THE CHINESE UNIVERSITY OF HONG KONG

Department of Physics

COLLOQUIUM

Evidence for Odd-parity, Spin-triplet Superconductivity in Sr_2RuO_4 and UTe_2

by

Professor Ying LIU (劉熒教授)
Department of Physics
Penn State University, USA

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Time: 10:00 - 11:00 a.m.
Place: L3, Science Centre, CUHK

ALL INTERESTED ARE WELCOME
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Abstract

A hallmark of unconventional superconductivity, which is associated with the symmetry properties of the superconducting order parameter, is the non-s-wave pairing. In this talk I will discuss the pairing symmetry properties of two unconventional superconductors, Sr2RuO4 and UTe2. The former is the only layered perovskite superconductor without the presence of Cu and one that has been studied for many years. The latter is a newly discovered heavy fermion superconductor. Both are promising candidates for demonstrating odd-party, spin-triplet superconductivity. I will review the evidence for unconventional pairing found in Sr2RuO4 and UTe2 and discuss our work on determining the symmetry properties of these two superconductors, focusing on evidence obtained from the phase-sensitive experiments based on the Josephson effect.

Enquiries: 3943 6303