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Monotone Wavefronts for Partially Degenerate Reaction-Diffusion Systems

In this talk, I will report our recent research on monotone wavefronts for cooperative and partially degenerate reaction-diffusion systems. The existence of monostable wavefronts is established via the vector-valued upper and lower solutions method. It turns out that the minimal wave speed of monostable wavefronts coincides with the spreading speed. The existence of bistable wavefronts is obtained by the vanishing viscosity approach combined with the properties of spreading speeds in monostable cases.

This is joint work with Jian Fang.