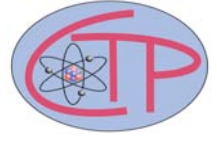




NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics



Chiral Bose and Fermi phases in orbital optical lattices

Presented by:

Prof. W. Vincent Liu

**University of Pittsburgh
Pittsburgh, PA**

**Thursday, December 03 at 12:00 PM
Namm, Room 823**

Abstract

When interacting ultracold atoms are loaded into the metastable but long lived higher orbital excited bands of an optical lattice, would it be possible for the atoms to exhibit conceptually novel phases that have no prior analogue from the well-known past condensed matter models? In this talk, I will report some of our recent findings when exploiting symmetries, quantum phases, and topology beyond natural conditions in such artificial quantum orbital systems.

Light refreshments will be served.