

1086-35-2279

Xiang-Sheng Wang* (xswang@mun.ca), Dept of Math & Stat, Memorial University of Newfoundland, St. John's, NL A1C 5S7, Canada. *Traveling Waves of Diffusive Predator-Prey Systems: Disease Outbreak Propagation*. Preliminary report.

We study the traveling waves of reaction-diffusion equations for a diffusive SIR model. The existence of traveling waves is determined by the basic reproduction number of the corresponding ordinary differential equations and the minimal wave speed. Our proof is based on Schauder fixed point theorem and Laplace transform. (Received September 25, 2012)