

Atlantic Association for Research in Mathematical Sciences  
Memorial University of Newfoundland  
*Atlantic Algebra Centre*

International Workshop

## “Graded Algebras and Superalgebras”

*August 29 - September 2, 2008*

The main event in the schedule of activities of Atlantic Algebra Centre (AAC) in 2007/2008 was the International Workshop “Graded Algebras and Superalgebras” which took place at Memorial University of Newfoundland on August 29 - September 2, 2008.

The total number of participants was 25, from 10 different countries. The two-lecture series were delivered by prominent people in the area of Graded Algebras and Superalgebras: **Georgia Benkart** (University of Wisconsin-Madison, USA), **Vesselin Drensky** (Bulgarian Academy of Sciences), **Dimitry Leites** (University of Stockholm, Sweden) and **Ivan Shestakov** (University of Sao Paulo, Brazil).

The titles of the lectures were as follows.

- Georgia Benkart “Weyl-like algebras and their modules”
- Georgia Benkart “Centralizers of Groups of Matrices”
- Vesselin Drensky “Computing with multiple symmetric functions and graded cocharacters of graded PI-algebras”
- Vesselin Drensky “Graded algebra structure of the centralizer of a matrix”
- Dimitry Leites “Classification of simple finite dimensional modular Lie superalgebras with Cartan matrix”
- Dimitry Leites “Towards classification of simple finite dimensional modular Lie superalgebras”
- Ivan Shestakov “The Coordinatization Theorem for Jordan Algebras and Superalgebras”
- Ivan Shestakov “The skew-symmetric identities of octonions”

Additional talks, mostly 1-hour, but some 40-minutes, in total 13, were given by the following people

- Eddy Campbell and Jianjun Chuai (Memorial University) “Invariant Theory for Sub-representations”

- Deanna Caveney (College of Charleston, USA) “Universal Imbeddings of Jordan systems into graded Lie algebras”
- Cristina Draper (University of Malaga, Spain) “Some features and techniques on the gradings on exceptional Lie algebras”
- Alberto Elduque (University of Zaragoza, Spain) “Gradings on composition algebras”
- Mikhail Kochetov (Memorial University) “Formal group actions and gradings by p-groups in characteristic  $p$ ”
- Plamen Koshlukov (University of Campinas, Brazil) “Identities in graded tensor products of PI algebras”
- Jason McGraw (Memorial University) “Gradings on simple Lie algebras of Cartan type”
- Vincenzo Nardoza (University of Bari, Italy) “Graded algebras and tensor product theorems”
- Michael Natapov (Indiana University - Bloomington, USA) “On graded polynomial identities of matrixes”
- Erhard Neher (University of Ottawa) “Universal central extensions of graded Lie algebras”
- Oleg Smirnov (College of Charleston, USA) “On Classification of simple Kantor pairs”
- Marina Tvalavadze (University of Saskatchewan) “On varieties parameterizing graded complex Lie algebras”
- Yoji Yoshii (Akita National College of Technology, Japan) “Locally affine root systems and locally affine Lie algebras”

### **Breakdown of expenses and revenues**

**1. Expenses:**

- (a) Travel claims for invited lecturers/speakers \$ 7,254.20
- (b) Accommodation for invited lecturers/speakers \$ 6,021.36
- (c) Other expenses (printing of brochure, hosting, transportation) \$ 601.91
- (d) Total of expenses \$ 13,877.47

**2. Revenues:**

- (a) AARMS support for this event \$ 5,000

(b) From the budget of AAC \$ 8,877.47

(c) Total of revenues \$ 13,877.47

3. Revenues minus Expenses - NIL.

### **Acknowledgment**

The organizational work was done by the AAC Coordinator, Drs Mikhail Kochetov, Mike Parmenter, and Yiqiang Zhou, with the help of Ph D student Jason McGraw and USRA student Andrew Stewart. As usual, our thanks go to the administration and the staff of Memorial University of Newfoundland and its Department of Mathematics and Statistics, with special emphasis of the role of our administrative staff specialist, Ms Ros English.

We also acknowledge an additional support for the workshop by AARMS in the amount of \$5,000.

More information about the workshop can be found on our web site:  
[http://www.math.mun.ca/~aac/index\\_files/Page344.htm](http://www.math.mun.ca/~aac/index_files/Page344.htm)