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SEMINÁRIO DE SISTEMAS DINÂMICOS

Dia 15 de Abril (sexta-feira), às 14H00, na sala 6.2.33

Non-differentiable irrational invariant curves and a question of John Mather

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Abstract:

In the 20's Birkhoff proved that any invariant curve of a symplectic twist map of the annulus which is not homotopic to a point (essential curve) is the graph of a Lipschitz function. An open question of Mather asks for an example of a C^r symplectic twist map with an invariant essential curve that is not C^1 and that contains no periodic point. In this talk we will discuss the construction of such example when $r = 1$. The example is due to Marie-Claude Arnaud. The cases $r > 1$ and $r = \omega$ remain open.

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