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64° EDAÍ 9 de Setembro de 2016
Auditório do bloco G, Campus do Gragoatá, UFF

Palestra 1: 14h30 – 15h30

Topological methods in ergodic theory: old and new

Paulo Varandas (UFBA)

The use of topological methods (as shadowing or specification) in dynamics has been much successful either in the characterization of uniformly hyperbolicity or as important tools to describe the thermodynamic formalism, the multifractal analysis, or large deviations for uniformly hyperbolic dynamical systems. In the present talk I will report on (weaker) gluing orbit properties, a comparison between these with the original notions of specification and how these can be used to prove strong recurrence and describe the space of invariant measures. If time permits we will point out the key differences between discrete and continuous time dynamics and some consequences for other semigroup actions.

Palestra 2: 15h45 – 16h45

Princípio dos grandes desvios para medidas de equilíbrio e seleção de sub-ação

Jairo Mengue (UFRGS)

Dado $X = \{1, \dots, d\}^{\mathbb{N}}$ com a dinâmica do shift e uma função Lipschitz contínua $f : X \rightarrow \mathbb{R}$, para cada $\beta > 0$, consideramos a medida de equilíbrio μ_β , associada a função βf , e a auto-função principal h_β do operador de Ruelle $L_{\beta f} : C(X) \rightarrow C(X)$, definido por $(L_{\beta f} w)(x) = \sum_{a \in \{1, \dots, d\}} e^{\beta f(ax)} w(ax)$. Pretendemos apresentar algumas relações entre o estudo do princípio dos grandes desvios para a família de medidas de equilíbrio $(\mu_\beta)_{\beta > 0}$ e o problema da seleção de sub-ação, isto é, da existência do limite uniforme das funções $\frac{1}{\beta} \log(h_\beta)$, quando $\beta \rightarrow \infty$.

Café: 16h45 – 17h15

Palestra 3: 17h15 – 18h15

Generalized Weierstrass functions, linear response problem and central limit theorem.

Daniel Smania (ICMC-USP)

Let f be a smooth expanding map of the circle and v be a smooth real function of the circle. Consider the twisted cohomological equation $v(x) = A(f(x)) - Df(x)A(x)$ which has a unique bounded solution A . We prove that A is either smooth or nowhere differentiable, and if A is nowhere differentiable then the newton quotients of A , after an appropriated normalization, converges in distribution to the normal distribution, with respect to the unique absolutely continuous invariant probability of f . We also show that a similar phenomenon occurs when we study the linear response problem for piecewise expanding unimodal maps. This is a joint work with Amanda de Lima, based on her Ph. D. Thesis at ICMC-USP.

Confraternização: 19h00 – ∞ - Chopp na Cantareira

Próximos EDAs: 07/10 na UFRJ, 4/11 na PUC e 2/12 na UFF.



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