

OpenQMBP2023: New perspectives in the out-of-equilibrium dynamics of open many-body quantum systems



ID de Contribution: 22

Type: Non spécifié

Trapped-ion quantum state and process engineering using dissipation

jeudi 22 juin 2023 11:00 (40 minutes)

I will discuss a number of results on quantum state engineering and dissipative control with trapped ions. Primarily this will relate to oscillator state control, where the engineering of open-system dynamics has allowed us to create a range of quantum steady-states, perform quantum error-correction using the Gottesmann-Kitaev-Preskill code, and to observe phase transitions in systems with competing dissipation. Furthermore I will outline how these methods might be extended to multi-partite systems, and present first results along these lines.

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