**ALESSANDRO ZILIO (Université de Paris)**

**Spiraling Asymptotic Profiles of Competition-Diffusion Systems**

In this talk I will present a joint work with Susanna Terracini (Università di Torino) and Gianmaria Verzini (Politecnico di Milano). We study the structure of the nodal set of segregation profiles arising in the singular limit of planar, stationary, reaction-diffusion systems with strongly competitive interactions of Lotka-Volterra type, when the matrix of the interspecific competition coefficients is asymmetric and the competition parameter tends to infinity. Unlike the symmetric case, when it is known that the nodal set consists of a locally finite collection of curves meeting with equal angles at a locally finite number of singular points, the asymmetric case shows the emergence of spiraling nodal curves, still meeting at locally isolated points with finite vanishing order. I will then present an ongoing project with Ariel Sarlot (Universidad de Buenos Aires) in which we construct solutions to the corresponding parabolic system. More specifically, we build eternal rotating spiral-like solutions.