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Corey M. Manack* (cmanack@amherst.edu), Amherst, MA 01002. *Character Estimates for Adjoint Simple Lie Groups.*

Call a compact, connected, simple Lie group G *adjoint simple* if it has trivial center. Let $C \subset G$ be a nontrivial conjugacy class, $e \in G$ the identity element of G . We prove the existence of an $N \in \mathbb{N}$, depending on G but not C , such that e lies in the interior of C^n for all $n \geq N$. We then prove that a disk $D \subset \mathbb{C}$ of radius less than 1, contained in the unit disk D_1 and tangent to D_1 at $z = 1$, contains the image of every normalized character $\chi(e)^{-1}\chi$ of G . (Received September 17, 2013)