

Algebra Seminar

Iren Darijani
Memorial University

Wednesday, October 8 , 2014

4:00 p.m., A-1049

The classification of $[p]$ - nilpotent restricted Lie algebras of dimension 5

Abstract:

Any finite dimensional $[p]$ -nilpotent restricted Lie algebras is nilpotent by Engel's theorem.

We use, as our starting point, the classification of nilpotent Lie algebras of dimension 5 and classify the possible equivalence classes of $[p]$ -maps on these Lie algebras.

In this talk, first we will explain the method we use to classify $[p]$ -nilpotent restricted Lie algebras which is the analogue of Skjelbred-Sund method for classifying nilpotent Lie algebras.

Then we give a complete classification of $[p]$ -nilpotent restricted Lie algebras of dimension 5 over perfect fields of characteristic more than 3.