

Eigenstate metamorphosis in the Bose Hubbard model

We will discuss the metamorphosis of the spectrum and of the eigenstates of the Bose-Hubbard Hamiltonian at the transition from integrability to (quantum) chaos, addressing universal as well as distinctive properties in the chaotic domain.

We will further contrast the spectral information with dynamical features directly accessible in cold atom experiments, with special attention to signatures of the system's many-particle character.

Author: BUCHLEITNER, Andreas (Albert-Ludwigs-Universitaet Freiburg)

Co-authors: RODRIGUEZ, Alberto (Universidad de Salamanca); CARNIO, Edoardo (Albert-Ludwigs-Universitaet Freiburg); BRUNNER, Eric (Albert-Ludwigs-Universitaet Freiburg); DUFOUR, Gabriel (Albert-Ludwigs-Universitaet Freiburg); PAUSCH, Lukas (Albert-Ludwigs-Universitaet Freiburg)

Presenter: BUCHLEITNER, Andreas (Albert-Ludwigs-Universitaet Freiburg)

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