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# Workshop : FROM LIE ALGEBRAS to GROUP SCHEMES

At the University of Ottawa & Carleton University



**MAY 4 - 5,  
2015**

## ORGANIZERS

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*Image: G. Baranski*

Emerging from foundational work by Borel, Chevalley, Demazure, Grothendieck, Serre and Tits, the theory of group schemes has become an important part of the modern mathematical culture. Inspired by the theory of Lie algebras and groups on the one hand and classical algebraic geometry on the other, group schemes have developed into an important tool for understanding representation theory, linear algebraic groups, homogeneous spaces and torsors. Several deep open conjectures in modern algebraic geometry, number theory and representation theory (e.g., Serre's conjectures and the Langland's program) are formulated using the language of group schemes.

This workshop will bring together leading experts and junior mathematicians working in this exciting field. It will include expository lectures aimed at graduate students and postdoctoral fellows, as well as research talks. There is financial support available for junior participants. Those interested should submit their request online.

**For more information, please visit:**

[www.fields.utoronto.ca/programs/scientific/14-15/algebras-to-schemes](http://www.fields.utoronto.ca/programs/scientific/14-15/algebras-to-schemes)



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