



McMaster University



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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