

Seminario doble conjunto Modelamiento Estocástico / Núcleo Milenio MESCYD

Primera Sesión: 3pm

Avelio Sepúlveda (U. Lyon 1)
Liouville dynamical percolation

A dynamical percolation is a process on black and white colourings of the vertices of a graph, in which each vertex has an independent Poissonian clock, and each time a clock rings the colour of its correspondent vertex is resampled. In this talk, we will study a dynamical percolation in the triangular grid, using clocks whose rate is defined in terms of a Liouville measure of parameter γ . In particular, we will show that this dynamic converges, in the scaling limit, to a càdlàg process that undergoes a phase transition when $\gamma = \sqrt{5/2}$.

Joint work with C. Garban, N. Holden and X. Sun.

Segunda Sesión: 4pm

Nikolas Tapia (Norwegian U. of Science and Technology)
The signature method

Introduced by Chen and then generalised by Lyons, signatures have found a wide number of applications in Machine Learning and Data Analysis in recent years.

On the first half of this talk I will give a brief introduction to the subject and describe some of the applications existing in the literature.

On the second half, I will discuss current work-in-progress (joint with E. Celledoni and P. E. Lystad) on an application of the signature method to motion recognition in computer animation.

Sala de Seminarios John Von Neumann CMM, séptimo piso torre norte, Beauchef 851.