



Seminar

The nature of charge density waves in cuprate high- T_c superconductors: an X-ray perspective

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Time: 10:00am, July 20, 2017 (Thursday)

2017 7 20

10:00

Venue: Room W563, Physics Building, Peking University

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Abstract

Charge density wave (CDW) order has now been established in the low-temperature phase of essentially all families of underdoped cuprates sparking considerable debate about the relationship between the charge, spin and superconducting correlations and the universality or otherwise of the CDW properties of different cuprates. Benefit from the new generation of synchrotron light source and free electron laser, high brilliant and fully coherent X-ray scatterings are available to directly study the lattice, charge and spin correlation functions with unprecedented efficiency and accuracy. In the talk, I show how we use state-of-the-art X-ray scattering techniques, including resonant/non-resonant inelastic X-ray scattering (RIXS/IXS) and X-ray photon correlation spectroscopy (XPCS), to reveal the nature of charge density waves in underdoped cuprate.

About the speaker

2015

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RIXS IXS REXS XPCS

Nature communications,

Physical Review Letter, Physical Review X