

SEMINARIO

CONJUNTO NÚCLEO MESCD y MODELAMIENTO ESTOCÁSTICO

Expositora

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Titulo

A new probabilistic interpretation of Keller-Segel model for chemotaxis, application to 1-d.

Resumen:

The Keller Segel (KS) model for chemotaxis is a two-dimensional system of parabolic or elliptic PDEs. Motivated by the study of the fully parabolic model using probabilistic methods, we give rise to a non-linear SDE of McKean-Vlasov type with a highly non standard and singular interaction kernel.

In this talk I will briefly introduce the KS model, point out some of the PDE analysis results related to the model and then, in detail, analyze our probabilistic interpretation in the case $d=1$.

This is a joint work with Denis Talay (TOSCA team, INRIA Sophia-Antipolis Mediterranee).

Martes 13 de Junio, 16:00 hrs., Sala John Von Neumann, 7mo piso, CMM, U. Chile.

