



DEPARTAMENTO DE  
ANÁLISIS MATEMÁTICO Y  
MATEMÁTICA APLICADA



Facultad de Ciencias  
MATEMÁTICAS



Instituto de  
Matemática  
Interdisciplinar

# SEMINARIO DE ANÁLISIS MATEMÁTICO Y MATEMÁTICA APLICADA

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**Waseda University**

## **On the cross-diffusion limit in the Shigesada-Kawasaki- Teramoto model**

This talk is concerned with the Lotka-Volterra competition system with cross-diffusion terms.

We focus on the asymptotic behavior of positive steady-states when one or both of the cross-diffusion coefficients tend to infinity (the unilateral or full cross-diffusion limit). Each of the two types of cross-diffusion limits is considered under the homogeneous Neumann/Dirichlet boundary conditions, and a total of four types of global bifurcation structures are presented.

**Organized by: Departamento de Análisis Matemático y Matemática Aplicada and Instituto de Matemática Interdisciplinar (IMI)**

**Date: Tuesday, March 12, 2024, 13:00h**  
**Place: Seminario Alberto Dou (Room 209)**  
**Facultad de CC. Matemáticas, UCM**