

Title: Generic fast diffusion for some non-convex integrable Hamiltonians

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Abstract: In this talk, we will consider small perturbations of a class of non-convex integrable Hamiltonians. For two degrees of freedom, we will prove a result of diffusion for an open and dense set of perturbations, with an optimal time of diffusion which grows linearly with respect to the inverse of the size of the perturbation.

This is a first step of an ongoing work with V. Kaloshin, where we plan to study a more general class of non-convex Hamiltonians with more degrees of freedom.