Jodi A. Black\* (jablack@emory.edu), Emory University, Mathematics and Science Center, 400 Dowman Drive, Suite W401, Atlanta, GA 30322. Zero Cycles of Degree One on Principal Homogeneous Spaces.

Let G be an adjoint or simply connected, semisimple, classical algebraic group defined over a field k of characteristic different from 2 and let X be a principal homogeneous space under G over k. We show that if X admits a zero cycle of degree 1 then X has a k-rational point. (Received August 04, 2010)