1046-20-1224   **Christopher M Drupieski*** (`cmd6a@virginia.edu`), University of Virginia, Department of Mathematics, Kerchof Hall, Charlottesville, VA 22904. *Cohomology of finite-dimensional quantized enveloping algebras: the mixed case.*

Let k be an algebraically closed field. Let Φ be an indecomposable root system, and let U_ζ denote the corresponding quantized enveloping algebra (Lusztig integral form) with parameter q specialized to a primitive ℓ-th root of unity $\zeta \in k$. Let G denote the simple, simply-connected algebraic group over k with root system Φ. The Frobenius–Lusztig kernel u_ζ is a finite-dimensional Hopf subalgebra of U_ζ. The structure of the cohomology ring $H^\bullet(u_\zeta, k)$ has been well-studied in the case $k = \mathbb{C}$, but results on the structure of $H^\bullet(u_\zeta, k)$ when k has positive characteristic (the so-called mixed case) are absent from the literature. In this talk we will discuss the structure of $H^\bullet(u_\zeta, k)$ under the assumption that k has positive characteristic. We will also discuss the cohomology rings of certain other finite-dimensional subalgebras of U_ζ corresponding to higher Frobenius kernels of G. (Received September 15, 2008)