



colmeia

Colóquio Interinstitucional

Modelos Estocásticos e Aplicações

Quarta-feira, 21 de setembro de 2016

Programa

14:00 - 15:20 – **Carlos Hugo Jimenez (PUC-RIO)**

Probabilistic methods in Asymptotic Geometric Analysis

In this talk we will review some probabilistic applications and tools developed in Asymptotic Geometric Analysis. Asymptotic Geometric Analysis is mainly concerned with geometric and linear properties of finite dimensional objects, such as convex sets and normed spaces, especially with the characteristic behavior that emerges when the dimension, or a number of other relevant free parameters, is suitably large or tends to infinity. High-dimensional systems are very frequent in mathematics and applied sciences, hence understanding of high-dimensional phenomena is becoming increasingly important.

15:40 - 17:00 – **Paul Smith (Cambridge)**

Towards universality in bootstrap percolation

Bootstrap percolation is a broad class of monotone cellular automata, which has links to the Glauber dynamics of the Ising model and other areas of statistical physics. Starting with random initial conditions, the question is to determine the threshold for complete occupation of the underlying graph. Until relatively recently, only nearest-neighbour models (and relatively minor variants of these models) had been studied – and these are now very well understood. In this talk I will discuss a new ‘universality’ theory for bootstrap percolation, which has emerged in the last few years. In particular, I will explain a classification of two-dimensional models, give more precise results for so-called ‘critical’ models (also in two dimensions), and talk about a new classification theorem for higher dimensional models.

17:00 – Discussão e lanche

Local

Sala de reuniões do Decanato do CTC
12^o andar do prédio Cardeal Leme
PUC-Rio, Gávea

Contatos

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