



Seminário de Sistemas Dinâmicos da UFF

FROM LORENZ TO LORENZ: A DIFFERENT ATTRACTOR

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Hora: 16h

Local: Sala 407, 4º Andar, Bloco H, Campus do Gragoatá.

Resumo

We construct a family of flows indexed by parameters in \mathbb{T}^2 which contains a Lorenz-like singularity. For each of them, we provide a topological equivalence characterization and a proof of the existence of invariant stable foliation. We use these results to deduce the existence of a singular-hyperbolic attractor for each member of this family of flows and to classify all the bifurcation parameters μ and the associated attractor. We concluded the existence of a set $\mathcal{V} \subset \mathbb{T}^2$ with non empty interior such that the maximal invariant set Λ_μ contains a Lorenz attractor and a Smale horseshoe for each $\mu \in \mathcal{V}$.