

Seminário de sistemas dinâmicos e estocásticos

Departamento de Matemática - IMECC - UNICAMP

14:00hs - 14:50: **Tomás Caraballo** (Universidad de Sevilla): **Deterministic vs Random Dynamics.**

Abstract: The aim of this talk is to present some features concerning the effects of noise on the asymptotic behaviour of dynamical systems. First, we will recall some results on the stabilizing and destabilizing effects which the appearance of different kinds of noise (e.g. Ito or Stratonovich) may have on the stationary solutions (equilibria) of deterministic dynamical systems. Second, we will exhibit some other results which show the analogies and differences that the appearance of different kind of noise may have on the global asymptotic behaviour of deterministic dynamical systems, emphasizing that the theory of random dynamical systems is a suitable tool for this analysis, especially for the existence of attracting sets which may be responsible for its strange or not so strange dynamics

14:50hs - 15:40: **Christian Olivera** (Imecc - Unicamp): **Regularization by noise of Linear and Semilinear PDEs.**

Abstract: We show that linear and semilinear PDEs by stochastic perturbation are well-posedness meanwhile uniqueness may fail for the deterministic PDEs.

15:40hs - 16:00hs: **Coffee Break.**

16:00hs - 16:40: **Bjorn Schmalfuss** (Universität Jena): **Random dynamical systems and fractional integration.**

Abstract: We introduce fractional noise and discuss a method to define stochastic integral for such a noise. In addition, we explain some ideas how to obtain random dynamical systems by differential equations driven by this kind of noise. Finally we discuss some objects like attractors or invariant manifolds describing the qualitative behavior of these systems.

Data: Segunda-feira, 10 de fevereiro de 2014.

Local: Sala 221 do IMECC.

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