

Department of Physics, National Central University



Colloquium

Emergent phenomena in constrained quantum many-body systems



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Date: 2023/10/31 (Tue) Venue: S4-625

Time: 14:00-16:00

Abstract

Emergent phenomena serve as the foundation of modern condensed matter physics. Simultaneously, the understanding of quantum phenomena is transitioning from the quantization of observables to the concept of entanglement — an intrinsic structure that distinguishes quantum theories from classical ones. In this discussion, we will explore constrained quantum systems and their connection to nontrivial entanglement patterns. Starting from this point, we will delve into the realm of emergent phenomena in constrained quantum many-body systems, both in and out of equilibrium. Our objective is to provide a comprehensive exploration of the intriguing relationship between constraints and quantum entanglement within this significant research area.