

STABILITY OF TRAVELLING FRONT SOLUTIONS FOR A FOREST DYNAMICAL SYSTEM

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Abstract

This paper is concerned with the stability of two families of traveling front solutions with infinite many speeds for a forest dynamical system with cross-diffusion. By detailed spectral analysis and applying C_0 -semigroup theories, all the traveling front solutions with noncritical speeds and some traveling fronts with critical speeds are proved to be locally exponentially stable in some appropriate exponentially weighted spaces.