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Kyle Thompson* (kathomp2@ncsu.edu). *On Commuting Involutions of $SL(n, k)$.*

Pairs of commuting involutions of an algebraic group play an important role in the study of such groups as well as in the study of symmetric spaces and their representations. For algebraic groups over algebraically closed fields, pairs of commuting involutions were classified by Helminck, and over the real numbers some results were obtained by Matsuki. In this talk we consider a generalization to arbitrary fields, k , of characteristic not 2, and determine the isomorphy classes of pairs of commuting involutions of the special linear group, $SL(n, k)$. (Received February 05, 2009)