## Accepted Manuscript

Stability of multi-group models with cross-dispersal based on graph theory

Tianrui Chen, Zhenyao Sun, Boying Wu

 PII:
 S0307-904X(17)30225-1

 DOI:
 10.1016/j.apm.2017.03.055

 Reference:
 APM 11696

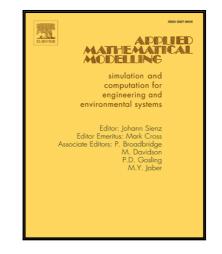
To appear in:

Applied Mathematical Modelling

Received date:	21 October 2015
Revised date:	26 January 2017
Accepted date:	22 March 2017

Please cite this article as: Tianrui Chen, Zhenyao Sun, Boying Wu, Stability of multi-group models with cross-dispersal based on graph theory, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.03.055

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## Highlights

- The new multi-group models with cross-dispersal are proposed.
- Two kinds of sufficient criteria are presented for the stability of our models.
- Graph theory, together with Lyapunov method, are used to solve the stability of multi-group models with cross-dispersal.
- The stability criteria are shown in terms of the topology structure of digraphs.

A CHILLIN MANUSCRY

Download English Version:

## https://daneshyari.com/en/article/5471010

Download Persian Version:

https://daneshyari.com/article/5471010

Daneshyari.com