1067-22-1219   **Markus Hunziker** and **Mark R. Sepanski*** (`Mark_Sepanski@baylor.edu`), Department of Mathematics, Baylor University, One Bear Place #97328, Waco, TX 76798-7328. *Distinguished orbits and the L-S category of simply connected compact Lie groups.*

We show that the Lusternik-Schnirelmann category of a simple, simply connected, compact Lie group G is bounded above by the sum of the relative categories of certain distinguished conjugacy classes in G corresponding to the vertices of the fundamental alcove for the action of the affine Weyl group on the Lie algebra of a maximal torus of G. (Received September 20, 2010)