



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

Open PhD position at FUB for CSC scholarship candidates 2016

Please note: the PhD position is only offered to Chinese PhD candidates for application in the framework of the FUB-CSC PhD Program.

<u>Department/Institute:</u>	Department of Physics/Institute of Experimental Physics
<u>Subject area:</u>	Solid State Physics/Magnetism
<u>Name of Supervisor:</u>	Prof. Dr. Wolfgang KUCH (Mr.)
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	Full-time
<u>Project title:</u>	Atomic-scale control of magnetic interface coupling

PhD Project description:

In a future spinelectronics the spin of electrons is used for information transport and processing instead of the charge, as in conventional electronics. Expected advantages are smaller integration, less power consumption, and higher operating speed. Many open questions in this respect are related to the interaction between different magnetic and nonmagnetic materials at their interface as well as the properties of such interfaces. In the project, the prospective PhD student will study fundamental structure - magnetism relations important for spinelectronics applications at the interface between single-crystalline materials, for example ultrathin antiferromagnetic and ferromagnetic layers, down to the atomic scale. The methods available for the study of well-defined structures, prepared in ultra-high vacuum, are low-energy electron diffraction (LEED), conventional and spin-polarized room-temperature scanning tunneling microscopy (STM) as well as in-situ magneto-optical Kerr effect (MOKE).

Language requirements:

PhD study in English is possible.

Academic requirements:

Master in physics with a master thesis in experimental physics.

Information of the professor or research group leader:

<http://www.physik.fu-berlin.de/einrichtungen/ag/ag-kuch/research>

Please note:

In a first step the complete application should submit to the Beijing Office for evaluation by January 4th, 2016. Please don't contact the professor before. He/She will get in contact with you after having received the complete application in January.