

# Applied Dynamical Systems Seminar

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**Friday, February 17, 2012  
1:00p.m., HH-3017**

## *Equivariant Bifurcation in a Symmetrical Ring Network with Delay*

### **Abstract:**

In this talk, we investigate the bifurcation of a symmetrical ring network model with delay. Firstly, we present the linear stability by analyzing the distribution of a transcendental equation. Then, applying the center manifold theory, normal form approach and symmetrical bifurcation theory, we study the one- and two-dimensional equivariant pitchfork and Hopf bifurcations. Numerical simulation are given to verify the theoretical results. This is a joint work with Dr. Yuan.