

# Queen's Algebraic Geometry — Seminar —

HERMITIAN REPRESENTATIONS FOR EXTENDED AFFINE LIE  
ALGEBRAS COORDINATED BY QUANTUM TORI

YUN GAO  
York University

## Abstract

Extended affine Lie algebras are a higher dimensional generalization of affine Kac-Moody Lie algebras. Both the quantum torus and the cyclic homology from the non-commutative geometry come into the picture of structures of extended affine Lie algebras of type A. In this talk, I will present a hermitian representation for the extended affine Lie algebra (of type A) with an algebraic version of the rotation algebra as coordinate algebra by using Wakimoto's free fields.

Monday, March 26, 2007  
4:30pm – 5:30pm  
115 Jeffery Hall