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Samuel J Ivy* (samuel.ivy@usma.edu). *Classifying the Fine Structures of Involutions Acting on Root Systems*. Preliminary report.

We consider real reductive symmetric spaces produced by Lie groups with an involution and the orbits of parabolic subgroups acting on these symmetric spaces. This characterization involves the action of both the symmetric space involution θ on maximal \mathbb{R} -split tori and their associated root systems along with the action of the opposing involution $-\theta$. The classification of the fine structures of root systems by an involution help to better understand the action of both θ and $-\theta$. (Received September 25, 2018)