

**UBC Seminar of algebraic groups, Galois
cohomology and related topics
Friday, March 13, 10-10:50am, Room TBA.**

Speaker: Nicolas Guay (University of Alberta)

Title: Double affine quantum algebras

Abstract: Quantum toroidal algebras appeared about fifteen years ago, but still remain very mysterious mathematical objects. I will present new families of quantum algebras of double affine type which should be simpler to understand and which, one hopes, will eventually help shed some light on quantum toroidal algebras. These new algebras are related to Cherednik algebras and to the symplectic reflection algebras of P. Etingof and V. Ginzburg, which are analogs of Hecke algebras of double affine type.

I will briefly sketch one connection between some of those double affine quantum algebras on one hand, algebraic groups and cohomology on the other hand. This is the content of a recent paper of B. Feigin, M. Finkelberg et al. in which they showed how to construct an action of the affine Yangian in the equivariant cohomology of certain Laumon spaces.