

Applied Dynamical Systems Seminar

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12-1pm, HH-3017

Traveling Waves for a Periodic and Diffusive SIR Epidemic Model

Abstract:

There have been quite a few investigations on traveling waves for autonomous epidemic models with spatial dispersal. We present a time-periodic reaction and diffusion SIR model with standard incidence to incorporate the seasonality. We study the existence and nonexistence of periodic traveling waves for such a non-monotone system by using the Schauder fixed point theorem and the comparison arguments. This talk is based on a recent joint work with Drs. Zhicheng Wang and Xiaoqiang Zhao.