1079-05-114   **Marina Dombrovskaya*** (`dombrom@math.wustl.edu`). *Quotients of subgroup lattices of finite abelian p-groups.* Preliminary report.

Let G be a finite abelian p-group of type λ. It is well-known that the lattice $L_\lambda(p)$ of subgroups of G is the order-theoretic p-analogue of the chain product $[0, \lambda]$. However, any surjection $\varphi : L_\lambda(p) \to [0, \lambda]$ with order analogue properties does not respect group automorphisms. We are interested in $\overline{L_\lambda(p)}$, the quotient lattice of $L_\lambda(p)$ under the action of a Sylow p-subgroup of the automorphism group of G. This quotient lattice is particularly interesting since it respects group automorphisms, has the property that the size of an orbit of the action is a power of p, and is closely related to the product of chains $[0, \lambda]$. We will discuss combinatorial properties of $\overline{L_\lambda(p)}$ and several other interesting quotients of $L_\lambda(p)$ that arise as a consequence of studying $\overline{L_\lambda(p)}$. (Received January 02, 2012)

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