

The Winter 2006 Meeting of the Canadian Mathematical Society welcomed approximately 430 participants.

Following the usual format of the CMS Winter Meeting, the program included a wide variety of special sessions, plenary and prize lectures, as well as a public lecture. All activities and scientific talks were held at the Sheraton Toronto Centre.

Prize Lectures

The meeting included lectures given by the winners of the Jeffery-Williams Prize and the Doctoral Prize of the CMS, and also a lecture given by the winner of the CMS Adrien Pouliot Award. These were as follows:

The Jeffery-Williams Lecture was given by Andrew Granville, University of Montréal
Title: *Pretentious characters*

The Doctoral Prize Lecture was given by Michael Newman, University of Waterloo
Title: *Using eigenspaces of graphs*

The CMS Adrien Pouliot Award Lecture was given by Peter Taylor, Queen's University
Title: *The Structure of a mathematics curriculum*

Plenary Lectures

The speakers and titles of the plenary talks were as follows:

Brent Davis, University of British Columbia
Mathematics-for-Teaching: Where are we with all of this?

Dmitry Dolgopyat, University of Maryland
Fermi acceleration

Dimitri Shlyakhtenko, University of California at Los Angeles
 L^2 Invariants, Free Probability and Operator Algebras

Karen Smith, University of Michigan
Uniform Results in Algebra and Geometry via Multiplier Ideals

Susan Tolman, University of Illinois at Urbana-Champaign
Group actions and the symplectomorphism group

Shmuel Weinberger, University of Chicago
Quantitative Aspects of Topology

Public Lecture

The public lecture, entitled *What is a Proof?*, was given by V. Kumar Murty, University of Toronto on Saturday, December 9, in the evening.

Special Sessions

The meeting hosted 18 parallel special sessions, covering a wide range of mathematical research interests.

The special sessions and their organizers were as follows:

Algebraic Combinatorics

Org: Nantel Bergeron (York), Christophe Hohlweg (Fields Institute) and Michael Zabrocki (York)

Calabi-Yau Varieties and Mirror Symmetry

with a featured lecture by Shing-Tung Yau
Org: James Lewis (Alberta) and Noriko Yui (Queen's)

Cluster Algebras

Organised jointly by the sessions on Algebraic Combinatorics and Representations of Algebras.

Commutative Algebra and Algebraic Geometry

Org: Ragnar-Olaf Buchweitz (Toronto), Graham Leuschke (Syracuse) and Greg Smith (Queen's)

Complexity and Computability in Analysis, Geometry, and Dynamics

Org: Alex Nabutovsky and Michael Yampolsky (Toronto)

Differentiable Dynamics and Smooth Ergodic Theory

Org: Giovanni Forni and Konstantin Khanin (Toronto)

Functional Analysis

Org: Robb Fry (Thompson Rivers) and S. Swaminathan (Dalhousie)

Harmonic Analysis

Org: Izabella Laba (UBC) and Malabika Pramanik (Caltech; UBC)

History of Mathematics

Org: Tom Archibald (SFU)

Knot Homologies

Org: Dror Bar-Natan (Toronto)

Mathematical Aspects of Continuum Physics: Analysis, Computation, and Modeling

Org: Rustum Choksi (SFU) and Mary Pugh (Toronto)

Mathematical Biology

Org: Gail Wolkowicz (McMaster)

Mathematics Education

Org: Walter Whiteley (York)

Nonlinear Schrodinger Equations

Org: James Colliander and Robert Jerrard (Toronto)

Poisson Geometry and Mathematical Physics

Org: Eckhard Meinrenken (Toronto)

Probabilistic Methods in Analysis and Algebra

Org: Matthias Neufang (Carleton) and Balint Virag (Toronto)

Representations of Algebras

Org: Ibrahim Assem, Thomas Brustle and Shiping Liu (Sherbrooke)

Contributed Papers Session

Org: Bill Weiss (Toronto)

Details and abstracts of the talks can be found on the web site of the meeting, at
<http://www.cms.math.ca/Events/winter06/>

Sponsors

Support from the following institutions was gratefully acknowledged:

- le Centre de Recherches Mathématiques
- The Fields Institute
- MITACS
- Pacific Institute for the Mathematical Sciences
- University of Toronto
 - Department of Mathematics
 - Department of Mathematical and Computational Sciences, UTM
 - Department of Computer and Mathematical Sciences, UTSC
 - Faculty of Arts and Science
 - Office of the Vice-President, Research
 - Office of the Vice-Principal, Research, UTM

Meeting Committee

Meeting Director:

Ian Graham (Toronto)

Local Arrangements

Chair: Erich Ellers (Toronto)

Gertrud Jeewanjee (CMS, ex-officio)

Tom Archibald

Ibrahim Assem

Dror Bar-Natan

Ragnar Buchweitz

James Colliander

Robb Fry

Christophe Hohlweg

Konstantin Khanin

Izabella Laba

Eckhard Meinrenken

Mary Pugh

Balint Virag

Bill Weiss

Walter Whitely

Gail Wolkowicz

Michael Yampolsky

Noriko Yui

Graham Wright (CMS, ex-officio)