962-35-1373 **Kristen S Moore*** (ksmoore@math.lsa.umich.edu), Department of Mathematics, University of Michigan, 525 East University Ave., Ann Arbor, MI 48109-1109, and **P.J. McKenna** (mckenna@math.uconn.edu). *Torsional Oscillations in Suspension Bridges: Bifurcation and Stability Results for Nonlinearly Coupled Beam and Wave Equations.* Preliminary report.

I will discuss numerical results on the bifurcation and stability properties of periodic solutions to nonlinearly coupled beam and wave equations which govern the torsional and vertical motions of a suspension bridge. We observe that, even in the absence of torsional forcing, a small purely vertical motion can give rise to large amplitude torsional oscillation. (Received October 03, 2000)