PROGRAMA DE VERÃO 2012
SISTEMAS DINÂMICOS

Braid equivalence in the Hénon family

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We consider the bifurcation diagram for the Hénon family $F_{a,b}(x,y)=(a - x^2 - by, x)$, focusing on the existence of sinks and how they deform with parameters. This leads us to consider which braid equivalences occur within the Hénon family. Roughly speaking, two different periodic orbits for two different maps are braid equivalent if there is a deformation in parameter space which continues one periodic orbit into the other without altering the period along the deformation. We will describe a mechanism that produces a large number of braid equivalences, how such equivalences are realised in the Hénon family and what bifurcations must be undergone during these deformations. We will discuss some conjectures, numerical observations and, if time permits, relations to renormalisation of Hénon maps.

Data: 20 de Janeiro, às 16:00
Local: Auditório Antônio Gilioli (247/262 -- A)