HERB KUNZE, University of Guelph, Guelph, ON N1G 2W1 Monotonicity Properties of Reaction-Diffusion Systems

A framework exists for analyzing monotonicity with respect to initial conditions of solutions to systems of ordinary differential equations. Monotonicity properties can offer support for or invalidate proposed mathematical models. I have recently been interested in extending these ideas to reaction-diffusion systems and will present some results in this talk. In particular, we will see that some known results for certain reaction systems carry over to their reaction-diffusion analogs.