



Contribution ID: 291

Type: **Talk**

【106】 Understanding pairing mechanism in magic angle twisted trilayer graphene

Tuesday 5 September 2023 15:30 (15 minutes)

Flat bands in twisted graphene systems offers plethora of strongly correlated states, among these, correlated insulator, superconductor and chern insulator are to name of few. Twisted trilayer graphene has shown robust superconductivity which drastically deviates from conventional weak-coupling BCS type superconductivity. In particular, twisted trilayer graphene may even host pragmatic example of strong coupling superconductivity –BEC type superconductivity. A full understanding of such superconductivity still needs more experimental works.

In this talk, I will present our transport data of magic angle twisted trilayer graphene and highlight its unconventional nature.

Theoretical Work

Author: Mr ZHOU, Zekang (Laboratory of Quantum Physics (LQP), Institute of Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), 1015 Lausanne, Switzerland)

Co-authors: Mr JIANG, Jin (Laboratory of Quantum Physics (LQP), Institute of Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), 1015 Lausanne, Switzerland); Prof. WATANABE, Kenji (Research Center for Functional Materials, National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan); Prof. TANIGUCHI, Takashi (International Center for Materials Nanoarchitectonics, National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan); Prof. BANERJEE, Mitali (Laboratory of Quantum Physics (LQP), Institute of Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), 1015 Lausanne, Switzerland)

Presenter: Mr ZHOU, Zekang (Laboratory of Quantum Physics (LQP), Institute of Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), 1015 Lausanne, Switzerland)

Session Classification: Condensed Matter Physics (KOND)

Track Classification: Condensed Matter Physics (KOND)