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Haidong Wu* (hwu@olemiss.edu), Department of Mathematics, University of Mississippi, University, MS 38677. *Non-separating cocircuits in 3-connected binary matroids.*

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 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. This is partially joint work with Joe Anderson. (Received September 21, 2006)