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SEMINARIO

SISTEMAS DINAMICOS DE SANTIAGO

TIME (Monday 9th July) 4:30 pm - 5:30 pm
LOCATION Sala 2, PUC

SPEAKER: Anibal Velozo

TITLE: Analogies between the geodesic flow on a negatively curved manifold and countable Markov shifts

ABSTRACT: By the work of Bowen and Ratner it is known that the geodesic flow on a compact negatively curved manifold can be modeled as a suspension flow over a subshift of finite type. Unfortunately, a symbolic representation is not available if the manifold is non-compact. In this talk I will briefly explain some recent developments on the study of the thermodynamic formalism of the geodesic flow on non-compact negatively curved manifolds. Surprisingly some of the methods used to understand the geodesic flow have consequences to the theory of countable Markov shifts. I will explain such consequences, as well as some open problems.

TIME (Monday 9th July) 5:30 pm - 6:30 pm
LOCATION Sala 2, PUC

SPEAKER: Umberto Hryniewicz
TITLE: Morse theory for the action functional and a Poincare-Birkhoff theorem for flows

ABSTRACT: The goal of this talk is twofold. Firstly I would like to explain how pseudo-holomorphic curves can be used to study Morse theory of the action functional from classical mechanics. Then I will move to applications, focusing on a generalization of the Poincare-Birkhoff theorem for Reeb flows on the three-sphere.

Lugar: Av. Vicuña Mackenna 4860, Macul, La Florida, Región Metropolitana, Sala 2.

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