



www.mat.puc-rio.br/edai

81° EDAÍ 26 de Abril de 2019

DMAT-PUC-Rio, Sala de Reuniões do Decanato do CTC (12 andar prédio Leme)

Matinê: 14h30 – 15h30

Billiards and Symplectic Geometry

Vinicius Ramos (IMPA)

In this talk, I will discuss the relations between billiard dynamics and the problem of symplectic embeddings. I will explain how the integrability of billiards in the disk allows one to understand the symplectic topology of the bidisk using the classical Arnold-Liouville theorem.

Palestra I: 15h40 – 16h40

Noise induced order in the Matsumoto-Tsuda model

Isaia Nisoli (UFRJ)

In 1980, studying experimental data obtained from the Belosouv-Zabotinsky chemical reaction, Matsumoto and Tsuda introduced a model: a random dynamical system consisting of a one-dimensional unimodal map with uniform additive noise.

Through numerical simulations, varying the amplitude of the noise, Matsumoto and Tsuda conjectured that this maps presents a phenomenon they called Noise Induced Order, i.e., for small noise amplitudes the Lyapunov exponent of the stationary measure is positive and for big noise sizes the Lyapunov exponent is positive.

In this talk I will present a joint work with Galatolo and Monge, which proves this conjecture.

Café: 16h40 – 17h10

Palestra II: 17h10 – 18h10

Some Algebraic Aspects of Dynamics on Cantor Set

Maryam Hosseini (IPM, Teerã, Irã)

By the Jewett-Krieger theorems every ergodic system on a Lebesgue space is isomorphic to (or realized by) a minimal ergodic system on Cantor set. So classifying Cantor minimal systems plays central role for such realizations. Classification of Cantor minimal systems up to Orbit Equivalence has interested some mathematicians in the recent decades and was successfully done for uniquely ergodic systems by Giordano-Putnam-Skau in 1995. The main useful object in these studies is Dimension Group which has made connections between Cantor minimal systems and operator algebra. In this talk after reviewing some basic stuff, I try to show that how this algebraic tools help us to know about spectral properties of Cantor minimal systems and so to a better understanding of mixing properties of these systems. This presentation is based on two recent joint works with Thierry Giordano and David Handelman in Ottawa and Fabien Durand and Samuel Petite in Amiens

Confraternização: Bar Hipódromo, 19h00 – ∞



Para receber informações sobre e divulgar eventos de Sistemas Dinâmicos na região fluminense, inscreva-se no mailinglist:
<http://groups.google.com/group/DinamiCarioca>

