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Eric M. Friedlander\* (eric@math.northwestern.edu), Department of Mathematics, USC, 3620 S. Vermont Ave, Los Angeles, CA 90089. *Rational Cohomology and Supports for Unipotent Algebraic Groups.* Preliminary report.

Let G be an linear algebraic group of exponential type and M a rational G-module. We discuss the relationship between the support variety  $V(G)_M$  defined in terms of 1-parameter subgroups and the support variety  $V^{coh}(G)_M$  defined in terms of rational cohomology. As an interesting example, we consider the unipotent group  $U_N$ , improving previous computations of its rational cohomology. (Received September 10, 2015)