1116-35-1102 **David P. Nicholls*** (davidn@uic.edu) and **Benjamin Akers** (benjamin.akers@afit.edu).
Traveling Wave Solutions of Nonlinear Dispersive Wave Equations: Existence, Stability, and Analytic Dependence.

In this talk we discuss a general framework for establishing existence of traveling wave solutions of nonlinear dispersive wave equations, and investigating their dynamic spectral stability. Our approach is perturbative in nature (where the small parameter is the wave height/slope) and delivers branches of solutions and spectral data which are analytic with respect to this parameter. We outline not only rigorous theorems, but also present robust and highly accurate numerical results for solutions of particular equations. (Received September 17, 2015)