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Mahir Bilen Can* (mahirbilencan@gmail.com), 6823 St. Charles Ave., Department of Mathematics, Tulane University, New Orleans, LA 70118, and **Reuven Hodges**. *Levi spherical Schubert varieties and intersection theory*. Preliminary report.

By Poincaré duality, the class of a Schubert variety is identified with an invariant differential form on a flag variety. In this talk we present our recent progress on the geometry of Schubert varieties which are invariant under a spherical translation action of a Levi subgroup. In particular, we show that if a semisimple algebraic group G has no G_2 factor, then any smooth Schubert variety X is a spherical L -variety, where L is the Levi factor of the parabolic subgroup that stabilizes X . If time permits, we will present various combinatorial results on the orbits of L in X . (Received February 20, 2018)