



### Seminar

## Resonant Inelastic X-ray Scattering from correlated electron systems and unconventional High-Tc Superconductors

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**Time: 4:00pm, July 14th, 2016 (Thursday)**

**时间: 2016年7月14日 (周四) 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

Resonant inelastic X-ray scattering (RIXS) is a powerful bulk-sensitive photon-in / photon-out spectroscopic and scattering probe with elemental sensitivity for the electronic structure of condensed matter. It is a unique tool for studying low energy excitations in complex correlated systems, being directly sensitive to charge-, orbital-, spin-, and lattice-degrees of freedom. Dedicated instrumentation for RIXS with ultra-high resolution in energy and momentum spaces has become available thereby enabling characterization of collective excitations such as orbitons, magnons and phonons. In this presentation I will give a brief introduction to RIXS technique and focus on the application in correlated electron systems and unconventional high-Tc superconductors. The status of the next-generation RIXS facility at Diamond Light Source will be also updated during the talk.

### About the speaker

周克瑾, 2002年至2007年于中国科学院高能物理研究所X射线光学专业学习, 获博士学位, 之后在法国巴黎University Pierre et Marie Curie 大学、瑞士保罗谢尔研究所 (PSI) 从事博士后研究, 2012年获得英国国家钻石光源 (Diamond Light Source) 永久职位。目前为软X射线共振非弹性散射先进实验光束线的首席科学家, 负责该实验光束线和谱仪的设计、建设以及应用的开展。该先进实验装置于2012年开始设计建设并期望于2017年投入使用。发表论文包括Nature一篇, Nature Materials一篇, Nature Physics一篇, Nature Communication两篇, Angewandte Chemie一篇, Phys. Rev. Lett. 八篇等。