

Applied Dynamical Systems Seminar

Dr. Xiaoqiang Zhao

**Monday, November 10, 2014
10:00-11:00am HH-3026**

Propagation Phenomena for A Reaction and Diffusion Model with Seasonal Succession

Abstract:

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 traveling 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 joint works with Drs. Manjun Ma and Yuxiang Zhang.