1033-16-139 **Zongzhu Lin*** (zlin@math.ksu.edu), Department of Mathematics, Kansas State University, Manhattan, KS 66506, and **Yiqiang Li**, Department of Mathematics, Yale University, New Haven, CT 06520. *AR Aproach to affine canonical bases.*

Lusztig constructed canonical basis of a quantum enveloping algebra of a Kac-Moody Lie as certain equivariant simple perverse sheaves over certain algebraic varieties with an action of algberaic groups. The varieties are associated to quivers that define the Kac-Moody Lie algebras. The orbits of the algebraic group actions correspond to isomorphism classes of the representations of the quiver. The indecomposable representations of the affine quivers are completely known. The canonical basis elements can be described in terms of the Auslander-Reiten quivers of the affine quivers. (Received September 08, 2007)