

**Seminario de Probabilidades de Chile**

**Charla #1: A partir de las 15:00 horas.**

**Oradora:** Mira Shevchenko, (École Centrale Méditerranée and Laboratoire Jean Alexandre Dieudonné at Université Côte d'Azur. Nice, Francia)

**Título:** Drift parameter estimation for a fractional interacting particle system.

**Resumen:** We consider a system of interacting particles with Lipschitz continuous drift functions, driven by additive fractional Brownian motions with  $H$  in  $[1/2, 1)$ . For this system, we address the drift parameter estimation problem from continuous observations over a fixed time interval, assuming that the drift depends linearly on an unknown parameter vector. We propose estimators inspired by the least squares approach, demonstrate their consistency and asymptotic normality as the number of particles tends to infinity, and present a numerical study illustrating our findings. The proofs rely on establishing a quantitative propagation of chaos result for the Malliavin derivatives of the system. This talk is based on joint work with Chiara Amorino and Ivan Nourdin.

**Charla #2: A partir de las 16:15 horas.**

**Orador:** Lyuben Lichev (TU Wien, Austria)

**Título:** Diameter and mixing time of the giant component in the percolated hypercube.

**Resumen:** The  $d$ -dimensional binary hypercube is the graph whose vertices represent the binary vectors of length  $d$  and two vertices are adjacent if they differ in a single coordinate. The percolated hypercube (where every edge is retained independently with probability  $p$ ) is a classic model in random graph theory. In this talk, we are going to survey some of the history of the model and discuss recent estimates of the mixing time of the lazy simple random walk and the diameter of the giant component in a supercritical percolated hypercube. Based on a joint work with Michael Anastos, Sahar Diskin and Maksim Zhukovskii.

El enlace para conectarse al seminario es:

Unirse a la reunión Zoom

<https://reuna.zoom.us/j/84521834914?pwd=OTZ6Y0NWm3pYTgtTbEt3c0luTG96UT09>

ID de reunión: 845 2183 4914

Código de acceso: 997973

**Modalidad híbrida en la sala Maryam Mirzakhani, Torre Norte Piso 6, , Beauchef 851.  
Miércoles 24 de Noviembre 2025 a las 15:00 horas.**