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**Joseph E Bonin** and **Carla D Cotwright\*** (cdcotwri@olemiss.edu), Department of Mathematics, University, MS 38677, and **Talmage J Reid** and **Jakayla Robbins**. *Clones in minors of matroids*. Preliminary report.

Elements  $x$  and  $x'$  in a matroid  $M$  are *clones* if the map that interchanges  $x$  and  $x'$  and fixes all other elements is an automorphism of  $M$ . Properties of clones in matroids are important in the study of matroid representability. There are many results that relate particular elements in a matroid to minors of that matroid. For example, Seymour proved that if  $X$  is a 2–element subset of a 3–connected non-binary matroid  $M$ , then  $X$  appears in a  $U_{2,4}$ –minor of  $M$ . We establish similar results for clones in a matroid and investigate the correlation of these results with the excluded-minors for the matroids that are representable over a small finite field. (Received September 26, 2005)