Semiconductor moiré materials

Kin Fai Mak Cornell University, Ithaca, USA km627@cornell.edu

The discovery of moiré materials has enabled condensed matter experimentation in new regimes. In this talk, I will discuss the general features of moiré materials, with a particular focus on the interplay between strong electronic correlations and non-trivial band topology in semiconductor moiré systems. Specifically, I will discuss how we can explore Hubbard physics and Kane-Mele-Hubbard physics in these materials.