



Seminário de Sistemas Dinâmicos da UFF

GENERALIZED HÉNON-DEVANEY MAPS OF THE PLANE

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Local: Sala 407, Bloco H, Campus do Gragoatá.

Resumo

Hénon's Generating Families and his approach to the Three-Body Problem has been studied exhaustively by different areas. Recently at IMPA, S. Muñoz proved that a two-parameter family derived by these Generating Families is robust transitive. The object I worked with is the map that appears when we look at the asymptotic behavior of the Three-Body Problem as presented by Hénon which is known today as the *Hénon-Devaney map*

$$H : \mathbb{R}^2 \setminus \{y = 0\} \rightarrow \mathbb{R}^2$$
$$(x, y) \mapsto \left(x + \frac{1}{y}, y - \frac{1}{y} - x \right)$$

which preserves the Lebesgue measure in the whole plane. We consider a two-parameter family that generalizes this map and look for topological, invariant transversal foliations and ergodic properties.