Ciclo de jóvenes investigadores en el IMAC

Institut de Matemàtiques i Aplicacions de Castelló

UNIVERSITAT JAUME·I

Conferencia a cargo de
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The High order numerical methods for Keller-Segel Models on Networks.

ABSTRACT: In this work, the one dimensional cell migration models including Keller-Segel models (classical and flux-limited Keller-Segel) are extended to general network topologies. We define appropriate coupling conditions ensuring the conservation of mass and show the existence and uniqueness of the solution. For our computational studies, we use a positive preserving *second order* scheme satisfying a network CFL condition. Finally, we numerically validate the Classical Keller-Segel nextwork model as well as Flux-Limited Keller-Segel nextwork model and present results regarding special network geometries.

Fecha: 20 de mayo de 2014, a las 15:30 horas
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