

1154-05-2071 **Ben Clark, Kevin Grace*** (kevin.grace@bristol.ac.uk), **James Oxley** and **Stefan H.M. van Zwam**. *Dyadic matroids with spanning cliques*.

The Matroid Minors Project of Geelen, Gerards, and Whittle describes the structure of minor-closed classes of matroids representable over a fixed finite field. In order to use these results to study specific classes, it turns out to be important to study the matroids in the class containing spanning cliques. A spanning clique of a matroid M is a complete-graphic restriction of M with the same rank as M .

In this talk, we will describe the structure of dyadic matroids with spanning cliques. The dyadic matroids are those matroids that can be represented by a real matrix A where every nonzero subdeterminant is $\pm 2^i$ for some integer i . A subclass of the dyadic matroids is the signed-graphic matroids. In the class of signed-graphic matroids, the entries of the matrix A are determined by a signed graph. Our result is that dyadic matroids with spanning cliques are signed-graphic matroids and a few exceptional cases. (Received September 17, 2019)