

# Algebra Seminar

**Alexey Gordienko,  
Memorial University**

**Wednesday, May 2, 2012  
HH-3017, 1:00p.m.**

*Structure of H-(co)module Lie algebras*

**Abstract:**

The applications of Lie and associative algebras with an additional structure, e.g. graded, H-(co)module, or G-algebras, gave rise to the studies of the objects and decompositions that have nice properties with respect to these structures. I will discuss the H-(co)invariant analog of the Levi theorem that is one of the main results of the structure Lie theory. Also I am going to talk about the stability of the radicals and about further decompositions of the solvable radical and a maximal semisimple subalgebra. In the end of the talk I will discuss the applications of the results obtained to graded Lie algebras and Lie algebras with an action of a completely reducible affine algebraic group by automorphisms.