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J. Matthew Douglass* (douglass@unt.edu), Department of Mathematics, PO Box 311430, University of North Texas, Denton, TX 76203-1430. *Homology of the Steinberg variety and Weyl group coinvariants.*

Using techniques developed by Chriss and Ginzburg we give an elementary proof of the fact that the total Borel-Moore homology of the Steinberg variety of a complex, reductive algebraic group, G , is isomorphic to smash (semi-direct) product of the coinvariant algebra of the Weyl group, W , of G , and the group algebra of W . This work is joint with Gerhard Roehrl. (Received September 08, 2007)