

## HKIAS Distinguished Lecture Series on Physics

# Lattice, Charge, Spin and Orbital Aspects of the Iron Chalcogenide Superconductors

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Time : 3:00 pm - 4:30 pm

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## Abstract

Superconductivity, discovered slightly more than one hundred years ago in simple metals, not only renders electric charge conduction dissipationless but also represents a drastic macroscopic quantum coherent state of matter. Understanding of these early conventional superconductors, however, sets also a very chilly temperature domain for their occurrence. The discovery of high-temperature superconductivity in normally insulating cuprate ceramics has ushered in a new quest for unconventional superconductors which led to iron chalcogenides. Understanding this new family of high temperature superconductors demands the utilization of the whole weaponry of condensed matter physics.

## Biography

Wei Bao is a Chair Professor of Physics in CityU. He obtained his bachelor degree from Peking University, master degree from Institute of Theoretic Physics, CAS, and Ph.D. from the Johns Hopkins University. After doing research at AT&T Bell Labs as a consultant and at Brookhaven National Lab as a postdoctoral associate, he joined the technic staff at Los Alamos National Lab. in 1998 and accepted a national distinguished professorship in Renmin University of China in 2009. In addition to leading major research projects of NNSFC and 973 Program, he has led a major national research infrastructure project in building a suite of innovative cold neutron spectrometers in Beijing. He was elected a Fellow of American Physical Society in 2012 "for neutron scattering studies of the magnetic structure and spin dynamics of highly correlated electron systems".

