UNICAMP – IMECC
Departamento de Matemática

Seminário de Sistemas Dinâmicos e Estocásticos

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Título: Equilibrium fluctuations in interacting particle systems

Data: Sexta-feira, 24 de maio de 2013, 13h30min

Local: Sala 321 do IMECC

Resumo. After some introductory considerations, I will talk about an problem solved by Farfan J., Simas A. and I self. Fix a function $W : \mathbb{R}^d \to \mathbb{R}$ such that $W(x_1, \ldots, x_d) = \sum_{k=1}^{d} W_k(x_k)$, where $d \geq 1$, and each function $W_k : \mathbb{R} \to \mathbb{R}$ is strictly increasing, right continuous with left limits. We prove the equilibrium fluctuations for exclusion processes with conductances, induced by W, in random environments, when the system starts from an equilibrium measure. The asymptotic behavior of the empirical distribution is governed by the unique solution of a stochastic differential equation taking values in a certain nuclear Fréchet space.

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