Hyberbolicity versus homoclinic bifurcation.

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Abstract

We show that any $f \in Diff^1(M^n)$ can be C^1approximated by other diffeomorphisms exhibiting a homoclinic bifurcation (tangencies or heterodimensional cycle) or by one which is essentially hyperbolic (it has a finite number of hyperbolic attractors with open and dense basin of attraction). This is a joint work with Sylvain Crovisier.