EDAÍ

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32º EDAÍ 6 de julho de 2012

Sala L856, Depto. de Matemática, Edifício Cardeal Leme, PUC–Rio.

Matinê: 14h30 – 15h30

Thue-Morse dynamical system

Christian Mauduit (Institut de Mathématiques de Luminy)

We give an introduction to symbolic dynamical systems by exploring the paradigmatic example of the Thue-Morse sequence, introduced by several mathematicians in different contexts since the 19th century, and defined as the the limit in $\{0,1\}^{\mathbb{N}}$ of the sequence of finite words $(T_k)_{k\in\mathbb{N}}$ defined by the recursion $T_0 = 0$, $T'_0 = 1$ and $T_{k+1} = T_k T'_k$, $T'_{k+1} = T'_k T_k$ for any non negative integer k.

References:

- M. Queffelec, Substitution Dynamical Systems - Spectral Analysis, Lecture Notes in Mathematics 1294, Springer.
- N. Pytheas Fogg, Substitutions in Dynamics, Arithmetics, and Combinatorics, Lecture Notes in Mathematics 1794, Springer.

Palestra 1: 15h45 – 16h45

Pesin's Formula for C^1 diffeomorphisms with Dominated Splitting

Eleonora Catsigeras (Universidad de la República)

We consider C^1 diffeomorphisms with dominated splitting $E \oplus F$ that are topologically expansive and preserve no measure absolutely continuous with respect to Lebesgue. We characterize a never empty set of invariant probabilities (the SRB-like measures), by means of a quasi-physical property, for which the metric entropy is bounded from below by the integral of the sum of the Lyapounov exponents of $df|_F$. Joining this result with Ruelle's inequality, we conclude that if all the positive Lyapunov exponents are included in those of $df|_F$, and these latter are all non negative, then any SRB-like measure satisfies the Pesin's formula of the entropy.

This is a joint work with M. Cerminara and H. Enrich.

Café: 16h45 – 17h15

Palestra 2: 17h15 – 18h15

Sobre expansividade (positiva) e medidas expansivas

Alexander Arbieto (UFRJ)

Apresentaremos conseqüências da expansividade (positiva). Também introduziremos o conceito de medidas expansivas e apresentaremos algumas conseqüências deste conceito.

Esta última parte é um trabalho em conjunto com Carlos Morales.

Confraternização: 19h00 – ∞

Garota da Gávea

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http://groups.google.com/group/DinamiCarioca