1067-11-959 **Jodi A. Black*** (jablack@emory.edu), Dept. of Mathematics and Computer Science, Emory University, 400 Dowman Drive, Suite W401, Atlanta, GA 30322. *Zero Cycles on Principal Homogeneous Spaces under Semisimple Groups.*

Let k be a field of characteristic different from 2 and let G be a simply connected or adjoint, semisimple algebraic k-group without an absolutely simple factor of type E_8 and such that every absolutely simple factor of exceptional type is quasisplit. Let $S(G)$ be the set of homological torsion primes of G. We show that a principal homogenous space under G over k which admits a zero cycle of degree not divisible by the primes in $S(G)$ has a k-rational point. (Received September 16, 2010)