1016-20-233 **Bogdan Ion*** (bion@pitt.edu), Department of Mathematics, University of Pittsburgh, Pittsburgh, PA 15260. *Kazhdan-Lusztig bases of maximal parabolic modules of affine Hecke algebras.* Preliminary report.

Kazhdan and Lusztig introduced their celebrated polynomials as change of basis coefficients between two bases of a Hecke algebra: a certain "canonical" basis (the KL basis) and the standard basis. Parabolic modules are representations of Hecke algebras induced from trivial representations of parabolic Hecke subalgebras. For an affine Hecke algebra, the image of the KL basis inside a maximal parabolic module (corresponding to the maximal parabolic corresponding to the associated finite Hecke algebra) gives an intriguing basis, parametrized by the root lattice Q (of the associated finite root system), which seems to contain some representation-theoretical information: the basis elements indexed by dominant elements of Q are Weyl characters (a result of Lusztig). In this talk I will discuss several results on the KL basis for arbitrary weights (including explicit formulas), their representation theoretical significance and their relevance for the Macdonald theory. (Received February 13, 2006)