

Entire solutions and spiralling asymptotic profiles of competition-diffusion systems

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In this talk we consider solutions of the competitive elliptic system

$$\begin{cases} -\Delta u_i = -\beta \sum_{j \neq i} a_{ij} u_i u_j & \text{in } \Omega \subset \mathbf{R}^N \\ u_i = g & \text{in } \partial\Omega \end{cases} \quad i = 1, \dots, k, \quad (1)$$

and their asymptotic profiles when $\beta \rightarrow +\infty$. We shall focus our attention on the asymmetric case: $a_{ij} \neq a_{ji}$. This is a joint result with A. Salort, G. Verzini, A. Zilio.