RUHR-UNIVERSITÄT BOCHUM

FAKULTÄT FÜR MATHEMATIK

RUB

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Oberseminar Dynamische Systeme

Topological entropy and Floer theory

Dienstag, 05. Juli 2022
16:15 Uhr – Raum IA 1/181

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(Paris)

Abstract:

In this talk I will introduce barcode entropy and discuss its connections to topological entropy. The barcode entropy is a Floer-theoretic invariant of a compactly supported Hamiltonian diffeomorphism, measuring, roughly speaking, the exponential growth under iterations of the number of not-too-short bars in the barcode of the Floer complex. The topological entropy bounds from above the barcode entropy and, conversely, the barcode entropy is bounded from below by the topological entropy of any hyperbolic locally maximal invariant set. As a consequence, the two quantities are equal for Hamiltonian diffeomorphisms of closed surfaces. The talk is based on a joint work with Viktor Ginzburg and Basak Gurel.

Guests are very welcome!