

Quasiballistic and quasilocalized Schrödinger operators are generic

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Abstract

We derive sufficient conditions for the presence of generic sets of discrete Schrödinger operators on $l^2(\mathbb{Z}^d)$, $d \geq 1$, with both quasilocalized and quasiballistic dynamics, and apply them to three operator spaces, that is, with uniformly bounded, analytic quasiperiodic and unbounded potentials. It is concluded, for these spaces, that the dynamics is typically (from the topological viewpoint) nontrivial, whereas quantum intermittency is exceptional.