



The European X-ray free-electron laser facility (XFEL) is a multi-national non-profit company. It will make available X-rays of unique quality for studies in physics, chemistry, life sciences, materials research and others. Located in the Hamburg area, Germany, it will comprise scientific instruments for a wide range of experimental techniques. Construction of the European XFEL is underway; its commissioning is scheduled for 2014. For our Theory Group we are looking for a

Physicist for calculations of photon fields (f/m)

The position

As a member of the Theory Group you will work in close interaction with the Group Leader assisting him in his tasks, including simulations of FEL and spontaneous radiation (SR) from the baseline European XFEL setup. SR simulations will be performed first and will require:

- cooperating in the development of a novel, well-documented software tool for SR studies accounting for the unique characteristics of the baseline European XFEL setup
- taking part in the creation and testing of particle tracker, electromagnetic solver, post-processor, as well as in the development and optimization of parallelization procedures
- integrating the different elements into a single package
- performing numerical and analytical studies on the characteristics of spontaneous radiation using existing software and, in the future, the newly developed software, partly in cooperation with other Work Packages

Requirements

- university degree in physics or equivalent qualification or experience
- background in electrodynamics and accelerator physics
- knowledge of radiation from relativistic electrons in undulators and of FEL physics
- background in statistical and Fourier optics is considered an asset
- experience in programming in C and C++, knowledge of Matlab
- ability to work in Linux/Windows environments

For additional information contact Gianluca Geloni (gianluca.geloni@xfel.eu)

Reference number: S-036

Application:

Please apply online via www.xfel.eu (job offer S-036) and provide a motivating cover letter next to a CV in English, your list of publications and references, respectively, in one single pdf-file.

Duration: This appointment is initially limited to 3 years.

Salary and benefits are similar to those of public service organisations in Germany. Handicapped persons will be given preference to other equally qualified applicants. The European XFEL GmbH is an equal opportunity and affirmative action employer and encourages applications from women. English is working language; knowledge in German is considered an asset. The European XFEL GmbH intends to achieve a widely international staff. Non-German candidates hired from abroad receive an international allowance.

■ ■ ■ **Deadline for application:** 28 February 2011