THE CHINESE UNIVERSITY OF HONG KONG

Department of Physics

COLLOQUIUM

Tunneling into Emergent Topological Matter

by

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Date: December 2, 2020 (Wednesday)
Time: 10:00 - 11:00 a.m.
Join ZOOM Meeting: https://qrgo.page.link/LCcGT

ALL INTERESTED ARE WELCOME
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Abstract

The search for topological matter is evolving towards strongly interacting systems including magnets and superconductors, where novel effects emerge from the quantum level interplay between geometry, correlation, and topology. Equipped with unprecedented spatial resolution, high precision electronic detection and magnetic tunability, scanning tunneling microscopy has become a powerful tool to probe and discover the emergent topological matter. In this talk, I will discuss the proof-of-principle methodology applied to study the quantum topology in this discipline, with particular attention to studies performed under a tunable vector magnetic field, which is a relatively new direction of recent focus. I then project the future possibilities for tunnelling methods in providing new insights into topological matter.

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