

Seminário de sistemas dinâmicos e estocásticos

Departamento de Matemática - IMECC - UNICAMP

An example of a robust non-uniformly hyperbolic symplectic map which is not Anosov

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Resumo:

A celebrated result of Mañé-Bochi establishes that for a C^1 generic surface diffeomorphism either all its Lyapunov exponents are zero or is completely hyperbolic (Anosov). This theorem was generalized to arbitrary dimensions to symplectic diffeomorphisms by Bochi-Viana: generically a symplectic diffeomorphism is Anosov or two of its Lyapunov exponent vanish. In this talk we present a surprising counterexample to the later result in the C^2 category, namely we present a symplectic diffeomorphism of the 4-torus for which all its Lyapunov exponents are non-zero, although it cannot be C^2 approximated by any Anosov diffeomorphism. Time permitting, I'll say something about the ergodicity of this type of systems.

Data: Sexta-feira, 25 de abril de 2014, 14:00hs.

Local: Sala 321 do IMECC.

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