

Jaehyun Hong, KIAS, Seoul, Korea

Cohomology of Hessenberg varieties

Hessenberg varieties are subvarieties of complete flag varieties G/B associated to Hessenberg subspaces, which are b -submodules of \mathfrak{g} containing \mathfrak{b} , where \mathfrak{b} and \mathfrak{g} are the Lie algebras of B and G . When the subspace is the sum of \mathfrak{b} and the negative root spaces, it is the toric variety associated with the fan defined by the hyperplanes orthogonal to the roots of \mathfrak{g} . In this talk we will investigate the Weyl group action on the cohomology spaces of Hessenberg varieties.