1125-20-905 **Martha Lee H Kilpack*** (mlhkilpack@mathematics.byu.edu) and **Arturo Magidin**. *For what finite lattices does the lattice of closure operators form a subgroup lattice?*

A lattice L is called algebraic if it is generated by the compact elements of L. For each algebraic lattice L there exists an algebraic structure A such that the lattice of subalgebras of A is algebraic to L. We will call the algebraic lattice L a subgroup lattice if L is isomorphic to a subgroup lattice $\mathrm{Sub}(G)$ for some group G.

For a finite lattice L the closure operators which act on L form an algebraic lattice c.o.(L). Extending the results for when L is a finite subgroup lattices, we will show for any finite lattice L that c.o.(L) is a subgroup lattice if and only if L is a chain (totally ordered set). (Received September 13, 2016)