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**Peter Mayr\*** ([peter.mayr@jku.at](mailto:peter.mayr@jku.at)), Altenberger Strasse 69, Linz, 4040. *Affine complete  $G$ -sets*. Preliminary report.

For a permutation group  $G$  on a set  $X$ , we call the algebra  $(X, G)$  a  $G$ -set. Hence  $G$ -sets are simply the algebraic structures that model group actions. If every unary congruence preserving function on a  $G$ -set is either constant or in  $G$ , we say that it is 1-affine complete.

We present some families of affine complete  $G$ -sets, like for example, regular actions of non-abelian groups that are generated by involutions. In general, whether a  $G$ -set is affine complete is not determined by the isomorphism type of its congruence lattice alone. Still we can show that certain lattices – including all distributive lattices – do not occur as congruence lattices of affine complete  $G$ -sets. (Received January 17, 2009)