



北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Seminar

Floquet phases of matter: time crystals and beyond

Dr. Dominic Else

Massachusetts Institute of Technology

Time: 4:00pm, July 3, 2018 (Tuesday)

时间: 2018年07月3日 (周二) 下午4:00

Venue: Room W563, Physics building, Peking University

地点: 北京大学物理楼, 西563会议室

Abstract

Periodically driven (Floquet) systems can display entirely new many-body phases of matter that have no analog in stationary systems. One such phase is the Floquet time crystal, which spontaneously breaks a discrete time translation symmetry. In this talk, I will survey the physics of these new phases of matter. I explain how they can be stabilized either through strong quenched disorder (many-body localization), or alternatively in clean systems in a "prethermal" regime which persists until a time that is exponentially long in a small parameter.

About the speaker

Dr. Dominic Else obtain his Phd degree from University of California at Santa Barbara(UCSB) in 2018, supervised by Prof. Chetan Nayak. Now, he is moving to Massachusetts Institute of Technology (MIT) as a postdoctoral fellow. Dr. Else focus on general theoretical framework to classify topological phases. In particular, his works on time spontaneous symmetry breaking(TTSB) and pre-thermalization phenomenon have attracted lots of attentions recently.