



McMaster University



University of Toronto



University of Waterloo

THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

EXPOSITORY SEMINAR SERIES ON DYNAMICAL SYSTEMS

SPEAKER:

SHIGUI RUAN
The Fields Institute

On the Topic:

"The Effect of Delays on Stability and Persistence in Plankton Models"

An integrodifferential model of plankton feeding on a limiting nutrient supplied at a constant rate is proposed. We introduce a discrete time delay due to gestation and a distributed time delay describing nutrient recycling in the model. It is shown that a Hopf bifurcation may occur as we increase the discrete time delay past a critical value. We also study the effect of both delays on persistence

Thursday, October 1, 1992 at 1:30 - 2:30 pm, room 3018

at

The Fields Institute

Note: This is an ongoing series each week through December 3, except Oct 15 and 22 For information contact Ali Lari-Lavassani (lavassan@fields.uwaterloo.ca)