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Paramasamy Karuppuchamy* (pk6j@virginia.edu), Department of Mathematics, University of Virginia, Charlottesville, VA 22904. *Some vanishing theorems for the twisted Dolbeault cohomology of the Complete flag varieties.*

Let G be a simple, simply connected algebraic group rank l , $l \geq 2$, defined over an algebraically closed field k , $\text{char } k = 0$, and B be a Borel Subgroup. We prove some vanishing theorems for the twisted Dolbeault cohomology of G/B . As a consequence we derive the following results: 1. We show that the Bott vanishing property fails to hold for generalized flag varieties. 2. The variety G/B is not a toric variety 3. The variety G/B can not be degenerated to a toric variety in such a manner that ample cone degenerates to ample cone.

The proof involves the theory of roots and weights. We also get a realization/interpretation of the Coxeter number. (Received September 10, 2007)