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Propagation Phenomena for A Reaction and Diffusion Model with Seasonal Succession

In this talk, I will report our recent research on propagation phenomena for a two-species competitive reaction and diffusion model with seasonal succession. In the bistable case, we establish the existence and global stability of time-periodic bistable travelling waves. In the monostable case, we show that the model system admits a single spreading speed, which coincides with the minimal wave speed for time-periodic traveling waves. We also obtain a set of sufficient conditions for the spreading speed to be linearly determinate. This talk is based on two joint papers with Drs. Yuxiang Zhang and Manjun Ma, respectively.