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The standard map, and discrete Schrödinger operators

Abstract:

The standard map is a measure-preserving map of the torus; the dynamics generated by it is the subject of numerous conjectures. One of the approaches to the standard map leads to the study of a certain Schrödinger operator. I will start with a brief introduction to discrete Schrödinger operators, and present two results: one pertaining to a general class of discrete Schrödinger operators, and another one -- pertaining to the operator arising from the standard map. Time permitting, I will explain some of the elements of the proof. [Based on joint work with T. Spencer]