



SEMINARIO DE ANÁLISIS NUMÉRICO Y MODELACIÓN MATEMÁTICA

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Título de la Charla:

***Analysis of a two interacting species
model in a polluted area***

Fecha y Hora:

Martes 25 de Septiembre de 2012, 16:00 Horas.

Lugar:

Sala Seminario, Facultad de Ciencias, Universidad del Bío-Bío.

Resumen

In the present work, we prove existence results for a predator-prey system in a polluted environment. The existence result is proved by the Schauder fixed-point theorem. Moreover, we construct a combined finite volume - finite element scheme to our model, we establish existence of discrete solutions to this scheme, and show that it converges to a weak solution. The convergence proof is based on deriving series of a priori estimates and using a general L^p compactness criterion. Finally, we give some numerical examples.

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