

Department of Mathematics

Combinatorics Seminar

Friday, October 23

2 PM

Hume 331

On Circuit Sizes of Binary Matroids

by

Dr. James Reid

Murty in 1971 characterized the connected binary matroids with all circuits having the same size. We characterize the connected binary matroids with a deletable series-class such that all circuits containing the series-class have the same size, and all circuits avoiding the series-class have the same size. As a consequence of this result we obtain both Murty's result and other results on matroids with circuits of only two sizes. This is joint work with Manoel Lemos and Haidong Wu.