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TITLE : Tonelli Hamiltonians with no conjugate points and C^0 -integrability

Abstract: Fifteen years ago, Burago and Ivanov proved Hopf conjecture: any Riemannian metric that is defined on a torus and has no conjugate points is flat. We ask the same question for Tonelli Hamiltonians, that generalize Riemannian metrics. We will prove that the phase space is foliated by invariant Lipschitz Lagrangian tori and give some results about the dynamics. In particular, we will prove that the topological entropy vanishes.

This is a joint work with M. Arcostanzo, P. Bolle and M. Zavidovique