

1139-20-30

John Hutchens* (hutchensjd@wssu.edu) and **N Schwartz**. *Involutions of G_2 over fields*.

Let C be an octonion algebra, then $\text{Aut}(C)$ is a group of type G_2 . We identify the quaternion subalgebras of C that correspond to conjugacy classes of involutions of $\text{Aut}(C)$ over fields of characteristic not 2. Further, we establish a characterization of automorphisms of order 2 and their fixed point groups over fields of characteristic 2 by identifying corresponding four dimensional subalgebras of C . (Received January 09, 2018)