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Nathaniel J Schwartz* (njschwar@ncsu.edu), North Carolina State University, Department of Mathematics, Campus Box 8205, Raleigh, NC 27695. *Involutions of Linear Algebraic Groups over Fields of Characteristic 2*. Preliminary report.

Symmetric k -varieties have applications in several areas of math and physics and are particularly useful in the study of representation theory. Given a linear algebraic group G defined over a field k and θ an involution of G , let H be the fixed point group of θ . Then $G_k (H_k)$ is the set of k -rational points of $G (H)$, and G_k/H_k is called a symmetric k -variety. A first step in better understanding symmetric k -varieties is to study involutions of G . In this talk we describe the isomorphism classes and fixed point groups of involutions of G when k is a field of characteristic 2. (Received September 16, 2012)