
Equivariant K -theory of generalized Steinberg varieties

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This is a report on joint work with J. M. Douglass. We describe the equivariant K -groups of a family of generalized Steinberg varieties that interpolates between the Steinberg variety of a reductive, complex algebraic group and its nilpotent cone in terms of the extended affine Hecke algebra and double cosets in the extended affine Weyl group. As an application, we use this description to define Kazhdan-Lusztig "bar" involutions and Kazhdan-Lusztig bases for these equivariant K -groups.