Call for 2015 CSC Fellowship Applicants

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

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

## **Supervising scientist: Prof. Dr. Thomas Stöhlker**

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

## **Research Field: X-Ray Imaging and Spectroscopy**

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

Compton Polarimetry for Hard-X-Rays

Applicants are invited to perform their PhD work on Compton polarimetry on hard x- and γ transitions by utilizing mutli-segmented, position-sensitive solid-state detectors. The goal is to determine the linear polarization properties of elementary atomic processes (e.g. Rayleigh scattering) to probe our understanding of atomic scattering processes in the rather unexplored regime of high photon energies (> 100 keV). The work comprises the commissioning of a novel segmented 2D-Si(Li) detector as well as experiments at synchrotron sources and heavy ion storage rings.

The works will be done at the Helmholtz Institute Jena.

**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 about one of these areas is highly appreciated:

Ion sources

Intense photon and x-ray sources

vacuum technology

photon and x-ray detectors

spectroscopy

photon imaging

atomic physics

**Work Place: Jena/Germany**

**Earliest Start:** as soon as possibe

**Language Requirement:** English for work

**Email Address:** t.stoehlker@uni-jena.de