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Title:
Flat bands and inseparable 2D time crystal lattices on the Möbius strip.

Abstract:
Discrete time crystals, alike ordinary space crystals, can host condensed matter physics. In this talk I will present how to create a system with properties of a 2D time crystal and how to engineer inseparable 2D time crystal lattices on the Möbius strip. Specifically, I will show a simple realization of a flat band many body Hamiltonian with tunable parameters, which provides versatility supporting a unique platform for quantum simulations.