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Torina Deachune Lewis* (tdlewis1@olemiss.edu), **Talmage James Reid** and **Laura Sheppardson**. *Bicircular Matroids with Circuits of a Single Size*.

Murty was the first to study matroids with all hyperplanes having the same size in his paper, equicardinal matroids and finite geometries. Young renamed such a matroid a "Matroid Design". Further work on determining properties of these matroids was done by Peyton Young, U. S. R. Murty, and Jack Edmonds in their paper, equicardinal matroids and matroid-designs. These authors were able to connect the problem of determining such a matroid with problems on balanced incomplete block designs. The dual of a matroid design is one in which all circuits have the same size. Murty restricted his attention to binary matroids and was able to characterize all connected binary matroids having circuits of a single size. Lemos, Reid, and Wu provided partial information on the class of connected binary matroids having circuits of two different sizes. They also showed that there are many such matroids. Here we determine the connected bicircular matroids with all circuits having the same size. (Received September 22, 2010)