

UNICAMP – IMECC  
Departamento de Matemática

## Seminário de Sistemas Dinâmicos e Estocásticos

**Expositor:** C. Kawan (Universität Augsburg)

**Título:** Lower bounds for invariance entropy

**Data:** Sexta-feira, 20 de agosto de 2010, 13h30min

**Local:** Sala 321 do IMECC

**Resumo.** Invariance entropy for continuous-time control systems measures how often open-loop control functions have to be updated in order to achieve invariance of a compact controlled invariant subset of the state space. It can be shown that this quantity coincides with the minimal data rate in a feedback loop necessary to render the corresponding set invariant by a causal coding a control law. In this talk, we present a method to obtain lower bounds for invariance entropy, combining techniques from the theory of escape rates and from dimension theory for dynamical systems.

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