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Sandra Kingan* (skingan@brooklyn.cuny.edu), Department of Mathematics, Brooklyn College, City University of New York, 2900 Bedford Avenue, Brooklyn, NY 11210. *Inequivalence in Representable Matroids. Preliminary Report.* Preliminary report.

The study of matroids representable over finite fields is complicated by the presence of inequivalent representations. Two F -representations of a matroid are algebraically equivalent if one can be obtained from the other by elementary row operations, column scaling, and field automorphisms. If we don't allow field automorphisms, then we say the representations are projectively equivalent. We introduce another type of equivalence where we allow column permutations and relate it to geometric properties of the matroid. (Received January 19, 2010)