



清华大学高等研究院

Institute for Advanced Study, Tsinghua University

系列学术报告

Speaker: **Tin-Lun (Jason) Ho**
(*Ohio-State / IAS, Tsinghua*)

Lectures on **Twisted Bilayer Graphene and Related Twisted 2D Materials**

Time: **3:30-4:30pm**
May 20, 22, 24, 2019

Venue: **Conference Hall 322, Science Building, Tsinghua University**

Lecture 1

The phenomenology and the fundamentals of twisted bilayer graphene

Lecture 2

Accounting for the universal features of TBG and various theoretical approaches

Lecture 3

Other twisted bilayer materials, many-body physics, and their simulation with cold atoms

The recently discovered new insulating and superconducting phases in twisted bilayer graphene have generated huge amount of activities in condensed matter research. In these lectures, I shall discuss the whole host of puzzling and surprising phenomena in twisted bilayer graphene, the associating fundamental issues that have significance beyond graphene physics, and a set of rules that describes these puzzling behaviors. We shall also discuss other important classes of twisted bilayer systems that are very likely to have many unusual many-body phenomena. Finally, we shall point out that many key questions in twisted bilayer systems can be answered through quantum simulation with cold atoms.