1113-35-113   **Muhammad Usman*** (`musman1@udayton.edu`), 300 College Park, Dayton, OH 45469-2316. *A perturbation method to study the stability of travelling wave solutions of a class of nonlinear partial differential equations.*

In this talk some results on bifurcations in steady state solutions of a class of nonlinear dispersive wave equation and for a damped externally excited Kuramoto-Sivashinsky type Equation will be presented. Using an asymptotic perturbation method stability of solutions will be discussed. We consider the primary resonance by defining the detuning parameter. External-excitation and frequency-response curves are shown to exhibit jump and hysteresis phenomena for the models. (Received August 15, 2015)