



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
COLLOQUIUM

Dance of the Seven Veils: Revealing the Electronic Ground State in Unconventional Superconductors with High Magnetic Fields

by



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Join ZOOM Meeting: <https://cuhk.zoom.us/j/93584347959>



ALL INTERESTED ARE WELCOME

Abstract

In order to understand the superconductor, one first needs to understand the resistive state from which superconductivity emerges. For unconventional superconductors, this is likely to be an electronic state distinct from that of normal metals and distinct from that which underpins conventional BCS theory. In order to gain access to the ground state of unconventional superconductors, however, one needs to peel away the veil of superconductivity, and in order to do that, very large magnetic fields are required. In this talk, I present a survey of my group's attempts at various high magnetic field facilities around the world to uncover novel (magneto) transport properties of different families of unconventional superconductors, including the copper- and iron-based superconductors, and to learn more about their anomalous metallic states.