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Milen Yakimov* (yakimov@math.ucsb.edu), Department of Mathematics, University of California, Santa Barbara, CA 93106. *Spectra of quantum Schubert cells and quantum flag varieties.*

De Concini, Kac, and Procesi defined a family of subalgebras U_q^w of a quantized universal enveloping algebra $U_q(\mathfrak{g})$, associated to the elements of the corresponding Weyl group W . They are deformations of universal enveloping algebras of nilpotent Lie algebras and can be considered as quantized algebras of functions on Schubert cells. We will describe explicitly all torus invariant prime ideals of the algebras U_q^w , construct efficient generating sets, and describe the poset of those ideals. We will then apply these results to classify the torus invariant prime ideals of quantum partial flag varieties. (Received September 09, 2009)