Call for 2015 CSC Fellowship Applicants

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

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

## **Supervising scientist: Prof. Dr. Christian Spielmann**

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

## **Research Field: high power laser physics**

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

Laser physics

Interaction with ultrashort lasers pulses with matter

Generation of secondary radiation either in the XUV or hard x-ray range

Application of radiation for time-resolved x-ray spectroscopy or high resolution imaging

Work plan: optimization of an existing ultrafast laser for generating short wavelength radiation via high harmonic generation HHG; setup and optimizing of the HHG source to have narrowband radiation; planned experiments will focus on high resolution spectroscopy of highly charged ions in close cooperation with the Helmholtz Center GSI in Darmstadt; to verify the long time performance of the XUV source we will test it in n high spatial and temporal resolution x-ray microscopy experiment; samples range from nano-optical devices to biological specimens

**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

Knowledge in at least one of these areas is highly appreciated for this project

optics and lasers

ultrafast lasers

imaging

spectroscopy

vacuum technology

microscopy

**Work Place: Jena/Germany**

**Earliest Start:** as soon as possible

**Language Requirement:** English for work, knowledge in German helpful

**Email address:** Christian.spielmann@uni-jena.de