1089-06-114 **Tim Hannan** and **John Harding*** (jharding@nmsu.edu). *Automorphisms of Decompositions.*

It is common to consider the quotients of a structure as an ordered set. A typical example is the congruence lattice of an algebra. The binary direct product decompositions of a structure X can also be considered as an ordered structure Fact X. Here we say one binary decomposition $X \simeq A_1 \times A_2$ is less than another $X \simeq B_1 \times B_2$ if they can be built in an obvious way from a ternary decomposition.

We are interested in properties of these objects Fact X both for their intrinsic interest and their connections to quantum logic. Here we begin the study of their automorphisms by considering the automorphism groups of Fact V for a finite-dimensional vector space V, and of Fact X for a finite set X. (Received February 07, 2013)