

Floquet Topology: Fast, Slow, and Across

Babak Seradjeh
Indiana University
babaks@indiana.edu

A periodically-driven quantum system can exhibit essentially non-equilibrium topological phases. Transitions between these topological phases can be tuned by drive parameters, such as the frequency, the amplitude, or the shape of the drive. In this talk, I will discuss some of our recent results regarding Floquet topology for fast and slow drives. This includes experimental signatures of Floquet topological phases in the noise spectrum, as well as a remarkable random walk process resulting in universal fluctuations of topological invariants at low frequency. I will conclude with the outlook for realizing Floquet topological phases, future directions of this area of research, and the exciting connections it makes across condensed matter, atomic and optical, and statistical physics of quantum systems.