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**William DeMeo\*** ([williamdemeo@gmail.com](mailto:williamdemeo@gmail.com)). *Finite group properties deducible from local subgroup lattice structure.*

We recently proposed classifying a group property according to whether or not we can deduce that a group has this property if its subgroup lattice contains an interval of a certain shape. More precisely, suppose  $\mathcal{X}$  is a group property and suppose there exists a lattice  $L$  such that if  $G$  is a group and  $L$  is isomorphic to an interval  $\{K : H \leq K \leq G\}$  in the subgroup lattice, with  $H$  a core-free subgroup of  $G$ , then  $G$  has property  $\mathcal{X}$ . We call such  $\mathcal{X}$  a “core-free interval enforceable” property. In this talk we list some group properties that we have been able to classify as either core-free interval enforceable or not, and then we describe how the study of such properties might lead to an example of a finite lattice that is not the congruence lattice of a finite algebra. (Received August 12, 2013)