Fields Institute for Research in Mathematical Sciences
Atlantic Association for Research in the Mathematical Sciences
Atlantic Algebra Centre (AAC)
Network of Ontario Lie Theorists (NOLT)

International Workshop
Hopf Algebras, Algebraic Groups and Related Topics
June 13 –17, 2016
Memorial University of Newfoundland
St John's, Newfoundland and Labrador

Report

The workshop was the joint activity between the Atlantic Algebra Centre (AAC) and the Network of Ontario Lie Theorists (NOLT). Its focus was on the interrelations and various connections between the theory of Hopf algebras (finite generation of cohomology, Nichols algebras, invariant theory) and the theory of linear algebraic groups (exceptional groups, torsors, cohomological invariants, central simple algebras). At the same time, the participants paid considerable attention to applications in representation theory, graded algebras, super-algebras and quantum groups. The purpose of the workshop was to disseminate new techniques and results in these areas and to promote collaboration by bringing together leading experts and young researchers (especially graduate students and postdoctoral fellows).

The workshop ran for four full days: Monday - Friday, except Wednesday (when the participants were involved in informal discussions and attended a sightseeing tour and a public lecture by Alexander Merkurjev) and featured a unique combination of introductory mini-courses, one-hour research talks and 20-minute communications.

The organizing committee consisted of Yuri Bahturin, Mikhail Kochetov and Yorck Sommerhäuser from AAC and Kirill Zaynullin from NOLT. There were 31 registered participants, including 14 students and postdoctoral fellows (primarily associated with AAC and NOLT, but also from other universities). The number of international participants was 15, from eight countries: Argentina, Brazil, Mexico, Russia, Spain, Germany, UK and USA. The number of Canadian participants was 16, with 6 among them from outside Atlantic Canada. The total number of participants exceeded the expectations of the organizers and proved that the structure of the workshop and its topic were a good choice.

The mini-courses and one-hour talks were given by senior researchers and leading experts:

1. Andruskiewitsch, Nicolas (Universidad Nacional de Córdoba, Argentina)
2. Arzhantsev, Ivan (Higher School of Economics, Russia)
3. Etingof, Pavel (Massachusetts Institute of Technology, USA)
4. Karpenko, Nikita (University of Alberta, Canada)
5. Kharchenko, Vladislav (Universidad Nacional Autónoma de México, Mexico)
6. Merkurjev, Alexander (University of California-Los Angeles, USA)
7. Montgomery, Susan (University of Southern California, USA)

8. Nikshych, Dmitri (University of New Hampshire, USA)
9. Ostrik, Victor (University of Oregon, USA)
10. Popov, Vladimir (Steklov Institute, Moscow, Russia)
11. Schneider, Hans-Juergen (University of Munich, Germany)

The organizers consider the workshop to be a great success. The quantity and quality of speakers (including students) was exceptional. The organizers feel that the new ideas and methods that the participants learned during the workshop will be valuable for their research and will undoubtedly have a positive impact on research activity in the area.

Financial support was provided by Fields Institute for Research in Mathematical Sciences, Atlantic Association for Research in the Mathematical Sciences, and Department of Mathematics of Memorial University of Newfoundland. The web pages of the workshop can be found at http://www.mun.ca/aac/Workshops (including the schedule and abstracts of talks and some materials provided by the participants).

Breakdown of expenses and revenues

1. **Expenses**

a.	Airfare for invited speakers:	$ 4,530.98
b.	Local Accommodation for invited speakers:	$ 6,104.97
c.	Local transportation:	$ 994.37
d.	Support for students and postdoctoral fellows:	$ 2,448.83
e.	Refreshments:	$ 1,710.75
f.	Printing services:	$ 116.70
	Total of expenses:	$15,406.60

2. **Revenues**

a.	Registration fees:	$2,230.00
b.	Fields Institute:	$7,500.00
c.	AARMS:	$5,000.00
d.	AAC Budget:	$ 676.60
	Total of revenues:	$15,406.60

3. **Revenues minus Expenses – Nil**

Yuri Bahturin
Director
Atlantic Algebra Centre