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Oberseminar Dynamische Systeme

Hofer's geometry and entropy

Dienstag, 17. November 2020
16:15 Uhr – per Zoom

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(Aachen)

Abstract:

A central object in the study of Hamiltonian diffeomorphisms on a symplectic manifold is Hofer's metric, a bi-invariant metric on the group of Hamiltonian diffeomorphisms that displays rigidity features that are special for those diffeomorphisms. The geometry of this metric has been thoroughly studied since its discovery by Hofer and his work in the early 90's and a central theme is to link Hofer's geometry to dynamical properties of the underlying maps. In my talk I will discuss some conditions under which dynamical complexity persists under bounded perturbations in Hofer's geometry. This leads to stable lower bounds on topological entropy and on orbit growth in various situations. This talk is partly based on joint work with Arnon Chor.

Guests are very welcome!