Monotonicity of the set of zeros of the Lyapunov exponent with respect to shift embeddings

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Abstract

We consider the discrete Schrödinger operators with potentials whose values are read along the orbits of a shift of finite type. We study a certain subset of the collection of energies at which the Lyapunov exponent is zero and prove monotonicity of this set with respect to the shift embeddings. Then we introduce a certain function $\mathcal{J}(A, \mu)$ determined by the position of these zeros and prove monotonicity of $\mathcal{J}(A, \mu)$ with respect to embeddings.

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