

THEMATIC SEMESTER

New Directions in Lie Theory

January – June 2014

Centre de recherches mathématiques
Montréal, Canada

The 2014 winter semester will focus on various topics in Lie theory, including

- combinatorial representation theory,
- Kac-Moody and related Lie algebras and their representations,
- Hall and cluster algebras,
- categorification and geometric representation theory,
- Lie theory and mathematical physics.

The goal of the semester is to highlight recent advances in these and related fields and to foster interaction and collaboration between both young and established researchers working in these areas. Winter schools will be aimed at graduate students and postdoctoral fellows, while workshops will serve as a venue for the dissemination and discussion of cutting edge research in Lie theory.

ORGANIZERS

Vyjayanthi Chari (UC Riverside)
Erhard Neher (University of Ottawa)
Alistair Savage (University of Ottawa)

INTERNATIONAL SCIENTIFIC ADVISORY COMMITTEE

Mikhail Khovanov (Columbia University)
Bernard Leclerc (Université de Caen)
Peter Littelmann (University of Cologne)
Tetsuji Miwa (Kyoto University)
Andrei Zelevinsky (Northeastern University)

AISENSTADT CHAIR

April 19-27, 2014
Masaki Kashiwara (Kyoto University)

WINTER SCHOOLS

Each winter school will feature two 12-hour mini-courses augmented by exercise sessions.

January 6-17, 2014

Introduction to categorification

Speaker: Alistair Savage (University of Ottawa)

Introduction to Kac-Moody and related Lie algebras

Speaker: Erhard Neher (University of Ottawa)

February 24 – March 7, 2014

Representations of semisimple and affine Kac-Moody algebras

Speaker: Vyjayanthi Chari (UC Riverside)

Vertex algebras for mathematicians

Speaker: Michael Lau (Université Laval)

WORKSHOPS

Combinatorial representation theory

April 21-25, 2014

Organizers:
Vyjayanthi Chari (UC Riverside)
David Hernandez (Université Paris 7)
Kailash Misra (North Carolina University)
Anne Schilling (UC Davis)
Christophe Reutenauer (UQAM)

Hall and cluster algebras

May 8-12, 2014

Organizers:
Ibrahim Assem (Université de Sherbrooke)
Arkady Berenstein (University of Oregon)
Thomas Brüstle (Bishop's University & Université de Sherbrooke)
Vyjayanthi Chari (UC Riverside),
Hugh Thomas (University of New Brunswick)

Lie theory and mathematical physics

May 19-23, 2014

Organizers:
Terry Gannon (University of Alberta)
Michael Lau (Université Laval)
Erhard Neher (University of Ottawa)
Masato Okado (Osaka University)

Categorification and geometric representation theory

June 9-13, 2014

Organizers:
Joel Kamnitzer (University of Toronto)
Anthony Licata (Australian National University)
Alistair Savage (University of Ottawa)
Ben Webster (Northeastern University)

FINANCIAL SUPPORT

Support is available for visitors, graduate students and postdoctoral fellows attending the various events. All requests must be accompanied by a CV. Furthermore, graduate students are asked to send a letter of recommendation from their research supervisor. Please send your application for financial aid to:

Scientific Activities
Centre de recherches mathématiques
Université de Montréal
C.P. 6128, Succursale Centre-ville
Montréal (Québec)
CANADA H3C 3J7
E-mail: activities@CRM.UMontreal.CA

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NSERC (Canada)
FQRNT (Québec)
Université de Montréal (where the CRM is located)
McGill University
Université du Québec à Montréal
Concordia University
Université Laval
University of Ottawa
Université de Sherbrooke

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