1145-I1-2637 **Catherine Buell**, **Vicky Klima** (`carmen.m.wright@jsums.edu`), **Jennifer Schaefer**, **Carmen Wright*** (`carmen.m.wright@jsums.edu`) and **Ellen Ziliak**. *Classifying the H-orbits of the Symmetric Space of $SL_2(\mathbb{F}_q)$ for char($\mathbb{F}_q$) $\neq$ 2.* Preliminary report.

Symmetric k-varieties were introduced in the late 1980s as generalizations of Riemannian symmetric spaces of Lie groups defined over $\mathbb{R}$ or $\mathbb{C}$ to linear algebraic groups defined over general fields. Recently the study of non-Riemannian symmetric spaces and generalizations of these spaces to other base fields has led to exciting applications in many areas including representation theory and singularity theory.

Let $G = \mathrm{SL}_2(\mathbb{F}_q)$, where q is odd, with involution θ. With the fixed-point group $G^\theta = H$, one can define the generalized symmetric space $Q = G/H$. We will discuss the classification of the orbits of the action of H on Q since these orbits play an important role in understanding the representation theory of the space. (Received September 25, 2018)