1014-06-72 **John W Snow*** (`jsnow@shsu.edu`), Department of Mathematics and Statistics, Sam Houston State University, Huntsville, TX 77341-2206. *$M_4$ and Congruence Heredity.*

The notions of congruence heredity and power heredity were recently introduced by Palfy and Hegedus. A congruence lattice L of a finite algebra A is hereditary if every 0-1 sublattice of L is the congruence lattice of an algebra with the same universe as A. L is power hereditary if every 0-1 sublattice of $L^n$ is a congruence lattice on the universe of $A^n$ for all n.

The author recently proved that every congruence lattice representation of $N_5$ is power hereditary. Palfy recently demostrated a non-power-hereditary representation of $M_3$. To date, there is no know hereditary representation of $M_4$.

In this talk, we will prove if $A$ is a finite algebra satisfying a nontrivial idempotent Maltsev condition and if the congruence lattice of $A$ contains a copy of $M_4$, then the congruence lattice of $A$ is not hereditary. (Received July 18, 2005)