

Seminario de Probabilidades de Chile

Orador: Felipe Muñoz (DIM - Universidad de Chile)

Título: Approximation of a cross-diffusion system by repulsive random walks.

Resumen: Cross-diffusion systems are a class of partial differential equations used to describe the diffusion of populations showing local repulsion.

In this talk we will consider a stochastic individual-based model evolving on a discrete space and we will show that we can obtain convergence to an object in the former class under suitable scales and conditions. The model takes into account two species, where each one is sensitive to the number of individuals of the other species through the individual rate of motion of the particles, this being proportional to the density of individuals on the same site. The approximation is valid when the number of sites and the number of individual per site go to infinity and furthermore we will see that it can be quantified.

This is a joint work with Vincent Bansaye and Ayman Moussa.

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

Miércoles 23 de Junio a las 16:15 horas.