



For our location in Zeuthen we are seeking:

2 Postdoc research associates in the ATLAS experiment

DESY

DESY, with its 2700 employees at its two locations in Hamburg and Zeuthen, is one of the world's leading research centres. Its research focuses on decoding the structure and function of matter, from the smallest particles of the universe to the building blocks of life. In this way, DESY contributes to solving the major questions and urgent challenges facing science, society and industry. With its ultramodern research infrastructure, its interdisciplinary research platforms and its international networks, DESY offers a highly attractive working environment in the fields of science, technology and administration as well as for the education of highly qualified young scientists.

The DESY ATLAS group is split between the Hamburg and Zeuthen sites. The Zeuthen site is a multi-disciplinary, well equipped and vibrant research lab with particle, astro-particle and accelerator research groups. The group collaborates also closely with the ATLAS Group at the Humboldt-University of Berlin.

The ATLAS Group in Zeuthen is active in Dark Matter searches with top final states and top measurements and is seeking to also expand these activities to final states involving Higgs bosons that decay to b-quark pairs. The group is also involved in the ATLAS inner detector upgrade. Both post holders will conduct research with the ATLAS experiment and complement each other. One post holder will perform searches for Dark Matter and new physics with Higgs to bb final states: mono-Higgs or Higgs + jets/gamma. These final states will be also used to prepare the ground for Higgs property measurements. The other post holder will perform top quark measurements; including associated H production. The projects will include the improvement of detector performance such as jet and MET reconstruction, tracking, flavour tagging, top tagging and/or Higgs tagging. Novel techniques such as machine learning algorithms will be also part of the projects. There is also the possibility to work on ATLAS measurements that are relevant for astro-particle physics experiments, e.g. cosmic muon data analysis or minimum-bias measurements of proton-oxygen run in the forward region.

The position

- Perform analysis and performance studies/triggers studies/service work in the ATLAS experiment
- Supervise students
- Organize and setup analyses, research projects and help to setup research cooperations
- Participate and help to prepare conferences, meetings and outreach activities
- Write various DESY reports and publish scientific papers

Requirements

- Completed University education in physics with specialization in experimental nuclear, astro-particle, or particle physics; PhD in experimental particle physics
- Experience in research in the field of experimental particle physics as well as in the analysis of large data sets
- Knowledge and experience in one or more of these areas: jet reconstruction/calibration, tracking, b-Quark, top and/or X to bb identification, trigger systems, machine learning algorithms, statistics
- Knowledge of Linux operating systems, C++ and Python
- Strong motivation, very good organizational skills, resilience; ability to work in teams and excellent communication skills

For further information please contact Prof. Dr. Cigdem Issever +49--33762-7-7271 (cigdem.issever@desy.de) and Prof. Dr. Klaus Moenig (klaus.moenig@desy.de).

Applications should include a cover letter, a tabular curriculum vitae, a research statement and copies of degree certificate(s). Please arrange for three letters of reference to be sent to the DESY human resource department (recruitment@desy.de), clearly stating your name and the position identifier (APPO017/2020).

The positions are limited to 3 years.

Salary and benefits are commensurate with those of public service organisations in Germany. Classification is based upon qualifications and assigned duties. Handicapped persons will be given preference to other equally qualified applicants. DESY operates flexible work schemes. DESY is an equal opportunity, affirmative action employer and encourages applications from women. Vacant positions at DESY are in general open to part-time work. During each application procedure DESY will assess whether the post can be filled with part-time employees.

We are looking forward to your application via our application system: www.desy.de/onlineapplication

Human Resources Department | Code: APPO017/2020
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<http://www.desy.de/career>

Deadline for applications: 2020/10/19

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