

1102-05-210

Jessica Striker* (jessica.striker@ndsu.edu). *Rowmotion and generalized toggle groups*. Preliminary report.

We extend the notion of the toggle group (as defined by P. Cameron and D. Fon-der-Flaass and further explored by the author with N. Williams) from the set of order ideals of a poset to any set of subsets \mathcal{L} of the power set on a countable set E . Interesting special cases of this general setting include chains, antichains, and interval closed sets of a poset, independent sets on a graph, matroids, and antimatroids (also called convex geometries or meet-distributive lattices). We study the structure and actions of these toggle groups. If there is a well-defined closure operation on \mathcal{L} , we can also generalize rowmotion from the set of order ideals of a poset to this setting. (Received July 29, 2014)