Applied Dynamical Systems Seminar

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Monday, April 01, 2013
13:00-14:00
HH-3026

Global Stability of Traveling Waves for a Nonlocal Model

Abstract:
In this talk, we study the stability and convergence rate of traveling wavefronts for a nonlocal population model. Using the analysis of the principal eigenvalue of a non-local linear operator, we show that all noncritical wavefronts are globally exponentially stable, as long as the initial perturbation is uniformly bounded in a weighted space. This result can be generalized to n-dimensional case and three applications of our main results are also presented.

Coffee and cookies will be served