



ICQM Weekly Seminar Series

“ARPES measurements of superconducting gap of iron-based superconductors – a path towards a unified paradigm of high-Tc superconductivity”



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Time: 4:00pm, June. 15, 2011 (Wednesday)

2011 6 15

4:00

**Venue: Room 607, Conference Room A , Science Building 5
607**

Abstract

In this talk, I will present our angle-resolved photoemission spectroscopy (ARPES) results on iron-based superconductors, mainly focus on high-resolution measurements of their superconducting gaps. All gaps observed can be well described simple local pairing functions, which can be fully determined by local antiferromagnetic (AF) exchange interactions and Fermi surface (FS) topology. We argue the same is true for the high-TcCuO-based superconductors, whose high critical temperatures and d-wave gap function are also the consequences of their large nearest-neighboring AF superexchange and FS topology. Thus we believe that strong local AF exchanges and collaborative FS topology is a possible unified paradigm of high-Tc superconductivity.

About the Speaker

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