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Asymptotic Behavior of A Reaction-Diffusion Model With A Quiescent

This research is devoted to the investigation of the asymptotic behavior for a reaction-diffusion model with a quiescent stage. We first establish the existence of asymptotic speed of spread and show that it coincides with the minimal wave speed for monotone traveling waves. Then we obtain a threshold result on the global attractivity of either zero or positive steady state in the case where the spatial domain is bounded. The numerical simulations are also provided to illustrate these analytic results.