1117-20-134 **George J McNinch*** (mcninchg@member.ams.org). *Central subalgebras of the centralizer of a nilpotent element.*

Let G be a connected, semisimple algebraic group over a field k whose characteristic is **very good** for G. In a canonical manner, one associates to a nilpotent element $X \in \mathrm{Lie}(G)$ a parabolic subgroup P – in characteristic zero, P may be described using an $\mathfrak{sl}_2$ triple containing X; in general, P is the "instability parabolic" for X as in geometric invariant theory.

In this setting, we are concerned with the center $Z(C)$ of the centralizer C of X in G. Choose a Levi factor L of P, and write d for the dimension of the center $Z(L)$. Finally, assume that the nilpotent element X is **even**.

In some recent work with Donna Testerman, we show that one may **deform** $\mathrm{Lie}(L)$ to $\mathrm{Lie}(C)$. This deformation produces a d dimensional subalgebra of $\mathrm{Lie}(Z(C))$. Since $Z(C)$ is a smooth group scheme, it follows that $\dim Z(C) \geq d = \dim Z(L)$.

In fact, Lawther and Testerman have proved that $\dim Z(C) = \dim Z(L)$. Despite only yielding a partial result, the interest in the present method is that it avoids the extensive case checking carried out by Lawther-Testerman in the memoir [LT 11]. (Received January 09, 2016)