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John D Hutchens* (jdhutchens@saumag.edu). *Isomorphism classes of k -involutions of G_2 .*

Isomorphism classes of k -involutions have been studied for their correspondence to symmetric k -varieties. Let G be a reductive algebraic group defined over a field k and $H = G^\theta$ be the fixed point group of $\theta : G \rightarrow G$ an automorphism of order 2 defined over k . If G_k and H_k are the k -rational points of G and H respectively, we call G_k/H_k a symmetric k -variety corresponding to a k -involution θ . Here we begin classifying k -involutions of split algebraic groups of type G_2 . (Received January 24, 2014)