1125-VA-1919 **Kelli Marie Karcher*** (kkarcher@vt.edu), 1743 Autumn Splendor Way, Blacksburg, VA 24060.

The Space of Biorders for Solvable Groups of Finite Rank. Preliminary report.

A group is said to be biorderable if it has a total order invariant under left and right multiplication. These orders can be given a topology and is called the space of biorders on this group. There has been intensive study on the space of left-orders recently, but less on the space of biorders. We will focus on solvable groups to show under certain conditions the space of biorders is either finite or homeomorphic to the Cantor set. Furthermore, we will give a characterization in terms of the convex subgroups when a biorder is isolated for solvable groups of finite rank. (Received September 19, 2016)