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Lindblad master equation approach to the topological phase transition in the disordered Su-Schrieffer-Heeger model

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We use the Lindblad equation method to investigate the onset of a mobility edge and the topological phase transition in the disordered Su-Schrieffer-Heeger chain connected to two external baths in the large bias limit. From the scaling properties of the nonequilibrium stationary current flowing across the system, we recover the localization/delocalization in the disordered chain.
To probe the topological phase transition in the presence of disorder, we use the even-odd differential occupancy as a mean to discriminate topologically trivial from topologically nontrival phases in the out-of-equilibirum system.

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