



Creating unconventional states in quantum solids by phononics

The unusual phase diagrams of solid-state quantum materials arise from the intense interplay of the spins, charges, and lattice. These systems are prototypical materials for studying complex interactions and encouraging candidates for future functionalities. In this talk, I will show how large-amplitude selective excitation of phonons by light create non-equilibrium states on ultrafast timescales. In addition, I will present theoretical methods capable of predicting and describing these phase changes based on first principle techniques.

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