1048-14-175 **Edward L Richmond*** (erichmo2@uoregon.edu). *Decomposing structure constants for the Belkale-Kumar product in the cohomology of flag varieties.*

Let G be a complex semi-simple Lie group and let $P \subseteq Q$ be a pair of parabolic subgroups of G. Consider the flag varieties $G/P, G/Q$ and Q/P. We look at the cohomology ring $(H^*(G/P), \odot_0)$ equipped with the Belkale-Kumar product structure $\odot_0$. We give a formula for the structure constants with respect to the Schubert basis in $(H^*(G/P), \odot_0)$ in terms of the structure constants in $(H^*(G/Q), \odot_0)$ and $(H^*(Q/P), \odot_0)$. We also give an application of this formula in the representation theory of G. (Received February 05, 2009)