the same address by the same deadline.

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.