ACCELERATOR PHYSICS

Description:

This activity falls within the framework of work on high-intensity linear accelerators at ESS-Bilbao. It will involve calculations in both beam dynamics and electrodynamics. The successful candidate will be required to become familiar with the physics, mathematics and computational aspects of tracking a bunch of charged particles in an electric and magnetic field, with special emphasis on high-intensity beam issues (space charge, halo formation, loss minimisation). He or she will work on the optimisation of the layout of the Bilbao linac with respect to the choice of frequency, structure and beam performance, as well as on the application of this technology to the design of the ESS accelerator.

The work will also form part of the preparatory activities for the realization of the European Spallation Source.

Qualifications: Engineering degree or higher, in physics, with good knowledge of electromagnetism and electrodynamics. Sound computing experience. Previous experience of particle accelerators would be an advantage.

The following applies to the position:

Excellent oral and written English is essential; knowledge of French, German and other European languages would be an advantage.

Experience of working in a multi-cultural and multi-lingual environment in the framework of international collaborations will be appreciated.

Selected candidates may be required to travel to locations other than ISIS, SNS, ANL, FNAL, CERN and ESS (Lund) and to carry out research assignments of varying duration in these locations.

All positions will be subject to a two-year contract, which may be extended.

How to apply: Send a copy of your CV as well as a cover letter and some references if available to: Personnel Department, Att.: ESS-BILBAO Recruitment, direccion@essbilbao.com. Vacancy reference: BCAST 2010/14