Cancelled

JITCP Seminar

THE UNIVERSITY OF HONG KONG
HKU-UCAS JOINT INSTITUTE OF THEORETICAL AND COMPUTATIONAL PHYSICS
HK INSTITUTE OF QUANTUM SCIENCE & TECHONOLOGY
[Tuesday afternoon, 1:30 pm, In Person]

Trivial Insulating Phase at ν=3 in Twisted Bilayer Graphene

Prof. Jian KANG

School of Physical Science and Technology, ShanghaiTech University, China

In this talk, I will discuss recent theoretical progress on the insulating phase at ν=3 discovered in twisted bilayer graphene. While experiments discovered this phase is topologically trivial, most theoretical calculations obtain either the metallic state with nodes or the quantum anomalous Hall state that is gapped but topologically nontrivial. In this talk, I will present both the analytical and numerical evidence for the stripe phase at ν=3, and discuss how the nodes can be annihilated by braiding and lead to a trivial insulating state.

1. J Kang and O Vafek, Phys. Rev. Lett., 122, 246401 (2019).
2. J Kang and O Vafek, Phys. Rev. B, 102, 035161 (2020).
3. F Xie, J Kang, BA Bernevig, O Vafek, and N Regnault, Phys. Rev. B 107, 075156 (2023).

In Person Seminar

~~**Tuesday, March 28, 2023, 1:30 pm**~~

~~KB132, 1/F, Knowles Building, The University of Hong Kong~~

Host: Professor Gang CHEN, The University of Hong Kong

Sponsored by HKU-UCAS Joint Institute of Theoretical and Computational Physics, The University of Hong Kong and HK Institute of Quantum Science & Technology

Phone: 28592360, Fax: 25599152. Anyone interested is welcome to attend.

Venue updated on Mar 27