1075-20-103 **J. Matthew Douglass*** (douglass@unt.edu). *Equivariant K-theory of generalized Hecke algebras and affine Hecke algebras.* Preliminary report.

Kazhdan and Lusztig construct an explicit isomorphism between the extended, affine Hecke algebra $\mathcal{H}$ of a reductive, complex, algebraic group G, and the equivariant K-theory of the Steinberg variety of G. In this talk I will report on progress toward constructing a "relative" version of the Kazhdan-Lusztig isomorphism. In the relative setting, the Steinberg variety of G is replaced by a generalized Steinberg variety that depends on a pair of parabolic subgroups, and $\mathcal{H}$ is replaced by a bimodule for two suitably chosen subalgebras. The special case when both parabolics are equal G itself has been described by Ostrik.

The construction I will describe may be viewed as the affine analog of a construction of Curtis, who gave a"relative" version of Lusztig's explicit isomorphism between the group algebra of the Weyl group of G and its Iwahori-Hecke algebra. In both situations, Kazhdan-Lusztig bases play a key role. (Received August 24, 2011)