Call for 2015 CSC Fellowship Applicants

## **Helmholtz Centre: GSI Helmholtz Centrie for Heavy Ion Research**

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

## **Supervising scientist: Dr. Sergey Rykovanov**

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

## **Research Field: Mechanisms of particle acceleration / controlling of particle beams**

**Position:** PhD Student **X** Sandwich PhD Student **□** Postdoc **□**

Plasma can sustain enormous amplitudes of electromagnetic fields and is a source of energetic particles - electrons and ions. Laser plasma accelerators (LPAs) of electrons are nowadays given great attention as they might be the next technology for particle accelerators towards compact electron-positron colliders, x-ray generators and medical tools. The same can be said about ion acceleration where one of the main goals is creating a compact cancer therapy device. The work will be theoretical.

**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 successful candidate will study different mechanisms of particle acceleration and especially ways of controlling the properties of particle beams - their energy spread and divergence. It is expected that the candidate will use multi-dimensional massively parallel particle-in-cell (PIC) simulations and contribute to the code and visualization development.

**Work Place: Jena/Germany**

**Earliest Start:** as soon as possibe

**Language Requirement:** English for work

**Email Address:** serge.rykovanov@gmail.com