Deutsches Elektronen-Synchrotron DESY
A Research Centre of the Helmholtz Association

For our location in Hamburg we are seeking:

PostDoc in FEL Physics / X-ray Optics

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.

European XFEL is the world's brightest operating X-ray laser, with unprecedented opportunity for scientific experiments in the photon sciences. It is currently heavily oversubscribed, making it important to efficiently and effectively tune this large scale facility for the individual photon users' needs. This requires an improved understanding of the effect of electron beam manipulation on photon beam properties delivered to samples. The goal of the project is to bridge the efforts of the electron beam dynamics and the x-ray propagation efforts by developing a simulation framework for photon pulse properties beyond pulse intensity . The successful candidate's primary location will be within the DESY FEL R&D group, with further working points at the SPB/SFX instrument and the FPH simulation group at XFEL.

The position

- Bridge the simulation efforts of electron beam dynamics, FEL generation and x-ray transport
- Develop a simulation framework for complete start-to-end XFEL simulations
- Simulate the effects of various electron parameters on photon beam properties, particularly the propagated wavefront

Requirements

- PhD in FEL physics, x-ray optics or equal qualification
- Additional experience in the respective other field is desirable
- Good command of English, German is a benefit
- Ability to communicate across scientific disciplines
- Experience with relevant simulation codes (Genesis, RWT, 0celot, elegant, ...)
- Experience with setting up cross disciplinary simulation frameworks desirable

For further information please contact Marc Guetg (marc.guetg@desy.de).

The position is limited to 2 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

› Apply now!

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Deadline for applications: Until the position is filled