Call for 2015 CSC Fellowship Applicants

## **Helmholtz Centre: GSI Helmholtzzentrum für Schwerionenforschung**

## **Department/Institute: Helmholtz Institute Jena**

## **Supervising scientist: Prof. Dr. Stephan Fritzsche**

## **University for Registration (for those looking for a dissertation): University of Jena**

## **Research Field: Atomic Theory in Extreme Fields**

**Position:** PhD Student **×** Sandwich PhD Student **□** Postdoc **x**

Applications are invited for PhD students as well as postdoctoral research scientists to

participate and supervise electronic structure and strong-field calculations for atoms and ions. The Atomic Theory Group of the Helmholtz-Institute Jena has a good experience in the relativistic and density matrix theory as well as in modelling the dynamics of multiple and highly charged-ions. A good understanding of the elementary processes is essential in order to describe the spectra from experiment and to resolve time-dependent mechanisms and phenomena:

Current topics of interest:

(1) Accurate atomic many-body theory and computations;

(2) Interactions of atoms with twisted light and electron beams;

(3) Strong-field ionization and recombination as well as HHG;

(4) Multiphoton processes in intense FEL radiation;

(5) Entanglement and tomography of atomic processes.

**Research Area:**

**Specific Requirements:**

To prepare a letter of support for your CSC fellowship application we need some information about you. Please submit the material as described on our webpage

<http://www.hi-jena.de/en/helmholtz_institute_jena/rs_aps/application/>

If your profile meets our requirements, we will inform you and provide you two letters of support signed by your future supervisor and the head of the Research School, respectively

The applicant should have a strong theoretical background related to at least one of the areas listed above. A proven research ability, demonstrated written and oral communication skills and the ability to work both, independently and cooperatively with others, are highly desirable.

Computer skills required include Fortran or C++, Maple, Windows and/or Linux.

Candidates will be considered until the position is filled. Further information can be obtained from <http://www.atomic-theory.uni-jena.de/>

**Work Place: Helmholtz Institute Jena, Germany**

**Earliest Start: 1 July 2015**

**Language Requirement: English**

**Email address: s.fritzsche@gsi.de**