

Seminar Talk

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“Unifying the Quantum and Classical Floquet Perturbation Theories”

Abstract

I will introduce a new framework for analysing periodically driven out-of-equilibrium states in many-body systems, covering both quantum and classical limits. We tackle the limitations of the rotating-wave approximation (RWA) when applied to periodically driven oscillators, which fails at finite detuning, disrupting the transition from quantum to classical descriptions. By adopting an alternative operator basis, we successfully integrate off-resonant driving with the RWA. We explore how this approach unifies the classical and quantum Floquet perturbation theories and what the implications are for dissipative quantum systems.

Wednesday | 11.06.2025 | 11:00am

2S16 | ICT building