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Sandra Kingan* (skingan@brooklyn.cuny.edu), Department of Mathematics, Brooklyn College, CUNY, Brooklyn, NY 11210. *On Representable Matroids With Large Planes.*

Two $GF(q)$ -representable matroids $M(A)$ and $M(B)$ may be representable as matroids, but there may be no way of obtaining matrix A from matrix B using elementary row operations, column scaling, column permutations, or field automorphisms. In this case we say A and B are inequivalent representations of the same matroid. The study of $GF(q)$ -representable matroids is complicated by the presence of inequivalent representations. It may be one reason why Rota's conjecture that $GF(q)$ -representable matroids have a finite list of minimal excluded minors is not yet resolved. We prove that inequivalence is not an issue for 3-connected $GF(q)$ -representable matroids with large planes (planes with at least $2q$ elements) because they are stabilized by their rank 3 minors. This is joint work with Robert Kingan. (Received February 21, 2009)