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Joseph A Fox* (joseph.fox@salemstate.edu), Department of Mathematics, Salem State College, 352 Lafayette St., Salem, MA 01970, and **Terrell L Hodge** and **Brian J Parshall**. *A new proof of a theorem on the closure ordering on nilpotent orbits of algebraic groups of Type A*. Preliminary report.

We will discuss a new proof of a well-known theorem on the closure ordering of nilpotent orbits in the Lie algebra of an algebraic group of Type A. The original proof by Gerstenhaber uses the theory of \mathfrak{sl}_2 triples, while this new proof uses only very elementary linear algebra. The motivation for studying this closure ordering will also be discussed. (Received September 25, 2006)