

1054-22-51

Nitu R Kitchloo* (nitu@math.ucsd.edu), 9500 Gilman Drive, Department of Mathematics, UCSD, AP&M Building, La Jolla, CA 92093. *Universal Bott Samelson resolutions*. Preliminary report.

The flag varieties for algebraic groups over the complex numbers have desingularizations known as Bott-Samelson resolutions. It is basic question to inquire how various invariants of these flag varieties depend on the choice of resolution. Given an algebraic group G , we will construct a universal Bott-Samelson resolution which can be interpreted as the flag variety of a universal lift \tilde{G} of G . We then describe the map from \tilde{G} to G in detail. Our methods work for more general flag varieties like the affine flag variety. (Received August 30, 2009)