## 1077 - 35 - 2737

## Maya Chhetri, Sarah Raynor\* (raynorsg@wfu.edu) and Stephen Robinson. Existence of Multiple Positive Solutions to Some Semipositone Systems.

In this talk we use the method of upper and lower solutions combined with degree theoretic techniques to prove the existence of multiple positive solutions to some semipositone, superlinear elliptic systems with Dirichlet boundary conditions, under suitable conditions on the nonlinearities. Our techniques apply generally to subcritical, superlinear problems with a certain concave-convex shape to their nonlinearity. (Received September 22, 2011)