

Unfolding internal homoclinic tangencies: topological entropy

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abstract:

We consider the unfolding, through a one-parameter family, of a homoclinic tangency internal to a horseshoe with small fractal dimension. We prove that the topological entropy, restricted to a special set of parameters, is a monotone function. This formalizes the intuitive idea that the loss of transversal homoclinic intersections implies the decreasing of the topological entropy.

This is a joint work with André de Carvalho, Lorenzo Díaz and Karla Díaz-Ordaz.