北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Seminar

Polarized and Unpolarized Neutron Scattering of Strongly-Correlated Electron Materials

Haifeng Li

Carlos III University of Madrid (UC3M)

Time: 4:00pm, August 26, 2015 (Wednesday)

时间：2015年8月26日 （周三）下午4:00

Venue: Room w563, Physics building, Peking University

地点：北京大学物理楼，西563会议室

Abstract

Magnetism, itinerant or localized, plays an important role in information storage and phenomena like superconductivity or magnetoresistance. The critical questions in a complete understanding of these interesting macroscopic properties are concerning the internal atomic and spin structures as well as the related microscopic dynamics: how do the building blocks move and what are their internal degrees of freedom? These herculean tasks can be accomplished by modern scattering techniques: neutron and synchrotron X-ray scattering. Especially, neutron scattering is a unique and powerful tool to solve magnetic structures and determine magnetic excitations and fluctuations. Here I will present some of my recent research results, mainly focusing on spin-polarized and unpolarized neutron scattering studies of magnetism in superconductors, intermetallic and frustrated compounds, etc.

About the speaker

Hai-Feng Li holds a Ph.D. in Materials Physics from Research Center Juelich and RWTH Aachen University (Germany, 2008). His doctoral thesis achieves the overall grade “Auszeichnung (Distinction)” and he was honored with the “Borchersplakette 2009” at RWTH. He had been working for the Max Planck Institute for Solid State Research (Germany, 2007-2008) and the Ames Laboratory (USA) as a postdoctoral research associate (2008-2010). Since 2011, he had been working for the Institute of Crystallography (@ RWTH) and Juelich Center for Neutron Science as a scientific coworker. Since 2015, he holds a Marie Curie-COFUND CONEX Fellow at UC3M, Spain. His scientific research centers around exploiting and synthesizing advanced materials and exploring their intriguing properties with modern neutron and X-ray scattering techniques.