Affine Hecke algebras and the equivariant K-theory of (generalized) Steinberg varieties

In this talk I will explain the geometric description, due to Kazhdan-Lusztig and Chriss-Ginzburg, of the extended, affine Hecke algebra of the Weyl group of a connected, reductive, complex algebraic group, G, in terms of the equivariant K-theory of the Steinberg variety of G. The emphasis will be on motivating the main ideas and constructions. If time permits, I will also describe generalizations and/or the connection with classical Schubert calculus.