

McMaster University





University of Waterloo

### THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

## COLLOQUIUM IN DYNAMICAL SYSTEMS

#### **SPEAKER:**

# JIANHONG WU York University and The Fields Institute

On the Topic:

## "Delay-Induced Oscillations of Large Amplitudes in Neural Networks"

We describe the pattern and global continuation of delay-induced oscillations in the Hopfield model of neural networks. The approach is to apply center manifold theory and Golubitsky-Stewart's theorem to detect local Hopf bifurcations and their spatio-temporal symmetry, and to apply an analog of the global Hopf bifurcation theorem of Alexander-York to describe the global continuation of local bifurcations.

Wednesday, February 10, 1993

3:30 pm, room 3018

at

The Fields Institute

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