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**Brad Bailey\*** (bbailey@ngcsu.edu), Dept. of Mathematics & Computer Science, 82 College Cr, Dahlonaga, GA 30597, and **Dianna Spence** and **John Holliday**. *The  $r$ -reduced cutting numbers of cycles, sequences of cycles and graphs*. Preliminary report.

In this talk, we define the  $r$ -reduced cutting number of a cycle within a given simple connected graph and the  $r$ -reduced cutting number of a graph. We determine the maximum and minimum number of edges in a graph with  $n$  vertices and  $r$ -reduced cutting number  $k$ . We also define the  $r$ -reduced cutting number for an edge-wise disjoint sequence of cycles in a graph. Then the cutting power (at level  $r$ ) of a graph is the shortest such sequence which has  $r$ -reduced cutting number at least 2. (Received September 03, 2008)