

# Combinatorics Seminar

Wednesday, Sept. 5, 2007

2:30 pm in Hume 331

**Dr. Haidong Wu**

Department of Mathematics  
The University of Mississippi

## **Non-separating cocircuits in 3-connected binary matroids**

### **ABSTRACT**

In this talk, I will present some results on non-separating cocircuits in 3-connected binary matroids. We give a best possible bound on the number of non-separating triads in minimally 3-connected binary matroids. We also give a characterization of all minimally 3-connected binary matroids by generalizing a graph result of Dawes (*J. Combin. Theory Ser. B* **40**, (1986), 159-168). Finally, we give a counterexample of a conjecture of Wagner on minor-minimally 3-connected matroids. This is partially joint work with Anderson, McNulty, and Reid, respectively.