



CMS NOTES de la SMC

FROM THE PRESIDENT'S DESK

Tom Salisbury
York University, Toronto



IN THIS ISSUE DANS CE NUMÉRO

Editorial 2

Book Review: *The Coxeter Legacy, Reflections and Projections* 4

Book Review: *Techniques of Variational Analysis* 5

News from the Fields Institute 6

Brief Book Reviews 7

Education Notes 8

Call for nominations - 2008
David Borwein Distinguished Career Award / Appel de mises en candidature prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière 2008 10

Call for Applications - Executive Director and Secretary 2008
Appel de candidatures - Directeur administratif et secrétaire de la SMC 2008 12

Appel de sessions - Deuxième congrès Canada-France 2008/Call for sessions - Second Canada-France Meeting 2008 13

CMS-MITACS Joint Conference 2007 / Congrès conjoint MITACS-SMC 2007 14

Élections 2007 Elections 25

Math in Moscow Competition Concours Math à Moscou 27

Call for nominations - Awards and Prizes / Appel de mises en candidature - Prix 28

Calendar of events
Calendrier des événements 30

CFI, without penalizing other equally important initiatives. *The Atlantic Association for Research in the Mathematical Sciences* (AARMS) is expected to compete for its first grant from MRS next year.

Programs at NSERC are never static, and a major new issue is evolving, over which the Canadian mathematical community must continue to engage with NSERC. Research grants to individuals are expected to experience cuts this year. With little new funding entering the system but many new and dynamic researchers applying for their first grants, it is hard to see how else to cope. Moreover, a major reorganization is planned at the level of grant selection committees (GSCs), with the intent of better evaluating **interdisciplinary research**. As anyone who has attended a recent CMS meeting will be aware, mathematical research is far more interdisciplinary than it once was. Groups such as MITACS and the mathematics research institutes have helped make ours the most interdisciplinary field in Canadian science. Mathematics is an enabler of other disciplines. Thus the reorganization at NSERC will have a disproportionate effect on mathematics, and it is particularly important to mathematicians that Canada get this right. Equally, this

means that mathematicians are well placed to offer useful input about what the new GSC structure should be. NSERC is moving fast, with the revisions made in time for the 2008-2009 competition.

Much effort has gone into bringing Canadian science to a new level (eg. the CRC or *Canada Research Chairs* program), to ensure Canada's competitiveness into the new century. It is vital that our government find the resources to adequately maintain this influx of creative young researchers. Such "discipline dynamics" are one side of NSERC's funding model, and are also driving the move to interdisciplinary research. Another is the "cost of research". The CMS hopes to work with NSERC to fairly account for the true **cost of research in mathematics**. Historically, mathematics has been underfunded relative to many other disciplines, and it is essential that NSERC's new model should not simply perpetuate this disparity. Focused input from the mathematical community will help NSERC establish fair and sustainable funding mechanisms; and a strong message to government about the economic value of research in mathematics and science is needed to ensure that there is adequate funding in place to which these mechanisms may then be applied.

français page 26

continued page 11



UNITED WE STAND

Recently a posting appeared on a mathematical mailing list, pointing out Reed Elsevier's involvement in the international arms trade, through subsidiary companies (Reed Exhibitions and Spearhead Exhibitions) that organize arms fairs. Some readers will consider the arms trade in all its forms to be immoral; others will no doubt consider manufacture of weapons, in some forms at least, to be a practice that a prudent country cannot give up unilaterally.

But arms fairs, all too often, bring purchasers from countries with regrettable records in terms of belligerence and human rights abuses in contact with companies selling cluster bombs, instruments of torture, and other unsavory items. At the last Reed arms fair in the UK, for instance (DSEi 05), cluster munitions, leg irons, and stun batons were for sale, according to journalists who attended. Some posed as buyers, and found that the arms companies did not seem overly concerned about the final destination or use of their products.

This has led to a serious debate about whether mathematicians (and others) opposed to the international arms trade should boycott Elsevier publications. Readers will of course form their own opinions on this matter, and it is not the purpose of this editorial to suggest a conclusion. The important point is that the debate is taking place. A particularly interesting viewpoint, even among many of those not advocating a boycott, is that the scholarly community who provide (need we say at no cost to the publishers?) the content of academic journals are stakeholders whose views should not be ignored.

A similar debate has grown up in recent years over the cost of some journals. While some journals are reasonably priced, others are not. For reference, the CJM and CMB cost about \$0.25 per page for individual subscribers - about twice that for institutions and half that for CMS members. Among "commercial" journals, prices of \$1 or \$2 per page are not uncommon; conversely, some electronic journals are free.

It would be interesting to examine the economics of this. Are very expensive journals that many libraries cannot afford actually more profitable than they would be at a lower price and with more subscribers? While it is possible that some overpriced journals could increase their profitability by dropping their price, it is probably safer to assume that the demand curve is such that the price makes sense — as a pure business decision.

But demand is not invariable. Movements such as the "Banff Protocol" have grown up, encouraging mathematicians not to submit papers to, edit, or referee for the most expensive journals. The cost to the individual of participating in such an action depends on the participation rate. If only a few of us take part, so that influential but expensive journals remain the canonical journals of their field, then the researcher who

refuses to publish in those journals will perhaps lose a certain amount of prestige.

On the other hand, widespread participation, especially by senior researchers whose reputations are already made, will cause a shift in relative prestige in favor of the more affordably priced journals. In some cases, the publishers may respond by raising prices! But, overall, it would seem that in the end, such a shift in submission choices will lead to more affordable journals, and more people reading articles.

The decision is ours. In the long run, a journal's reputation depends on the papers it publishes, and not the other way around. It is within our power to reclaim affordable publication.

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RÉDACTEURS EN CHEF

Robert J. MacG. Dawson; S.Swaminathan
notes-redacteurs@smc.math.ca

EDITORS-IN-CHIEF

Robert Dawson, Srinivasa Swaminathan
notes-editors@cms.math.ca

RÉDACTEURS-GÉRANT

Graham P. Wright
gpwright@smc.math.ca

MANAGING EDITOR

Graham P. Wright
gpwright@cms.math.ca

RÉDACTION

Éducation : Edward Barbeau
notes-education@smc.math.ca
Réunions : Gertrud Jeewanjee
notes-reunions@smc.math.ca
Critiques littéraires: Peter Fillmore
notes-redacteurs@smc.math.ca
Recherche : Vacant
notes-recherche@smc.math.ca
Assistante à la rédaction :
Susan Latrelle

CONTRIBUTING EDITORS

Education: Edward Barbeau
notes-education@cms.math.ca
Book Reviews: Peter Fillmore
notes-reviews@cms.math.ca
Meetings: Gertrud Jeewanjee
notes-reunions@cms.math.ca
Research: Vacant
notes-research@cms.math.ca
Editorial Assistant:
Susan Latrelle

Note aux auteurs : indiquer la section choisie pour votre article et le faire parvenir au Notes de la SMC à l'adresse postale ou de courriel ci-dessous.

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Canadian Mathematical Society - Société mathématique du Canada

577 King Edward, Ottawa, Ontario, Canada K1N 6N5

T: (613) 562-5702 F: (613) 565-1539

notes-articles@smc.math.ca

www.smc.math.ca www.cms.math.ca

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LE POUVOIR COLLECTIF

Il y a quelque temps, un message envoyé sur une liste de diffusion dénonçait la participation de Reed Elsevier au commerce international des armes, par l'intermédiaire de filiales (Reed Exhibitions et Spearhead Exhibitions) qui organisent des salons de l'armement. Certains lecteurs considéreront que tout commerce d'arme, quel qu'il soit, est immoral; d'autres considéreront sans doute que la fabrication d'armes, sous certaines formes du moins, est une activité que tout pays prudent ne peut bannir unilatéralement.

Trop souvent, toutefois, le commerce des armes met les acheteurs de pays ayant malheureusement une mauvaise fiche de conduite en raison de leurs activités belliqueuses et du non-respect des droits de la personne, en contact avec des entreprises qui vendent des bombes à dispersion, des instruments de torture et autres articles d'aussi mauvais goût. Selon des journalistes qui ont visité le dernier salon organisé par Reed au Royaume-Uni, par exemple (DSEi 05), des munitions en grappes, des entraves et autres articles du même genre étaient en vente. Des journalistes s'étant fait passer pour des acheteurs ont constaté que les compagnies d'armement ne semblaient pas trop s'inquiéter de l'usage qui serait réservé à leurs produits.

Cette nouvelle a provoqué un grand débat sur le boycott, par les mathématiciens (entre autres), des publications d'Elsevier. Chaque lecteur se fera bien sûr sa propre opinion à ce sujet, et je n'ai pas l'intention de suggérer une conclusion dans cet éditorial. Ce qui m'importe, ici, c'est l'existence même de ce débat. L'un des points de vue intéressants, que partagent de nombreuses personnes opposées au boycott, est que la communauté scientifique qui fournit le contenu des revues (sans frais pour l'éditeur, faut-il le rappeler), a le droit de faire connaître ses opinions.

Un débat semblable dure depuis quelques années quant au prix des revues. Si certaines sont abordables, d'autres ne le sont plus du tout. Par exemple, le JCM et le BCM coûtent environ 0,25 \$ la page pour un abonnement personnel, plus ou moins deux fois ce prix pour l'abonnement institutionnel et la moitié de ce prix pour les membres de la SMC. Parmi les revues « commerciales », un prix de 1 \$ à 2 \$ la page est courant. En contrepartie, certaines revues électroniques sont gratuites.

Il serait intéressant de s'arrêter aux répercussions économiques de ces grilles tarifaires. Les revues qui coûtent cher et que de nombreuses bibliothèques ne peuvent se permettre sont-elles vraiment plus rentables que si elles étaient vendues

moins cher et avaient plus d'abonnés? S'il est possible que certaines revues trop coûteuses pourraient rapporter davantage si on abaissait leur prix, on ne se tromperait sans doute pas en affirmant que la demande justifie le prix – d'un point de vue strictement commercial.

Toutefois, la demande n'est pas fixe. Des mouvements comme le « Protocole de Banff » prennent de l'ampleur et encouragent les mathématiciens à ne pas présenter d'articles, ni faire la révision ou l'évaluation d'articles pour les revues les plus chères. Le coût par personne de prendre part à une telle démarche dépend du taux de participation. Si quelques personnes seulement y participent, de sorte que les revues chères demeurent les références dans le domaine, les chercheurs qui refusent d'y publier pourraient perdre un certain prestige.

Par contre, une vaste participation, en particulier des chercheurs d'expérience dont la réputation n'est plus à faire, entraînera un transfert de prestige vers les revues plus abordables. Dans certains cas, les éditeurs pourraient même réagir en haussant leurs prix! Dans l'ensemble, toutefois, il semblerait qu'un tel choix entraînerait une réduction du prix moyen des revues, et une hausse du nombre total de lecteurs.

La décision vous appartient. À long terme, la réputation d'une revue dépend des articles qu'elle publie, et non le contraire. Nous avons le pouvoir de ramener les publications à des prix abordables.

**Letters to the Editors
Lettres aux Rédacteurs**

The Editors of the *NOTES* welcome letters in English or French on any subject of mathematical interest but reserve the right to condense them. Those accepted for publication will appear in the language of submission. Readers may reach us at notes-letters@cms.math.ca or at the Executive Office.

Les rédacteurs des *NOTES* acceptent les lettres en français ou anglais portant sur un sujet d'intérêt mathématique, mais ils se réservent le droit de les comprimer. Les lettres acceptées paraîtront dans la langue soumise. Les lecteurs peuvent nous joindre au bureau administratif de la SMC ou à l'adresse suivante : notes-lettres@smc.math.ca.

The Coxeter Legacy Reflections and Projections

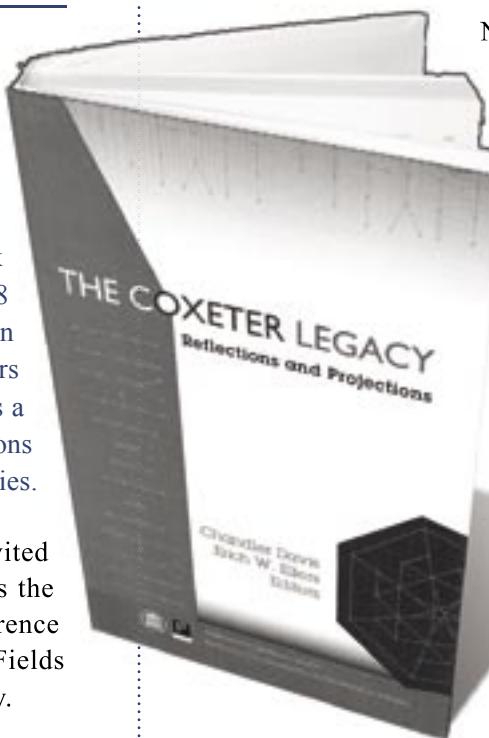
Edited by Chandler Davis and Erich W. Ellers
American Mathematical Society 2006, 320 pp.
\$84.50

H.S.M. Coxeter was born on February 9, 1907, and died on March 31, 2003. According to the book now under review, he has to his credit some 208 publications, the earliest in 1927 and the latest in 2001. This prolific output, spanning three-quarters of a century, is Coxeter's legacy to the world. It is a legacy to mathematics primarily, but the publications also have relevance to science and to the humanities.

This book is a collection of the papers of invited speakers at a conference - with the same title as the book - held in Toronto in May of 2004. The conference was sponsored by the University of Toronto, the Fields Institute and the Canadian Mathematical Society.

The conference's organizing committee was careful to invite speakers representing all or (at least most) of the intellectual pursuits which have been enriched by Donald Coxeter's life and work. With the exception of one (the film-maker Michele Emmer), all speakers were mathematicians. The interests of these individuals were however very diverse indeed. As editors, Davis and Ellers have done a good job in arranging the papers to make a reasonably smooth transition from one aspect of the Coxeter legacy to another.

No doubt the greatest of Coxeter's contributions to mathematics in general is his work on groups generated by reflections (what are now known as Coxeter groups). It is fitting therefore that the collection begins with four papers on group theory (by Bernhard Mühlherr, Alexandre V. Borovik, Mark Ronan and Bertram Kostant respectively). These papers are all very readable and are very helpful to the reader who wishes to understand Coxeter's contribution to group theory. Two in particular seemed to this reviewer to catch the spirit of Coxeter's wide appeal, and for different reasons: Ronan's paper, with the title *From Galois and Lie to Tits Buildings* gives a fine sketch of the development of group theory, and its chief architects. As his title, *Coxeter Theory: The Cognitive Aspects*, suggests, Borovik deals with the problem of understanding mathematical concepts. One of Coxeter's remarkable gifts was his appeal to many people with little or no mathematical training. Somehow, these people found common ground with Coxeter, and went on from there to produce remarkable results.



Next in line come six papers on various aspects of polytope theory (Ruth Kellerhals, Peter McMullen and Egon Schulte, Barry Monson and Asia Ivic Weiss, Jorg Wills, Askold Khovanskii, Marjorie Senechal). This is followed by two papers on projective geometry (Branko Grunbaum, Jurgen Richter-Gebert), always very fitting in a Coxeter conference.

The collection closes with two papers that concentrate on Coxeter's contacts and collaborations with artists.

No celebration of Coxeter's career would be complete without reference to this aspect of his life. In a paper entitled *Coxeter and the Artists: Two-Way Inspiration*, Doris Schattschneider gives a well-illustrated account of the genuine collaboration of Coxeter with artists and film-makers. As her title suggests, this was true collaboration, which was especially evident in Coxeter's long association with the Dutch artist M. C. Escher.

Finally, we have a paper by the film-maker Michele Emmer, with the title: *The Visual Mind: Art, Mathematics and Cinema*. It is an account of the author's experience with Coxeter in the production of a film on M. C. Escher. Like Doris Schattschneider in the previous paper, Emmer writes about collaboration and of how this can take place between two people with very different kinds of expertise. All of the above illustrates the remarkable fact that Donald Coxeter was a mathematician who could communicate his work to others in any medium that presented itself. The world is richer as a result. The conference of which this book is the record achieved its purpose of illustrating the breadth of his remarkable contributions. The book catches the spirit of the conference and is a fitting testimony to this remarkable life.

Techniques of Variational Analysis

by Jonathan M. Borwein and Qiji Zhu
 CMS Books in Mathematics 20
 Springer 2005, 366pp, \$97.95

The title of this book may appear as rather mysterious to some readers. In fact, in spite of the impact of the book [9] of Rockafellar and Wets, “variational analysis” is not a well delimited field yet. The name probably takes its origins in the recent uses of variational principles and in the more remote calculus of variations in which some variations of a solution are taken in order to devise necessary conditions. In the book [9], this original interpretation is mixed with the use of convergences for functions and sets. In fact, as in the book under consideration, the expression “variational analysis” is taken as a substitute to “nonsmooth analysis”. The change may be seen as an attempt to give a more positive aspect to a topic which represents one of the most important developments of mathematics during the last few decades.

Such an assertion is not simply justified by the fact that one is now provided with concepts which enable to handle non differentiable functions. In the views of the present reviewer, this advance consists in the possibility to easily pass from functions to sets and vice versa and also to deal with correspondences (also called relations, multifunctions, multimaps). The passage from a subset S of a set X to a function on X can be performed either via the indicator function ι_S of the set S (given by $\iota_S(x) := 0$ for $x \in S$, $\iota_S(x) := +\infty$ for $x \in X \setminus S$), or, when X is a metric space, via the distance function d_S to S given by $d_S(x) := \inf \{d(x,s) : s \in S\}$. In both cases, the associated function has no smoothness. The reverse passage associates to a function f its epigraph $\text{epi } f := \{(x,r) \in X \times \mathbb{R} : r \geq f(x)\}$ rather than its graph. Such a choice is representative of what has been called by J.-J. Moreau “unilateral analysis”, one-sided analysis. It is justified by the fact that one is often interested in solving minimization problems in which some constraints are likely to be present. Mechanical problems are often of this kind too. These features of nonsmooth analysis are already present in convex analysis. That is no surprise since nonsmooth analysis can be seen as an extension of convex analysis to nonconvex objects. This high objective of finding a framework encompassing both convex analysis and differentiable analysis justifies the assertion made above about the importance of nonsmooth (or variational) analysis.

Such an ambition has its price. First of all, calculus rules are either poorer than the usual ones in differentiable calculus or incorporate some fuzziness. They are also more difficult to prove and are often limited to special classes of Banach spaces. Although the authors inject a lot of functional



analysis in their book, in particular a detailed study of Asplund spaces, their choice is the class of so-called Fréchet-smooth Banach spaces, i.e. Banach spaces on which exists an equivalent norm which is Fréchet differentiable at 0.

Acceptance of some sort of fuzziness is probably the main message of the book under review. This prominent feature distinguishes it from other monographs in which either a limiting procedure is performed or a convexification is accepted. In both cases a loss of accuracy is obtained. Acceptance of fuzziness can be seen in analogy with modern physics in which Heisenberg's principle plays a fundamental role.

In fact, the authors distinguish two sorts of fuzziness, weak and strong fuzziness. The distinction is justified by the accuracy of the rule, which is either relative to the weak* topology or to the strong topology of the dual space. This distinction is indisputable. More debatable is the choice of calling “sum rules” the results displayed in sections 3.3.1 and 3.3.2. While in both cases sums are involved, Theorem 3.3.1 is a minimization rule while Theorem 3.3.3 is a sum rule for Fréchet subdifferentials. This point is probably not just a technical point of terminology. It cannot hide the merit of the authors (and their predecessor M. Lassonde [8]) for putting to the fore the idea of robust (or approximately decoupled) minimization. Such an idea can be combined with the technique of penalization. As a result, the methods of proof for such calculus rules appear to be close to methods used for comparison and uniqueness of Hamilton-Jacobi equations (see 2, 3, 4-5, 7). The recent achievements in the last field would justify a treatment more developed than the one given in section 3.2.3. But the same could be said of many other topics. The length of the index (8 pages) proves that with such a variety of examples and applications a less concise treatment would not be possible within the frame of the book.

The richness of examples and applications presented in the book by Borwein and Zhu demonstrates the effectiveness of the tools displayed by the authors. In many cases, such examples or applications and proofs are developed as

exercises. While such a choice may be frustrating to some readers, it has the advantage of keeping the book in a reasonable size. The reader may also have some hard time with some passages such as the separable reduction (section 6.1.2). On the other hand, the clear approach to many subjects (such as the decoupling technique) will certainly be enjoyed by most readers. The book retains the high qualities of the previous books by the first author, in particular [3]. It is likely it will become the favorite book of many readers eager to know the present state of the art in the field of nonsmooth analysis in a large class of Banach spaces.

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NEWS FROM THE FIELDS INSTITUTE

The current thematic program at the Institute is Geometric Applications of Homotopy Theory. It is divided into 3 subprograms, each with associated graduate courses and workshops: Higher categories and their applications (January-February), Homotopy theory of schemes (March-April), Stacks in geometry and topology (May-June). There will also be a conference, Motives and Algebraic Cycles, and the Distinguished Lecture Series will be delivered by Michael Hopkins (MIT). Please see the Calendar of Events in this issue of the Notes for precise information.

Future thematic programs

The thematic program next fall (2007) will be Operator Algebras. There are four workshops scheduled: Free Probability, Random Matrices, and Planar Algebras, von Neumann Algebras, Structure of C*-Algebras, and Operator Spaces and Quantum Groups, and three graduate courses: Introduction to Operator Algebras, Structure of C*-algebras, and Free Probability. The Distinguished Lecture Series in the fall will be given by Uffe Haagerup (Odense). There will also be a DLS associated with the program in May, 2008, by Alain Connes (Collège de France). Details are listed in the Calendar of Events.

In the Winter/Spring of 2008, the thematic program will be

Ongoing seminars at the Fields Institute

Actuarial Science & Financial Mathematics Group Meetings
Algebraic Combinatorics Seminar
Centre for Mathematical Medicine Seminar Series
Colloquium/Seminar in Applied Mathematics
Cryptography Participants Seminar
Fields Industrial Optimization Seminar
Fields Working Seminar on Nonlinear Equations & Analysis
Geometric Stories Seminar
Geometry and Model Theory Seminar

Modular Curves Seminar
Number Theory and Cryptography Research Seminar
Operator Algebra Seminar
PRMIA Risk Management Seminars
Seminar Series on Quantitative Finance
Set Theory Seminar
String Theory Seminars
Toronto Probability Seminar
Toronto Quantum Information Seminars

The Great π Debate

Colin Adams and Thomas Garrity

MAA 2006, DVD 40 minutes, \$24.95 US

This DVD records a live “debate” between Williams College mathematicians Adams and Garrity as to which of the numbers π or e is the “better”. It includes lots of humour and histrionics, but precious little actual mathematics. After a promising start by Adams, with amusing introductory remarks and a rather carefully worked-out definition of e as the amount owing if one florin is borrowed at 100% interest compounded continuously, the mathematics runs out as the debaters concentrate on roasting each other. It’s all good fun, and the audience enjoyed it. It would be suitable for a high school or college class, as a way of helping to relieve the menace of mathematics that many students feel.

An Introduction to Intersection Homology Theory, 2nd ed

by Frances Kirwan and Jonathan Woolf

Chapman & Hall/CRC 2006, 229pp, \$69.95 US

The 1988 edition, by Frances Kirwan, is here updated by Jonathan Woolf, who explains in the preface that he has “tried to write in the spirit of the first edition, maintaining the book as an introductory guide, or even a piece of propaganda on behalf of the subject, rather than a textbook. This means that many results are quoted, or presented only with a sketch proof. In order that the interested reader can delve further I have attempted to provide a comprehensive bibliography.” The first four chapters contain the elementary material: examples, reviews of homology, cohomology, sheaf cohomology and derived categories, and the definition of intersection homology. The following chapters deal with Witt spaces, L^2 -cohomology, sheaf-theoretic intersection homology, perverse sheaves, the Weil conjectures, and the Riemann-Hilbert correspondence, culminating in the proof of the Kazhdan-Lusztig conjecture.

Fundamentals of Mathematical Logic

by Peter G. Hinman

A.K. Peters 2005, xvi + 896pp, \$80 US

Based on the author’s more than thirty-five years of teaching experience at the University of Michigan, and nearly twenty years in the writing, this book incorporates what he has learned about enabling “students with varying levels of interest and ability to come to a deep understanding of this beautiful subject.” The material covered includes “the central results of 20th century logic as they look from the beginning of the 21st: propositional, first-order and more general logics....

followed by the Gödel incompleteness results and excursions into set theory, model theory and recursion (computability) theory.... roughly what I would hope that a very broadly educated graduate student would have mastered” before beginning to do research. Among the testimonials from users: At last under one cover is all one needs for an advanced introduction to mathematical logic (Gerald Sacks, Harvard); I expect this book to become the standard graduate logic text for the new century (Doug Cenzer, Florida).

Pattern Formation: An Introduction to Methods

by Rebecca Hoyle

Cambridge 2006, x + 422 pp, \$80 US

The goal of this book is to provide an introduction to the range of mathematical theory and methods used to analyse and explain such regular patterns in nature as the stripes of a zebra, the spots on a leopard, or the ripples on a sandy beach. The fact that a given pattern commonly shows up in different systems has led to the symmetry-based approach to the description of pattern formation which this book follows. It opens with a discussion of the “archetypal pattern-forming systems: convection, reaction-diffusion, and the Faraday wave experiment.” Next comes introductory material on bifurcation theory and group theory, followed by seven chapters describing theoretical approaches to understanding pattern formation, starting with the most regular patterns (which involve bifurcations with symmetry) and working towards the irregular (asymptotic methods). Each chapter includes a set of exercises.

The Prince of Mathematics, Carl Friedrich Gauss

by M. B. W. Tent

A.K. Peters 2005, xviii + 245 pp, \$27.95 US

This book is a novel about Gauss written so as to be comprehensible to young readers. The narrative of Gauss’s life is based on stories Gauss told about himself and on letters and descriptions that have come down to us. It is a historical narrative resulting from extensive research of original and secondary sources. The extraordinary mathematical achievements of Gauss are presented with judicious avoidance of technicalities.

Chapter headings: Child Prodigy, The Duke’s Protégé, The Gifted Astronomer (Father of a Young Family), Surveyor of Hannover (Father of a Growing family), Magnetic Professor (Prince of Mathematics).

Math Challenge at UWO

By Tom Griffiths

Math Challenge at Western is a programme for elementary and secondary school students in London, ON, who like mathematics. We offer five classes from October through April, two for elementary students, two for secondary students and one for those preparing for Olympiads. The elementary school sessions are held monthly on the third Saturday. Students in grades 7 and 8 have two hours in the morning, while those in grades 5 and 6 have two hours in the afternoon. They get contest questions in the first hour and have games and hands-on activities in the second. Two-hour secondary sessions occur weekly on Monday evenings for grades 9 and 10 and on Tuesday for grades 11 and 12. An extra hour is provided on Tuesday to prepare for the *MtC* team contest. Olympiad sessions are also held weekly.

The prescribed grade levels are a guide only; many students attend levels beyond their school grade level. For example, many in grades 3 and 4 attend the grade 5/6 class, and many middle school students attend the grade 9/10 class. There are even some elementary students at the senior grades 11/12 class!

The first of the two Monday hours is devoted to topics such as combinatorics and trigonometry, and the second to contest papers. On Tuesday, students prepare for the *Euclid*, *Canadian Open Mathematics Competition* (CMS) and *Fermat* contests, with ample digression into interesting topics at the discretion of the teacher. In the Olympiad preparation class, two retired University professors work with students on old Olympiad papers and *Olymon* materials, as well as provide in-depth studies of topics appropriate to the various Olympiads.

The programme is staffed mainly by volunteer retirees from teaching: 3 elementary, 4 secondary, 2 university teachers, along with two spouses who look after registration, attendance and all other administrative duties. Each class is taught by at least two teachers, each for one hour, so that as retirees we can attend to the important business of taking cruises and other vacations.

We also provide a mathematical library for the senior students which includes books on various mathematical topics. Books on contest preparation are available for sale to the students, along with t-shirts and the programme logo.

The programme is in its eleventh year and has had as many as 450 registrants in one year, with the average being about 350. The original purpose was to offer students an opportunity to train and prepare to handle Olympiad level problems and ultimately earn a position on the Canadian International Mathematical Olympiad team. So far, we have had one student on the team, but several have achieved the

proficiency needed to be invited to the National and other CMS camps. Some students have acquitted themselves most commendably on various competitions and earned entrance scholarships for university. At all levels, students do contest questions, learn material not on the standard curriculum and hear about the history and people of mathematics.

The University of Western Ontario supports the programme in many ways, such as providing space and photocopying. For a registration fee of \$30, students can attend any of several sessions in the program, except for Olympiad preparation, which requires an invitation.

The *MtC* (*Math Challenge Team Invitational Competition*) is held over the long weekend in May. The students arrive for dinner Friday evening; on Saturday, the competition is held and culminates in an awards dinner hosted by the University. They depart on Sunday morning after breakfast, leaving the remainder of the weekend free for the staff. A team in the competition consists of nine students and one coach. This year, the cost per team in 2006 was \$1100, and we anticipate a cost of \$1200 this year. The competition is modeled after the *American Regions Mathematics League* (ARML). First, there is a “power paper” for the whole team based on a topic that develops over a series of questions increasing in difficulty. Next, the team works on a paper with ten independent questions. This is followed by eight questions for each member of the team individually. Next is a relay, a set of three questions for three-member teams, with the answer from the first given as information to the second, and so on. Finally, there is a mental arithmetic competition requiring each member of the team to answer ten questions without calculators or any rough work in a limited time. This contest has been held for two years, and the third will occur in May, when we hope to be joined by teams from Toronto, Ottawa and elsewhere.

The Life of a Mathematician

By Ed Barbeau

Recently, my condominium instituted a library where residents could leave discarded books for others to take. My wife came across a 1983 novel by Rebecca Goldstein, entitled *The mind-body problem*. The heroine and narrator is a woman of Orthodox Jewish background, who having arrived at Princeton to do graduate work in philosophy meets and marries a mathematical prodigy, Noam Himmel, recently recruited to the mathematics department. The author is a distinguished philosopher of science and the mind, but evidently has had direct experience with mathematicians. Her novel explores the evolution of the narrator’s marriage and cultural beliefs as well as the intellectual, cultural, social and familial milieu of mathematicians. There are a few wry sketches, such as this description of Noam’s take on ethical questions:

"That's yet another ethical question, whether we have an ethical obligation to consider ethical questions, including this very one. However, since I haven't considered this question, I don't know that we do have such an obligation, and thus feel no obligation to consider this question." ...Self-referring propositions, as I was to learn, are a favorite source of humor for Noam.

The narrator's introduction to life as a mathematical spouse came early, when her honeymoon was combined with attendance at mathematical conferences. There was an ordering of mathematical talent at the conference. First there were the *Kohanim*, the high priests, descendants of Aaron — about seven or eight mathematicians who converse directly with God. Then came the tribe of the *Levis*, very special, but not allowed entry into the Holy of Holies. And last came the congregation of Israelites, awaiting word from those on high, but still a nation apart, chosen by God. The mathematical hierarchy was duplicated in the groupings of spouses.

Reading this novel got me thinking that an important part of the education and mentoring of students is helping them to understand what the life of a mathematician entails. Some students have a great deal of talent, but the ease with which they encompass the mathematics can sometimes be a confounding factor as they carve out a career; others, while intelligent, have to struggle to make their way, and, while doing so, need to be both inspired and instructed by others before them who had a similar journey. One's success as a mathematician is not solely a function of brainpower; a lot depends on personality, networking, the breadth of one's curiosity, the reliability of one's memory and intellectual instincts and also on luck in finding an area that suits one's predilections and capabilities. While fictional accounts of mathematicians seem to be rare, there are many biographies and autobiographies that show well the different ways in which mathematicians construct their careers.

Some recent plays have also treated the mathematical life. *Proof*, by David Auburn (2000) explores the lifetime contribution of a mathematician and raises the mystery of his daughter's own role in that contribution, while *Arcadia* by Tom Stoppard takes us back to the nineteenth century and the abilities of the young girl, Thomasina.

The undergraduate who wants to understand something of the texture of a career of a mathematician, as well as the nature of the society in which mathematicians move, has a great number of resources available. I will list but a few of these that I think are particularly frank and insightful, and likely to be of the greatest value. A fine biographer is Constance Reid, whose *Hilbert* (1969) provides a first-class account of how a famous mathematician structured his career and stood at the centre of a distinguished mathematical community. A more recent biography about a mathematician who is also

active in politics, is Steve Batterson's *Stephen Smale: The mathematician who broke the dimension barrier* (AMS, 2000). A very recent example of particular significance to us in Canada is *King of Infinite Space: Donald Coxeter, the Man Who Saved Geometry* by Siobhan Roberts (Anansi, 2006), in which we get a many-sided look at the life and influence.

While the amount of historical and biographical material has increased enormously since the middle of the last century, there are a number of notable American autobiographies that provide a remarkably detailed account of the social and intellectual milieu of contemporary mathematicians. I recommend the following:

Philip Davis, *Education of a mathematician* (2000).

Paul Halmos, *I want to be a mathematician: an automathography* (1985).

Norbert Wiener, *Ex-prodigy: my childhood and youth* (1953) and *I am a mathematician: the later life of a prodigy* (1956).

Stan Ulam, *Adventures of a mathematician* (1976).

In recent years, the *College Mathematics Journal* has been publishing interviews with contemporary noted mathematicians, such as the recent one in which Scott H. Brown interviews Henry Wadsworth Gould, an enumerative combinatorist (*College Math. J.* 2006 (37:5), 370-379). Twenty-five such interviews have been collected in the 1985 Birkhäuser publication *Mathematical people: profiles and interviews* edited by D.J. Albers and G.L. Alexanderson; this is well worth having as the foremost figures of our time, such as Coxeter, Conway, Erdős and Graham, talk about their lives and work.

Even though the author is a physicist rather than a mathematician, it is well worth mentioning the autobiographical *Surely you're joking, Mr. Feynman: the adventures of a curious character*, by Richard Feynman. It is hard to suggest a book that sheds light so clearly on the abundant cultural, social and intellectual life of a genius who shoulders his abilities lightly and joyfully.

For school students, a very fine introduction to the mathematical world is *A mathematical mosaic: patterns and problem solving* by Ravi Vakil (Brendan Kelly, 1996). Along with a plethora of mathematical recreations, problems and interesting results are historical vignettes and short personal profiles of younger mathematicians with whom they may identify: J.P. Grossman (b. 1973), Catriona Maclean (b. 1976), Ka-Ping Yee (b. 1976), Eugenia Malinnikova (b. 1974), Jordan Ellenberg (b. 1971), Vin de Silva (b. 1971) and Noam Elkies (b. 1966).

Call for Nominations / Appel de mises candidature

2008 David Borwein Distinguished Career Award Prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière 2008

Le prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière rend hommage à un mathématicien qui a fait une contribution exceptionnelle et soutenue aux mathématiques canadiennes.

Le dossier de candidature comprendra les éléments suivants :

- une lettre de mise en candidature signée par un collègue ou un collaborateur actuel ou des années passées (trois pages maximum) qui connaît très bien les réalisations de la personne proposée;
- un bref curriculum vitae, maximum de cinq pages;
- de deux à quatre lettres d'appui, en plus de la mise en candidature;
- tout autre document pertinent, maximum de 10 pages.

Toute mise en candidature est modifiable et demeurera active pendant trois ans. Le dossier complet, en six exemplaires, doit parvenir au bureau administratif de SMC au plus tard le **31 mars 2007**.

The David Borwein Distinguished career award recognizes mathematicians who have made exceptional, broad, and continued contribution to Canadian mathematics.

A complete nomination dossier consists of:

- A signed nomination statement from a present or past colleague, or collaborator (no more than three pages) having direct knowledge of the nominee's contribution;
- a short curriculum vitae, no than five pages;
- Two to four letters of support in addition to the nomination;
- Other supporting material may be submitted, no more than 10 pages.

A nomination can be updated and will remain active for three years. Six copies of the complete nomination dossier must arrive at the CMS Executive Office no later than **March 31, 2007**.

Selection Committee / Comité de sélection
David Borwein Distinguished Career Award
Prix David Borwein pour carrière distinguée
Canadian Mathematical Society / Société mathématique du Canada
577 King Edward, Ottawa, Ontario K1N 6N5

PROBLEM OF THE MONTH

*The following problem was submitted by
Dr Stan Wagon of Macalester College.*

Fast Balancing Act

Alice: I have ten coins here. They are identical except that some of them may be made of a different alloy, in which case there will be exactly two different weights. I don't need to know which are which, but I do want to know if they all weigh the same. Can I borrow your balance to find out?

Bob: Sure, but it's just an equal-arm balance.

Alice: No problem: I can weigh #1 against #2. If they balance, I'll weigh #1 and #2 against #3 and #4. If they also balance, I can weigh #1, #2, #3 and #4 against #5, #6, #7, and #8. Then if they balance I can weigh #9 and #10 against any other two and I'm done.

Bob: I'm sorry, but I'm in a hurry to lock up the lab for the weekend and I can only let you use the balance three times.

Can Alice achieve her goal despite Bob's lack of cooperation?

Send your own favorite problems to: notes-editors@cms.math.ca

Solution for December's problem: page 20

A truly outstanding **CMS winter meeting** has just concluded in Toronto. The society's appreciation goes to the meeting's sponsors, organizers, and speakers for making it such a success. But particular thanks are due to our host, the **University of Toronto**, and to **Ian Graham** (Meeting Director) and **Erich Ellers** (Chair - Local Arrangements) for the hard work beforehand that enabled the meeting itself to run so smoothly.

The Toronto meeting's banquet provided an occasion to recognize one of the society's long time sponsors, **Sun Life Financial**. This marks the 60th year that Sun Life has been a supporter of the CMS, a relation almost as old as the CMS itself. Sun Life helps ensure the continued health of our mathematics competitions, and awards the *Sun Life Final Cup* annually to the first prize winner of the *Canadian Mathematical Olympiad*. Receiving the Society's thanks at the banquet were **Dikran Ohannessian** (Vice President and CFO) and **Linda MacKenzie** (Director, Philanthropy). Mr. Ohannessian's remarks may be found reprinted in this issue of the Notes.

The banquet was also an occasion to recognize our prize winners - **Malcolm Harper** (Champlain College), winner of the G. de B. Robinson Award; **Peter Taylor** (Queen's), winner of the Adrien Pouliot Award; **Michael Newman** (Waterloo), winner of the Doctoral Prize; **Andrew Granville** (Montreal), winner of the Jeffery-Williams Prize; and **Richard Kane** (Western), winner of both the Distinguished Service Award, and the inaugural David Borwein Distinguished Career Award. David and Bessie Borwein were present to unveil the beautiful bronze sculpture by **Helaman Ferguson** that goes to the Borwein prize winner. This work of art is inspired by a surface of negative curvature related to a conditionally convergent sequence arising from the work of David Borwein and his sons and colleagues.

The banquet also allowed the society to recognize **S. Swaminathan's** 80th birthday, and to offer its profound thanks to **Arthur Sherk** for 13 years of service as Treasurer. Four CMS presidents, two treasurers, and one executive director helped acknowledge Arthur's contributions. The

Institute directors also took this occasion to announce **Joel Feldman** (UBC) as the latest winner of the CRM-Fields-PIMS Prize.

The CMS's Board meeting was notable for the signing of a formal cooperation agreement with the **Sociedad Matemática Mexicana**, with **Dr. Fernando Brambila** representing the SMM. It was also the occasion for announcing a new fund to help graduate students attend our meetings. This fund is made possible by a generous donation from the **University of Lethbridge**, in memory of their valued colleague **Jim Liu**, who died tragically in a car accident in January 2006. Details of this fund will be forthcoming shortly.

The Board meeting also heard about the Society's plans for recruiting a new Executive Director. **Graham Wright** has served the CMS nobly in this position since 1979. The present space is inadequate to detail Graham's profound impact on the Society during that time, and I will save that topic for an occasion when I can do it justice. Suffice it to say that Graham has generously agreed to postpone his retirement from the CMS until July 1, 2008, and that efforts to find his successor are now underway. Please look for the call for applications appearing elsewhere in this issue.

The scientific program of the meeting was an exciting one, with over 425 participants, 18 sessions, 3 prize lectures, a fine public lecture by **Kumar Murty** (Toronto) titled *What is a proof?*, and with plenary talks by **Brent Davis**, **Dmitry Dolgopyat**, **Dimitri Shlyakhtenko**, **Karen Smith**, **Susan Tolman**, and **Shmuel Weinberger**.

I look forward with enthusiasm to the summer CMS meeting in Winnipeg, to be held jointly with **MITACS** May 31-June 3, 2007 and hosted by the **University of Manitoba**. This will be a large and impressive meeting, with topics spanning the range of mathematical research. I hope to see you there!

Tom Salisbury
President

Remarks from Mr. Dikran Ohannessian, Vice-President and Chief Financial Officer, Sun Life Financial at the Canadian Mathematical Society Banquet, December 10, 2006

On behalf of Sun Life Financial, I am honoured to accept this certificate of recognition you have so kindly bestowed on us tonight. Sun Life Financial has been a supporter of the Society for sixty years ... and since 1999, we have been the proud sponsor of the Canadian Mathematical Olympiad. Ours is a very long-standing partnership. And for good reason.

Mathematics is the discipline, the art, and the science behind just about everything that makes the world go around these days. Especially in this era of globalization. Mathematics is the fuel that drives the engine of business.

Every day at Sun Life Financial, we ourselves are immersed

in the "numbers"... actuarial sciences, risk management, return on equity, share value ... it's all based on math. That is why our partnership with the Canadian Mathematical Society is so important to us. Important enough, I might say, that we've made a special case for our support.

Over the past two years, Sun Life Financial has weighted our philanthropy strategy to focus on health-related matters, and secondarily the arts. These are important causes, to be sure. But as focussed as we are on contributing to health and the arts, we did not wish to relinquish our special and long-lasting relationship with the Canadian Mathematical Society.

Call for Applications - CMS Executive Director Secretary Appel de candidatures - Directeur administratif et secrétaire de la SMC

The Canadian Mathematical Society (CMS), one of the leading mathematics organizations in Canada, seeks applications for the position of Executive Director and Secretary. This position offers a unique and exciting opportunity for an individual with energy, drive, initiative and enthusiasm to make a difference on the national stage.

The CMS works to enhance Canada's capacity to innovate and compete globally by promoting the discovery, learning and application of mathematics in Canada. With approximately 1000 members from across Canada and beyond, the CMS's active volunteers support efforts that identify and develop young mathematicians through its math competitions, math camps and other educational activities. The CMS enhances the practice of mathematics in Canada through national conferences, and by publishing research journals, books, and newsletters in both print and electronic formats.

The work of the CMS is carried out by a large number of dedicated and enthusiastic volunteers, together with a superb and experienced staff of eight at the Executive Office in Ottawa. The Executive Director and Secretary must be an effective and experienced administrator, able to address differing points of view with the tact and courtesy appropriate to a largely volunteer organization. The position is full-time and requires sound judgment, independence, travel, and flexibility in the scheduling of working hours.

The Executive Director and Secretary is appointed by the Board of Directors of the CMS, reports to the CMS President and represents the CMS to universities, governments, the corporate sector, institutes, and to other societies and officials. He/she is responsible to the Executive Committee and the Board of Directors of the CMS for the operations of the CMS Executive Office and for the other administrative offices throughout Canada. He/she works in close contact with the CMS President, with responsibility for aspects of the Society's publications, meetings, fundraising, web site, projects, and operations. Some restructuring of the current duties in the position is possible, to align them with the skills of an outstanding applicant. The position starts July 1, 2008 (but the ability to assume some duties on a part-time basis prior to that date is an asset).

QUALIFICATIONS

A doctoral degree in mathematics or experience in an academic and research environment in mathematics is preferred. The candidate should have: prior administrative or managerial experience; excellent organizational skills; excellent interpersonal skills; excellent analytical and problem solving skills; excellent and proven communication skills (preferably in both official languages); experience in setting and managing budgets; and the ability to develop and implement policies that support and promote the work and programs of the CMS. Experience in fundraising and promotion is an advantage. The candidate will work principally out of the CMS Ottawa office.

The deadline for applications is **April 30, 2007, 4pm**. Please submit applications, including a resume, cover letter, and the names of at least three references by fax, email or mail to:

La Société mathématique du Canada (SMC), l'un des principaux regroupements mathématiques du pays, cherche à pourvoir le poste de directeur administratif et secrétaire. C'est un poste unique et stimulant, idéal pour une personne énergique, dynamique, enthousiaste et ayant l'esprit d'initiative qui souhaite se distinguer sur la scène nationale.

La SMC a pour mission de rehausser la capacité du Canada d'innover et d'être concurrentiel à l'échelle mondiale en favorisant la découverte et l'apprentissage des mathématiques, et les applications qui en découlent, au Canada. Forte de ses quelque 1000 membres du Canada et d'ailleurs, et grâce au travail bénévole de nombreux membres actifs, la SMC dépiste et forme de jeunes mathématiciens par l'entremise de concours, de camps et d'autres activités mathématiques éducatives. La SMC rehausse l'activité mathématique au pays par l'organisation de congrès nationaux et la publication de revues, de livres et de bulletins, en format papier et électronique.

Les activités de la SMC sont menées par un grand nombre de bénévoles dévoués et enthousiastes, appuyés par un personnel hors pair et compétent de huit personnes au bureau administratif d'Ottawa. Le directeur administratif et secrétaire doit être une personne efficace et expérimentée, capable de gérer des points de vue divergents avec le doigté et la courtoisie nécessaire dans un organisme en grande partie bénévole. Le ou la titulaire de ce poste à plein temps doit posséder un bon jugement, être autonome, pouvoir se déplacer fréquemment et être souple quant à son horaire de travail.

Le directeur administratif et secrétaire est nommé par le conseil d'administration de la SMC, relève du président de la SMC et représente la SMC auprès des universités, des gouvernements, du secteur privé, des instituts et d'autres sociétés et dirigeants. Cette personne est dérivable au comité exécutif et au conseil d'administration de la SMC pour ce qui est du fonctionnement du bureau administratif d'Ottawa et des autres bureaux de la SMC Canada. Elle travaille en étroite collaboration avec le président de la SMC, et s'occupe de divers aspects des publications, des congrès, des activités de financement, du site internet, des projets et du fonctionnement. Une certaine restructuration des tâches actuelles du titulaire du poste est possible, de manière à tenir compte des compétences d'un candidat ou d'une candidate remarquable. La personne choisie entrera en fonction le 1er juillet 2008 (la possibilité d'assumer certaines tâches à temps partiel avant cette date est toutefois un atout).

COMPÉTENCES

La préférence sera accordée à une personne qui possède un doctorat en mathématiques ou de l'expérience en milieu universitaire et en recherche dans le domaine des mathématiques. Cette personne possédera : de l'expérience en gestion; un sens aigu de l'organisation; un excellent sens des relations humaines; une excellente capacité d'analyse et de résolution de problèmes; des compétences linguistiques exceptionnelles et éprouvées (préféablement dans les deux langues officielles); de l'expérience en planification et en gestion budgétaire; des aptitudes pour l'élaboration et l'application de politiques qui soutiennent et stimulent les activités de la SMC. Une bonne connaissance des campagnes de financement et de promotion constituera un avantage. Le bureau administratif de la SMC à Ottawa est le lieu de travail principal.

Les personnes intéressées ont jusqu'au **30 avril 2007 à 16 h** pour poser leur candidature. Elles doivent faire parvenir leur demande, accompagnée d'un curriculum vitae, d'une lettre de présentation et d'au moins trois références, par fax, par courriel ou par la poste à :

Executive Director Search / Concours pour le poste de directeur administratif

Canadian Mathematical Society / Société mathématique du Canada

577 King Edward

Ottawa, Ontario Canada K1N 6N5

Attn: Dr Thomas Salisbury, CMS President / président de la SMC

Tel: 613.562.5702 FAX: 613.565.1539

e-mail: president@cms.math.ca / courriel : president@smc.math.ca

Appel de sessions - Deuxième congrès Canada-France 2008 **Call for sessions - Second Meeting Canada-France 2008**

Le deuxième congrès Canada-France se tiendra à Montréal (UQAM) les 2-6 juin 2008. Le comité scientifique présidé par Octav Cornea, Nassif Ghoussoub et François Loeser a déjà planifié les conférences plénaires et un grand nombre de sessions (voir liste ci-dessous).

Il reste de la place pour quelques sessions (3-4) non subventionnées. Si vous désirez soumettre un projet de session votre proposition doit inclure un co-organisateur canadien et un co-organisateur français, un titre, une brève description de l'orientation et des objectifs scientifiques de la session, le nombre de communications prévues (pas plus de 16) et une liste potentielle de conférenciers.

Votre proposition doit parvenir à :

Octav Cornea
cornea@dms.umontreal.ca

Date limite: 1^{er} mars 2007

The second Meeting Canada-France will take place in Montreal (UQAM) on June 2-6 2008. The Scientific Committee chaired by Octav Cornea, Nassif Ghoussoub and François Loeser has already planned the plenary talks and a large number of sessions (see list below).

There remains room for a few unfunded sessions (3-4). Proposals should include both a Canadian and a French co-organizer, a title, a short description of the orientation and the scientific purpose of the session, the expected number of talks (no more than 16) and a potential list of speakers.

Your proposal should be sent to:

Octav Cornea
cornea@dms.umontreal.ca

Deadline: March 1st, 2007

Liste des sessions confirmées au 19 déc 2006 / List of confirmed sessions as of Dec 19, 2006

1. Topologie algébrique/Algebraic topology (A. Adem, B. Oliver)
2. Topologie symplectique et de contact/Symplectic and contact topology (E. Giroux, Y. Karshon)
3. Géométrie non commutative et K-théorie pour algèbres d'opérateurs/Non-commutative geometry and K-theory for operator algebras (A. Connes, G. Elliott)
4. Théorie analytique des nombres/Analytic number theory (P. Michel, R. Murty)
5. Analyse géométrique et nonlinéaire /Geometric and Nonlinear Analysis (P. Guan, E. Hebey)
6. Groupes algébriques et sujets reliés/Algebraic groups and related topics (P. Gille, Z. Reichstein)
7. Lois d'échelle critiques pour polymères et percolation/Critical scaling for polymers and percolation (E. Perkins, W. Werner)
8. Topologie, noeuds et sujets reliés/Topology, knots and related fields (M. Boileau, S. Boyer)
9. Méthodes variationnelles et numériques en géométrie, physique et chimie/Variational and numerical methods in geometry, physics and chemistry (L. Bronsard, E. Cances, M. Esteban)
10. Théorie des modèles et applications à la géométrie/Model theory and applications to geometry (Z. Chatzidakis, P. Speissegger)
11. Géométrie arithmétique et théorie des nombres/Arithmetic geometry and number theory (G. Chenevier, H. Darmon)
12. Probability theory/Theorie des probabilités (M. Barlow, J.F. Le Gall)
13. Systèmes dynamiques complexes/Complex dynamical systems (X. Buff, M. Lyubich, Tan Lei)
14. Formes automorphes/Automorphic forms (S. Kudla, C. Moeglin)
15. Calcul scientifique/Scientific computing (C. Bernardi, A. Bourlioux, B. Wetton)
16. Dynamique nonlinéaire dans les sciences de la vie/Nonlinear dynamics in life sciences (P. Chossat, F. Nekka, J. Wu)
17. Mathématiques financières/Financial mathematics (J.C. Rochet, T. Salisbury)
18. Équations aux dérivées partielles/Partial differential equations (H. Berestycki, R. Jerrard)
19. Processus stochastiques en évolution, écologie et génétique/Stochastic processes in evolution, ecology and genetics (D. Dawson, S. Méléard)
20. Femmes en mathématiques/Women in mathematics (B. Keyfitz, M.F. Roy)
21. Statistique/Statistics (Y. Baraud, B. Levit)
22. Méthodes cinétiques en EDP/Kinetic methods in PDE (F. Castella, R. Illner)
23. Mécanique des fluides industrielle/Industrial fluid mechanics (N. Balmforth, J.F. Gerbeau, B. Maury)
24. Éducation mathématique/Mathematical Education (M. Artigue, B. Hodgson)

CMS-MITACS Joint Conference 2007

**Host: University of Manitoba
Delta Hotel, Winnipeg, Manitoba
May 31 – June 3**

On behalf of the University of Manitoba, the Department of Mathematics invites the mathematical community to the CMS-MITACS Joint Conference 2007. The program will include plenary and prize lectures, a wide variety of sessions, including a contributed paper and a poster session, and workshops.

All activities and scientific talks will be held at the Delta Hotel Winnipeg and the Winnipeg Convention Centre.

For the most up-to-date information concerning the program, detailed schedules, registration forms and abstract submission forms, please visit the meeting website at www.cms.math.ca/Events/ or www.mitacs.ca/AC07

Prizes and Awards

CMS Jeffery-Williams Prize
Nassif Ghoussoub (UBC)

CMS Krieger-Nelson Prize
Pauline van den Driessche (Victoria)

CMS Excellence in Teaching Award
to be announced

MITACS Student Awards

MITACS Poster Competition Prizes

Plenary Speakers

John Baldwin (Illinois - Chicago)
Kristin Bennett (Rensselaer Polytechnic Institute)
Andrea Bertozzi (California – Los Angeles)
Bela Bollobas (Cambridge)
Richard Kenyon (UBC)
Michael Nielsen (Queensland)
Charles Read (Leeds)
Arnold Rosenberg (Massachusetts-Amherst)

Business Meetings

CMS Executive Committee Meeting: Wednesday, May 30
CMS Development Group Luncheon: Thursday, May 31
CMS Board of Directors Meeting: Thursday, May 31
CMS Annual General Meeting: Friday, June 1
MITACS International Scientific Advisory Board (ISAB) Meeting: Wednesday, May 30
MITACS Research Management Committee (RMC) Meeting: Thursday, May 31
MITACS Board of Directors Meeting: Saturday, June 2

MITACS Project Leaders Meeting: Sunday, June 3

MITACS Student Advisory Committee (SAC) Meeting: Sunday, June 3

Social Events

Welcoming Reception: Thursday, May 31

Student Social: Friday June 1

Banquet: Saturday, June 2

Complimentary coffee and juice will be available during the scheduled breaks.

Exhibits

Exhibits will be open from 9:30 am to 4:00 pm on Friday and Saturday in room 2E of the Winnipeg Convention Centre.

Joint Exhibit: The Joint Exhibit features books and other products from publishers and other companies and organizations not represented at the meeting. Order forms will be available at the exhibit for your convenience. We will forward any orders to the corresponding company after the meeting. Books and other materials that will be displayed at this Joint Exhibit will be donated to the host university.

CMS Membership Booth and Book Display: We invite participants to visit the CMS Membership Booth and Book Display, located in the registration area. A representative will be available from 9:30 am to 4:00 pm to answer questions about membership, publications, and other programs.

Poster Session

We encourage students and postdoctoral fellows to display posters to present their recent work and results. This gives a chance for media, professors, and students of all levels to gain an appreciation for the type of projects being undertaken in the field of mathematical sciences.

Submission of Abstracts

For abstracts of talks and research posters to be published on-line and in the meeting programme, they have to be submitted by April 15, 2007, using the on-line form at cms.math.ca/forms/abs-s07.

The organizers appreciate the cooperation of all speakers in observing this important deadline.

Registration

The registration form is available at www.cms.math.ca/Events

Registration fees are given in Canadian dollars. Payment

may be made by cheque (Canadian or US dollars), or by VISA or MasterCard. To qualify for the reduced rate, payment must be received by April 1; online registration closes on May 21. Receipts will be provided at the meeting.

	Early rate (before April 1)	Regular rate (April 2 to May 20)	Onsite rate (after May 20)
Prize Lecturer (incl. 2 free banquet tickets)	\$ 0	\$ 0	\$ 0
Plenary, Public Lecturer (incl. 1 free banquet ticket)	\$ 0	\$ 0	\$ 0
Students (incl. 1 banquet ticket)	\$130	\$175	\$215
Postdoc, Retired, K-12 Teachers, Unemployed	\$130	\$175	\$215
MITACS investigators, CMS members, Organizers, Speakers	\$250	\$300	\$350
Industry, all others	\$395	\$445	\$495
One-day fee (onsite only)	-	-	\$175
Banquet ticket	\$ 50.00	\$ 50.00	\$ 50.00

Advantages to Pre-Registration:

- reduced fees for early registration until April 1
- your name appears on the list of participants on the meeting web site
- your Meeting Package is waiting for you at the reception on Thursday evening
- no waiting in line early Friday morning to process your registration!
- banquet tickets are available now but may no longer be available on site

Refund Policy

Participants wishing to cancel their registration must notify MITACS (jrockwood@mitacs.ca) in writing by May 21 to receive a refund less a \$40 processing fee. Those whose contributed paper has not been accepted will upon request be fully refunded.

Accommodation

The hotels listed below are offering rooms at a reduced group rate during the conference as well as 2 days prior and 2 days after the conference. To be eligible for the reduced room rates, participants must make their reservations before the date indicated, quoting the group code. Reservations made after the deadline will be on a space available basis and the group rate may no longer apply.

Rates are per room per night and are quoted in Canadian dollars. Reservations must be guaranteed by a one-night deposit or a major credit card. It is recommended to clarify payment and cancellation policies when making the reservation, as these vary from hotel to hotel.

Additional information regarding accommodation choices will be posted to the meeting web site as it becomes available.

Delta Hotel Winnipeg (www.deltawinnipeg.com)

Booking deadline: April 29, 2007

Group code: CMS-MITACS

350 St. Mary Avenue, Winnipeg, Manitoba, R3C 3J2

Phone 1-888-311-4990

Fax 204-943-8702

Rates

Single/Double: \$120 – Delta Room, \$145.00 - Delta Premier, \$165 – Signature Club, \$220 - Suite

\$15.00 per night for each additional person, maximum occupancy per room is 4 people.

Applicable taxes: 6% GST (refundable to non-residents of Canada), 7% Provincial Sales Tax

Children: Children under 18 may stay for free in their parent's room.

Parking: \$11.00 per day

Check-in: 3:00 PM

Check-out: 12:00 PM

Place Louis Riel All-Suite Hotel

(www.placelouisriel.com)

This all-suite hotel is located 2 blocks from the Delta Hotel

Booking deadline: April 30, 2007

Group code: MATH07 (please quote 'CMS' or 'MITACS' when booking)

190 Smith Street, Winnipeg, Manitoba, R3C 1J8

Phone: 1-800-665-0569, 204-947-6961

Fax: 204-943-3574 or 204-947-3029

Rates:

Single to quadruple: \$100 – Standard Studio Suite, \$110.00 – Standard One-Bedroom Suite, \$120 – Business Executive Studio Suite, \$130 – Business Executive One-Bedroom Suite

\$10.00 per night for each additional person

Applicable taxes: 6% GST (refundable to non-residents of Canada), 7% Provincial Sales Tax

Hotel guests receive a 15% discount on meals in Pastel's Restaurant after 4:00 PM

Children: Children under 18 stay for free in their parent's room.

Parking: \$7 per day

Check-in: 3:00 pm

Check-out: 12:00 pm

Child Care

The Delta Hotel and the Hotel Place Louis Riel do not offer in-house child care; the Front desk or the Concierge will assist in finding child care providers nearby. Advance research and arrangements are recommended.

Travel

A taxi fare from the airport to downtown costs approximately \$15.00 – 17.00.

There is no airport shuttle to the downtown hotels, but the local bus service (Winnipeg Transit) has a route from the airport to downtown. The fare is \$2.00 for adults (exact change required).

Detailed information regarding the University of Manitoba, the city of Winnipeg, and the Province of Manitoba, including tourism information, local weather and climate, site and street maps, and itineraries for self-guided tours, are

available at the following websites:

- University of Manitoba (www.umanitoba.ca)
- Destination Winnipeg (www.destinationwinnipeg.ca/)
- Travel Manitoba (www.travelmanitoba.com)
- Canada Weather Forecast (www.weatheroffice.ec.gc.ca)

Student Travel Support

We strongly encourage the participation of students at the CMS-MITACS Joint Conference. Towards this, we are allocating significant funds to help defray the cost of poster preparation, travel and accommodation for graduate students and post-doctoral fellows.

Subsidies are available for graduate students or postdoctoral fellows who are studying at a Canadian University and who are undertaking research in which mathematics plays a central role. Student subsidies will only be granted to those students who have paid their registration fees by April 1, 2007, and who actively participate in the conference. Such participation could include presenting a poster, giving a talk in a session, joining the MITACS student council, or volunteering to help during the conference. For the latter, a limited number of volunteers are needed and are available on a first-come first-serve basis by using the on-line registration form.

These funds are intended to subsidize travel costs (air fare, car rental, mileage) and dorm-style (shared) accommodations. Students should discuss additional travel subsidies with their supervisor. The conference organizers will not book accommodation or travel for you. Please make your own arrangements, and apply for reimbursement after the conference.

To maximize cost efficiencies, we encourage students from the same school to travel together where they are in driving range of the conference. Students are expected to participate

fully in all aspects of conference, and reimbursements are at the sole discretion of the conference organizers.

Poster Subsidies

In order to facilitate student and postdoctoral poster preparations, we have set aside funds (up to \$50 per poster) to help with the cost of preparing a poster. The MITACS logo must appear on the poster.

Reimbursement Forms will be sent out electronically immediately after the conference. You must submit original receipts, including boarding passes for submission. Claims must be submitted within four weeks of the conference. Claims postmarked after July 4, 2007 will not qualify for reimbursement. Please allow four to six weeks to receive your payment.

Sponsors

Support from the following is gratefully acknowledged. Additional information regarding support for this meeting will be posted to the meeting web site as it becomes available.

- le Centre de Recherches Mathématiques
- The Fields Institute
- Pacific Institute for the Mathematical Sciences
- University of Manitoba
 - Vice President
 - Faculty of Science
 - Department of Mathematics

MITACS and the Canadian Mathematical Society wish to acknowledge the contributions of the Meeting Committee.

CMS Prize Lectureships and Awards Programmes - Prix et bourses de la SMC

The most up-to-date information concerning all CMS Prize Lectureships & Awards programmes, including complete lists of recipients, can be found at: www.cms.math.ca/Prizes/

Vous trouverez l'information la plus récente sur les prix et bourses de la SMC, y compris les listes de lauréats, sur le site Web suivant : www.smc.math.ca/Prizes/

Congrès conjoint SMC-MITACS 2007

Hôte : Université du Manitoba Hôtel Delta, Winnipeg (Manitoba) du 31 mai au 3 juin

Au nom de l'Université de Manitoba, le Département de mathématiques invite la communauté mathématique au congrès conjoint SMC-MITACS 2007. Au programme : des conférenciers pléniers et des conférences de lauréats, une grande diversité de sessions, y compris une session de communications libres et une session de présentations par affiches, ainsi que divers ateliers. Toutes les activités, y compris celles du programme scientifique, se dérouleront à l'hôtel Delta Winnipeg et au centre des congrès de Winnipeg (Winnipeg Convention Centre).

Vous trouverez l'information la plus récente sur les programmes, y compris les horaires détaillés, les formulaires d'inscription et les formulaires électroniques pour l'envoi des résumés au

www.smc.math.ca/Events/f or www.mitacs.ca/AC07.

Prix

Prix Jeffery-Williams de la SMC
Nassif Ghoussoub (UBC)

Prix Krieger-Nelson de la SMC
Pauline van den Driessche (Victoria)

Prix d'excellence en enseignement de la SMC
à venir

Prix étudiants du Réseau MITACS

Prix du concours de présentations par affiches de MITACS

Conférenciers principaux

John Baldwin (Illinois - Chicago)
Kristin Bennett (Rensselaer Polytechnic Institute)
Andrea Bertozzi (California – Los Angeles)
Bela Bollobas (Cambridge)
Richard Kenyon (UBC)
Michael Nielsen (Queensland)
Charles Read (Leeds)
Arnold Rosenberg, Massachusetts–Amherst)

Séances de travail

Réunion du Comité exécutif de la SMC : le mercredi 30 mai

Lunch du Groupe de développement de la SMC : le jeudi 31 mai

Réunion du Conseil d'administration de la SMC : le jeudi 31 mai

Assemblée générale annuelle de la SMC : le vendredi 1er juin

Réunion du Conseil consultatif scientifique international de MITACS : le mercredi 30 mai

Réunion du Comité de gestion de la recherche de MITACS : le jeudi 31 mai

Réunion du Conseil d'administration de MITACS : le samedi 2 juin

Réunion des responsables de projets de MITACS : le dimanche 3 juin

Réunion du Comité consultatif étudiant de MITACS : le dimanche 3 juin

Activités sociales

Réception d'accueil : le jeudi 31 mai

Activité sociale des étudiants : le vendredi 1er juin

Banquet : le samedi 2 juin

Du café et des jus seront servis durant les pauses prévues à l'horaire.

Exposants

Le salon des exposants sera ouvert de 9 h 30 à 16 h le vendredi et le samedi dans la salle 2E du centre des congrès de Winnipeg.

Exposition conjointe : On y présentera des produits de maisons d'édition et d'autres entreprises et organismes non représentés à la Réunion. On trouvera des bons de commande sur place, qui seront transmis aux entreprises concernées après la Réunion. Les livres et autres produits qui seront présentés à cette exposition seront offerts à l'université hôte.

Nous vous invitons à visiter le comptoir d'adhésion et l'exposition de livres de la SMC dans l'aire d'inscription. Un représentant sera sur place de 9 h 30 à 16 h pour fournir des renseignements sur l'adhésion, les publications et les autres activités de la Société.

Session d'Affiches

Nous encourageons les étudiants et chercheurs postdoctoraux à présenter des affiches de même que leurs plus récents travaux et résultats de recherche. Ces présentations offrent la possibilité aux médias, aux professeurs et aux étudiants de tous les niveaux de se familiariser avec les types de projets de recherche dans le domaine des mathématiques. Les affiches seront jugées pendant la conférence, et des prix seront attribués pour les dix affiches meilleures.

Envoi de résumés

Pour pouvoir publier le résumé de votre communication ou de votre présentation par affiche dans le programme du congrès et sur le Web, nous devons le recevoir au plus tard le 15 avril 2007 au moyen du formulaire électronique cms.math.ca/forms/abs-s07. Les organisateurs remercient les conférenciers de bien vouloir respecter cette importante échéance.

Inscription

Vous pourrez vous procurer le formulaire d'inscription au www.smc.math.ca/Events/f

Les tarifs sont indiqués en dollars canadiens dans le tableau. Nous acceptons les paiements par chèque (dollars CAN ou US), VISA ou MasterCard. Le paiement doit nous parvenir au plus tard le 1er avril pour que vous ayez droit aux tarifs réduits; aucune inscription en ligne ne sera acceptée après le 21 mai. Les reçus seront remis sur place.

	Tarif réduit (avant le 1 ^{er} avril)	Tarif normal (du 2 avril au 21 mai)	Sur place
Conférencier primé (2 billets pour le banquet)	0 \$	0 \$	0 \$
Conférencier princ./pop. (1 billet pour le banquet)	0 \$	0 \$	0 \$
Étudiants (1 billet pour le banquet)	130 \$	175 \$	215 \$
Étudiants postdoctoraux, retraités, enseignants (mat., prim., sec.), sans emploi	130 \$	175 \$	215 \$
Chercheurs MITACS, membres de la SMC, organisateurs, autres conférenciers	250 \$	300 \$	350 \$
Membres de l'industrie, tous les autres	395 \$	445 \$	495 \$
Tarif quotidien (sur place seulement)	-	-	175 \$
Billet pour le banquet	50 \$	50 \$	50 \$

Avantages de la préinscription :

- Tarifs réduits pour les personnes qui s'inscrivent au plus tard le 1er avril.
- Votre nom figurera dans la liste des participants sur le site du congrès.
- Votre trousse d'inscription sera déjà prête à votre arrivée le jeudi soir.
- Vous n'aurez pas besoin de faire la file pour vous inscrire à la première heure vendredi matin!
- Les billets pour le banquet sont en vente maintenant, mais il pourrait ne plus en rester sur place.

Politique de remboursement

Les participants qui désirent annuler leur inscription doivent en aviser le Réseau MITACS (j.rockwood@mitacs.ca) par écrit avant le 21 mai pour se voir rembourser leurs frais d'inscription (moins 40 \$). Les participants dont les communications libres n'auront pas été acceptées seront remboursés intégralement sur demande.

Hébergement

Les hôtels ci-dessous offrent des chambres à un tarif de groupe préférentiel pour la durée du congrès ainsi que pour les deux jours qui précèdent et qui suivent l'événement. Pour y avoir droit, vous devez réserver avant les dates limites indiquées en mentionnant le code de groupe. Les réservations faites après la date limite ne seront acceptées que s'il reste des chambres, et il se pourrait que le tarif préférentiel ne soit plus en vigueur.

Les tarifs sont par nuit, par personne, et sont indiqués en devises canadiennes. Toute réservation doit être garantie par le paiement d'une nuit ou par une carte de crédit reconnue.

Nous vous recommandons de vérifier les modalités de paiement et d'annulation au moment de faire votre réservation, car celles-ci varient d'un établissement à l'autre.

Nous publierons sur le site du congrès tout nouveau renseignement concernant l'hébergement dès que nous le recevrons.

Hôtel Delta Winnipeg (www.deltawinnipeg.com)

Date limite : 30 avril 2006

Code de groupe : CMS-MITACS

350 St. Mary Avenue, Winnipeg, Manitoba, R3C 3J2

Téléphone : 1-888-311-4990

Fax : 204-943-8702

Tarifs

Une ou deux personnes : 120 \$ - Chambre Delta; 145 \$ - Chambre Delta Premier; 165 \$ - Chambre Signature Club; 220 \$ - Suite
15 \$ la nuit par personne additionnelle, 4 personnes par chambre maximum.

Taxes : 6 % de TPS (remboursement accordé aux visiteurs de l'étranger), 7 % de taxe de vente provinciale

Enfants : Gratuit pour les enfants de moins de 18 ans qui occupent la même chambre que leurs parents.

Stationnement : 11 \$ par jour

Arrivée : 15 h

Départ : 12 h

Hôtel Place Louis Riel All-Suite

(www.placelouisriel.com)

Cet hôtel est situé à deux rues du Delta

Date limite : 30 avril 2007

Code de groupe : MATH07 (mentionnez CMS/SMC ou MITACS au moment de réserver)

190 Smith Street, Winnipeg, Manitoba, R3C 1J8

Téléphone : 1-800-665-0569, 204-947-6961

Fax : 204-943-3574 ou 204-947-3029

Tarifs :

Une à quatre personnes : 100 \$ - Standard Studio Suite, 110 \$ - Standard One-Bedroom Suite, \$120 - Business Executive Studio Suite, \$130 - Business Executive One-Bedroom Suite
10 \$ la nuit par personne additionnelle

Taxes : 6 % de TPS (remboursement accordé aux visiteurs de l'étranger), 7 % de taxe de vente provinciale; rabais de 15 % accordé aux clients de l'hôtel sur les repas au restaurant Pastel's après 16 h

Enfants : Gratuit pour les enfants de moins de 18 ans qui occupent la même chambre que leurs parents.

Stationnement : 7 \$ par jour

Arrivée : 15 h

Départ : 12 h

Services de garde

Les hôtels Delta et Place Louis Riel n'offrent pas de service de garde sur place; le personnel de la réception ou le concierge pourront vous aider à trouver un gardien ou une

gardienne des environs. Nous vous recommandons de faire vos démarches et vos réservations à l'avance.

Déplacements

Le trajet en taxi de l'aéroport au centre-ville coûte autour de 15 \$ à 17 \$

Il n'y a pas de service de navette de l'aéroport vers les hôtels du centre-ville, mais un autobus du réseau de transport municipal (Winnipeg Transit) assure le service de l'aéroport au centre-ville. Il en coûte deux dollars par adulte (montant exact exigé).

Vous trouverez des renseignements détaillés concernant l'Université du Manitoba, la ville de Winnipeg et le Manitoba (renseignements touristiques, température et climat locaux, cartes de la ville et des attractions touristiques, circuits touristiques piétonniers, etc.) sur les sites web suivants :

- Université du Manitoba (www.umanitoba.ca)
- Destination Winnipeg (www.destinationwinnipeg.ca/)
- Travel Manitoba (www.travelmanitoba.com)
- Service météorologique du Canada (www.weatheroffice.ec.gc.ca)

Aide financière aux étudiants pour les déplacements

Les étudiants diplômés et les chercheurs postdoctoraux qui étudient dans une université canadienne et dont les recherches comportent un volet mathématique important peuvent faire une demande d'aide financière. Ces subventions ne seront accordées qu'aux étudiants qui se seront inscrits avant le 1er avril 2007 et qui auront participé activement au congrès (présentation par affiche, communication, adhésion au Conseil étudiant de MITACS, bénévolat au congrès, etc.).

Subventions de déplacement

Nous encourageons fortement la participation des étudiants à la conférence commune de CMS-MITACS. Vers ceci, nous assignons les fonds significatifs pour aider à défrayer le coût de préparation d'affiche, de voyage et de logement pour les étudiants des cycles supérieurs et les chercheurs postdoctoraux.

Les subventions sont disponibles pour les étudiants des cycles supérieurs ou les chercheurs post-doctoraux qui étudient à une université canadienne et qui entreprennent la recherche dans laquelle les mathématiques jouent un rôle central. On accordera des subventions d'étudiant seulement à ces étudiants qui ont payé leurs frais d'enregistrement par le 1er avril 2007, et qui participent activement à la conférence. Une telle participation a pu inclure présenter une affiche, présenter un exposé en session, joindre le conseil d'étudiant de MITACS, ou offrir pour aider pendant la conférence. Pour le dernier, un nombre limité de volontaires sont nécessaires,

veuillez indiquer si vous voulez vous porter volontaire sur le formulaire d'enregistrement en ligne.

Ces subventions visent à couvrir les frais de déplacement (billet d'avion, location de voiture et kilométrage) et les frais d'hébergement de style dortoir. Les étudiants devraient demander à leur directeur de recherche s'ils pourraient avoir droit à des subventions de déplacement additionnelles. Le personnel de MITACS ne fait aucune réservation d'hébergement ou de voyage pour vous. Veuillez faire vos propres arrangements et déposer votre demande de remboursement directement auprès de MITACS, après la conférence.

Pour maximiser les économies d'échelle, MITACS encourage les étudiants appartenant à un même établissement à voyager ensemble lorsqu'ils peuvent se rendre à la conférence en voiture. On exige des étudiants qu'ils participent activement à tous les aspects de la conférence, et les remboursements seront effectués à la seule discrétion de MITACS.

Subventions de préparation d'affiche

Afin de faciliter la préparation des affiches par les étudiants, MITACS a réservé certains fonds (jusqu'à \$50 par affiche) qui couvrent les frais de préparation d'affiche. Veuillez noter que le logo de MITACS doit figurer sur l'affiche.

Les formulaires de demande de remboursement seront envoyés par voie électronique immédiatement après la conférence. Vous devez soumettre à MITACS tous les reçus originaux pertinents. Les demandes doivent être soumises dans un délai de quatre semaines de la conférence. Les demandes timbrées après le 4 juillet 2007 ne qualifieront pas pour le remboursement. Veuillez accorder quatre à six semaines pour recevoir votre paiement.

Commanditaires

Nous remercions les organismes ci-dessous de leur soutien financier. Nous publierons de plus amples renseignements sur le financement du congrès dès qu'ils nous parviendront.

- Centre de recherches mathématiques
- Institut Fields
- Institut Pacific
- Université du Manitoba
 - Vice-recteur
 - Faculté des sciences
 - Département de mathématiques

Le Réseau MITACS et la Société mathématique du Canada tiennent à remercier les membres du Comité de coordination.

SESSIONS

Algebraic Varieties with Group Actions Variétés algébriques avec actions de groupes Org: Jaydeep Chipalkatti (Manitoba)	Mathematical / Computational Finance Finance mathématique et computationnelle Org: Ruppa K. Thulasiram (Manitoba)	Nonlinear Methods in Computational Mathematics Méthodes nonlinéaires en mathématiques computationnelles Org: Kirill Kopotun (Manitoba)
Banach Algebras and Abstract Harmonic Analysis Algèbre de Banach et analyse harmonique abstraite Org: Yong Zhang (Manitoba)	Mathematical Immunology Mathématiques en Immunologie Org: Beni M. Sahai (Cadham Provincial Laboratory)	Quantum Information Theory Théorie de l'information quantique Org: Richard Cleve (Waterloo)
Complex Function Theory Théorie des fonctions complexes Org: Ian Graham (Toronto), Eric Schippers (Manitoba)	Mathematical Physics Physique mathématique Org: Richard Froese (UBC), Tom Osborn (Manitoba)	Representations of finite and algebraic groups Représentations des groupes finis et des groupes algébriques Org: Gerald Cliff (Alberta), Anna Stokke (Winnipeg)
Computer Algebra and Computer Algebra Systems L'algèbre computationnelle et systèmes d'algèbre computationnelle Org: Michael Monagan (SFU)	Mathematics Education L'éducation mathématique Org: Abba Gumel (Manitoba), Randall Pyke (SFU)	Resource Allocation Optimization Optimisation d'allocation de ressources Org: Binay Bhattacharya (SFU)
Finite Combinatorics Combinatoire finie Org: Robert Craigen (Manitoba), David Gunderson (Manitoba)	Mathematics of Infectious Diseases Modélisation mathématique des maladies infectieuses Org: Abba Gumel (Manitoba)	Statistical Learning Apprentissage statistique Org: Yoshua Bengio (Montreal)
Mathematical Algorithms for Medical Imaging Algorithmes mathématiques pour l'imagerie médicale Org: Sima Noghani (Manitoba)	Model Theory and its Applications Théorie des modèles et ses applications Org: Bradd Hart (McMaster), Thomas Kucera (Manitoba), Rahim Moosa (Waterloo)	Contributed Papers Communications libres Org: Ross Stokke (Winnipeg)
Mathematical Biology Biologie mathématique Org: Gerda de Vries (Alberta), Frithjof Lutscher (Ottawa)	Network Algorithms Algorithmes des réseaux Org: Evangelos Kranakis (Carleton)	

Scientific Directors / Directeurs du Congrès
Don Dawson (Carleton)
Fereidoun Ghahramani (Manitoba)



Local Arrangements / Logistique locale:
Abba Gumel (Manitoba)

Solution to December's Problem

The last nonzero digit of $1,000,000!$ is 4. (The proof, while elementary, is a bit too complicated to give here; the curious reader is directed to the book "Which Way Did The Bicycle Go?" by Konhauser, Velleman, and Wagon (Dolciani, 1996).

We thank the last-mentioned author for suggesting the problem, and invite readers to submit their own favorite problems.

CMS-MITACS Joint Conference 2007 / Congrès conjoint MITACS-SMC 2007

Wednesday / Mercredi May 30 mai		Thursday / Jeudi May 31 mai	Friday / Vendredi June 1 juin	Saturday / Samedi June 2 juin	Sunday / Dimanche June 3 juin
All day	8:30 – 17:00 MITACS Industry Workshop	8:30 – 17:00 MITACS Industry Workshop 12:00 – 17:00 Poster judging	8:00 – 5:00 Registration 9:30 – 4:00 Exhibits / Poster Presentation	8:00 – 5:00 Registration 9:30 – 4:00 Exhibits / Poster Presentation	8:00 – 4:00 Registration
Business Mtgs.	9:00 – 17:00 MITACS ISAB Meeting 18:00 – 22:00 CMS Executive Committee Meeting	8:30 – 12:30 MITACS RMC Meeting 11:00 AM – 13:00 CMS Development Group Luncheon 13:30 – 18:30 CMS Board of Directors Meeting	12:15 – 13:45 CMS Annual General Meeting	12:00 – 17:00 MITACS Board Meeting	8:00 – 10:30 MITACS PL Meeting 9:00 – 12:00 MITACS SAC Meeting 12:00 – 13:30 MITACS Annual General Meeting
Scientific and Social Events			8:30 – 8:50 Opening 8:50 – 9:40 Plenary Lecture 9:40 – 10:30 Plenary Lecture 10:30 – 10:45 Break 10:45 – 12:15 Special Sessions 12:15 – 14:00 Lunch Break 14:00 – 15:30 Special Sessions 15:00 – 15:30 Coffee break, Posters	8:00 – 10:00 Special Sessions	8:00 – 10:00 Special Sessions 10:00 – 10:20 Break 10:20 – 11:10 Plenary Lecture 11:10 – 12:00 CMS Prize Lecture 12:00 – 13:30 Lunch Break 13:30 – 14:20 Plenary Lecture 14:20 – 15:20 Special Sessions 15:20 – 15:45 Break
			15:45 – 16:45 Special Sessions 16:45 – 17:35 Plenary Lecture 17:35 – 18:05 CMS Prize Lecture 18:00 – 20:00 Reception/Registration	15:45 – 16:45 Special Sessions 16:45 – 17:35 Plenary Lecture 18:00 – 19:00 Reception (cash bar)	15:45 – 16:45 Special Sessions 19:00 – 22:00 Awards Banquet

updated January 11, 2007

For the latest schedule details please visit the web site: www.cms.math.ca/events/summer07/
La version la plus récente du programme est en ligne au www.math.ca/reunions/ete07/

NEWS FROM DEPARTMENTS

University of Northern British Columbia

Promotions:

Dr Iliya Bluskov (promoted to Full Professor, July 1 2007); Dr Pranesh Kumar (promoted to Full Professor, July 1 2007); Dr Sam Walters (promoted to Full Professor, July 1 2007).

Appointment:

Dr Wolfram Bentz (Assistant Professor, Universal Algebras, July 1 2006 - June 30 2007).

Retirements: Dr Cristian Ivanescu (Assistant Professor, on parental leave and probable departure from UNBC).

CALL FOR NEWS FROM THE DEPARTMENTS

This is a request for news items to appear in the next issue of the NOTES. Reply to notes-editors@cms.math.ca by the deadline indicated at the back of this issue. Our intention is to circulate this reminder at least once per term and to run this column in all 8 issues (Sep, Oct, Nov, Dec, Feb, Mar, Apr, May).

We hope that departments will submit news at least once per term. Thank you for your cooperation.

Please use the format given below.

Appointments (rank, date, field):

Promotions (rank, date):

Retirements (rank, date):

Resignations:

Death (rank, date):

Awards/Distinctions:

Visitors (name, country, area, date):

Other News:

Mathematics and Statistics

The Department of Mathematics & Statistics is seeking applications for up to three limited term appointments to teach courses in areas that include: **Analysis, Numerical Analysis, Dynamical Systems, Optimization and Probability.** In addition, one extended-term appointment (3 years) is available in **Statistics.** Requirements for the positions are a PhD and evidence of excellence in teaching ability.

Interested candidates must submit a cover letter, a current *curriculum vitae*, a statement of teaching interests, and evidence of teaching effectiveness. Candidates should arrange for three letters of reference to be sent directly to:

Professor Y.P. Chaubey, Chair
Department of Mathematics and Statistics
Concordia University
1455 de Maisonneuve Blvd.
Montreal, Quebec H3G 1M8
chair@mathstat.concordia.ca
<http://www.mathstat.concordia.ca>

These positions are subject to budgetary approval and need, and are full-time, limited term appointments, normally at the rank of Lecturer or Assistant Professor, beginning August 15, 2007 and ending May 31, 2008. Successful candidates will normally be expected to teach three courses per semester. Under the provisions of the CUFA collective agreement, these positions may be renewed twice subject to continued need.

Review of applications will begin as they are received and will continue until the required position has been filled. **All applications should reach departments no later than March 15, 2007.**

All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents of Canada will be given priority. Concordia University is committed to employment equity.

www.concordia.ca



Concordia
UNIVERSITY

Future Meetings / Réunions à venir

Second Canada-France Meeting 2008 Host: University of Montreal

June 2 – 6, 2008
UQAM, Montreal, Quebec Columbia

Deuxième congrès Canada-France 2008 Hôte : Université de Montréal

2 – 6 juin 2008
UQAM, Montréal, Québec

CMS Winter 2007 Meeting Host: University of Western Ontario

December 8 – 10, 2007
Hilton Hotel, London, Ontario

Réunion d'hiver 2007 de la SMC Hôte : Université d'Ouest Ontario

8 – 10 décembre 2007
Hôtel Hilton, London, Ontario

CMS/CSHPM Summer 2009 Meeting Host: Memorial University of Newfoundland

June 2009
St. John's, Newfoundland

Réunion d'été 2009 de la SMC et de la SCHPM Hôte : Université Memorial

juin 2009
St. John's, Newfoundland

Second CMS/SMM Meeting 2009 Host: PIMS

August 2009

Deuxième réunion conjointe de la SMC/SMM 2009 Hôte : PIMS

août 2009

CMS Winter 2009 Meeting Host: University of British Columbia

December 2009
Vancouver, British Columbia

Réunion d'hiver 2009 de la SMC Hôte : Université de la Columbie-Britannique

décembre 2009
Vancouver, Columbie-Britannique

CMS Summer 2010 Meeting Host: University of New Brunswick

June 2010
Fredericton, New Brunswick

Réunion d'été 2010 de la SMC Hôte : Université de Nouveau-Brunswick

juin 2010
Fredericton, Nouveau-Brunswick

Numéros antérieurs du BCM et du JCM	Back Issues of the CMB and CJM
<p>Nous souhaitons remercier les généreux membres qui ont fait don des numéros antérieurs du Journal canadien de mathématiques (JCM) et du Bulletin canadien de mathématiques (BCM) qu'il nous manquait dans le cadre du projet de numérisation des anciens numéros de ces deux revues.</p>	<p>We wish to thank those members who generously donated some of the back issues of the Canadian Journal of Mathematics (CJM) and the Canadian Mathematical Bulletin that were required for a project involving the destructive scanning of back issues of the CJM and CMB.</p>
<p>Il nous manque encore quelques numéros pour avoir deux séries complètes de chaque revue.</p>	<p>A small number of back issues are still required to complete two sets for each journal.</p>
<p>Voici la liste des numéros manquants (et le nombre d'exemplaires dont nous avons besoin) :</p>	<p>The details of the issues still required (and the number needed) are given as follows:</p>
<p>JCM-1976 - Volume 28 numéro 3 (un exemplaire)</p>	<p>CJM-1976 - Volume 28 issue 3 (one needed)</p>
<p>BCM-1959 - Volume 2 numéro 2 (un exemplaire)</p>	<p>CMB-1959 - Volume 2 issue 2 (one needed)</p>
<p>BCM-1959 - Volume 2 numéro 3 (un exemplaire)</p>	<p>CMB-1959 - Volume 2 issue 3 (one needed)</p>
<p>BCM-1963 - Volume 6 numéro 1 (deux exemplaires)</p>	<p>CMB-1963 - Volume 6 issue 1 (2 needed)</p>
<p>BCM-1963 - Volume 6 numéro 2 (deux exemplaires)</p>	<p>CMB-1963 - Volume 6 issue 2 (2 needed)</p>
<p>BCM-1964 - Volume 7 numéro 1 (un exemplaire)</p>	<p>CMB-1964 - Volume 7 issue 1 (one needed)</p>
<p>BCM-1964 - Volume 7 numéro 2 (un exemplaire)</p>	<p>CMB-1964 - Volume 7 issue 2 (one needed)</p>
<p>BCM-1967 - Volume 10 numéro 3 (un exemplaire)</p>	<p>CMB-1967 - Volume 10 issue 3 (one needed)</p>
<p>BCM-1984 - Volume 27 numéro 1 (un exemplaire)</p>	<p>CMB-1984 - Volume 27 issue 1 (one needed)</p>
<p>Si vous avez un ou l'autre de ces anciens numéros à donner à la SMC, veuillez communiquer avec Graham Wright (613-562-5702 ou directeur@smc.math.ca) pour obtenir de plus amples renseignements ou pour organiser l'envoi des documents.</p>	<p>If you are willing to donate copies of any of the above issues to the CMS, please contact Graham Wright (Tel: 613-562-5702 and email: director@cms.math.ca) for more information and to make appropriate delivery arrangements.</p>
<p>Un grand merci de votre collaboration à cet important projet.</p>	<p>Many thanks for your help with this important project</p>
<p>David Rogers, Président - Comité des services électroniques de la SMC</p>	<p>David Rogers, Chair - CMS Electronic Services Committee</p>
<p>Graham Wright, Directeur administratif de la SMC</p>	<p>Graham Wright, CMS Executive Director</p>

WANTED: Books for Review RECHERCHÉS : Livres pour critiques littéraires

Have you written a book lately?

Would you like to see it reviewed in the CMS Notes? If so, please arrange to have a review copy sent to our Book Review Editor.

Vous avez récemment écrit un livre? Vous aimerez une critiques littéraires de celui-ci dans les Notes de la SMC? Si oui, veuillez faire parvenir une copie au rédacteur des critiques littéraires.

Peter Fillmore
 Department of Mathematics
 and Statistics
 Dalhousie University
 Halifax NS B3H 3J5

The Nominating Committee wishes to announce its initial list of candidates for the 2007 elections. Each candidate named has agreed to stand for the position indicated and to furnish the committee with the biographical information requested.

Further nominations are sought and will be accepted by the Nominating Committee provided: (i) that each such person is supported in writing by at least five other members of the Society; (ii) that the person has given written acceptance to stand for office and to supply the biographical information which will be requested by the Nominating Committee and (iii) that the information sought in (i) and (ii) is received by March 2, 2007.

Additional nominations together with supporting materials should be sent to the address below:

Le comité des mises en candidature a établi la liste initiale des candidats pour les élections de 2007. Chaque personne sur la liste a accepté d'être candidat(e) et de fournir au comité les renseignements biographiques désirés. Les mises en candidature supplémentaires sont sollicitées et seront acceptées par la Comité des mises en candidature pourvu : (i) que la personne ait reçu l'appui par écrit d'au moins cinq autres membres de la Société; (ii) que la personne ait accepté par écrit d'être candidate et de fournir les renseignements biographiques qui lui seront demandés par le Comité; et (iii) que les renseignements prévus aux (i) et (ii) nous parviennent avant le 2 mars 2007.

Les mises en candidatures supplémentaires avec documents à l'appui doivent être envoyées à l'adresse ci-dessous.

Nominating Committee Chair / Président du Comité des mises en candidatures

Canadian Mathematical Society
Société mathématique du Canada
577 King Edward, Ottawa, Ontario K1N 6N5

INITIAL SLATE / CANDIDATS PROPOSÉS

Executive Committee / Comité exécutif

President Elect / Président élu

(2007-2008) :

President / Président Anthony Lau (Alberta)

(2008-2010) :

Past President / Président sortant

(2010-2011) :

Vice Presidents / Vice-présidents (2007-2009)

Western Provinces and Territories / Provinces de l'Ouest et territoires:

Rachel Kuske (UBC)

Ontario : Catherine Sulem (Toronto)

Quebec / Québec : Yvan Saint-Aubin (Montreal)

Atlantic Provinces / Provinces de l'Atlantique :

Gordon MacDonald (PEI)

Board of Directors / Conseil d'administration (2007-2009)

Atlantic / l'Atlantique (2 to be elected / 2 à élire)

Robert Gallant (Sir Wilfred Grenfell College)
Roman Smirnov (Dalhousie)
Xiaqiang Zhao (Memorial)

Quebec / Québec (2 to be elected / 2 à élire)

Octav Cornea (Montreal)
Vojkan Jaksic (McGill)
Marco Bertola (Concordia)

Ontario (3 to be elected / 3 à élire)

Nantel Bergeron (York)
Andre Boivin (Western)
Anna Lawniczak (Guelph)
Greg Smith (Queen's)

West / l'Ouest (3 to be elected / 3 à élire)

Chris Bose (Victoria)
Clifton Cunningham (Calgary)
Douglas Farenick (Regina)
Volker Runde (Alberta)

At large / de l'ensemble des membres (1 to be elected / 1 à élire)

Alan Dow (North Carolina at Charlotte)

CONTINUING MEMBERS / LES MEMBRES QUI CONTINUENT

The members elected in 2005 and continuing on the Board of Directors until June 30, 2009 are:
Les membres élus en 2005 qui demeurent au conseil d'administration jusqu'au 30 juin 2009 sont :

West / l'Ouest

Michael Bennett (UBC)
Imen Chen (Simon Fraser)
Jennifer Hyndman (UNBC)

Ontario

Victor LeBlanc (Ottawa)
Matthias Neufang (Carleton)
Robert McCann (Toronto)

Atlantic / Atlantique

Franklin Mendivil (Acadia)
David Pike (Memorial)

Quebec / Québec

Olivier Collin (UQAM)
Javad Mashreghi (Laval)

At large / de l'ensemble des membres

Ravi Vakil (Stanford)

Au moment où j'écris ces lignes, les trois instituts mathématiques canadiens ont présenté leurs demandes de renouvellement de financement (à la hausse) au *Conseil de recherches en sciences naturelles et en génie* (CRSNG) et se préparent aux visites sur le terrain. Au moment où vous lirez ces lignes, ces visites seront terminées, et la communauté mathématique attendra la décision du CRSNG. Comme vous le savez sans doute, la communauté a participé à un long processus auprès du CRSNG concernant le mécanisme par lequel les instituts recevraient désormais leur financement. C'est ce processus qui a mené au concours actuel, où nos instituts ont présenté 3 des 84 demandes dans le cadre du nouveau **Programme d'appui aux ressources majeures** (ARM). Une partie de la pression exercée sur ce programme est due aux projets initialement financés par la *Fondation canadienne pour l'innovation* (FCI), dont les instigateurs cherchent maintenant du financement stable et continu auprès du CRSNG. Le gouvernement du Canada doit trouver une façon de poursuivre sur la lancée de la FCI sans pénaliser d'autres initiatives tout aussi importantes. On s'attend à ce que l'*Association pour l'avancement de la recherche mathématique en Atlantique* (AARMA) fasse sa première demande de financement à l'ARM l'an prochain.

Les programmes du CRSNG n'étant jamais statiques, il est en train de se dessiner une nouvelle problématique à laquelle la communauté mathématique canadienne doit continuer de sensibiliser le CRSNG. On s'attend à ce que les subventions de recherche individuelles soient réduites cette année. Compte tenu du peu de financement neuf injecté et du grand nombre de nouveaux chercheurs dynamiques qui font une première demande de subvention, il est difficile de voir comment il pourrait en être autrement. Qui plus est, une grande réorganisation des Comités de sélection des subventions (CSS) est prévue dans le but d'améliorer l'évaluation de la **recherche interdisciplinaire**. Comme toute personne qui a assisté à une Réunion de la SMC ces dernières années l'aura constaté, la recherche mathématique est beaucoup plus interdisciplinaire que jamais. Des groupes comme le Réseau MITACS et les instituts de recherche mathématique contribuent à faire de notre domaine le domaine le plus interdisciplinaire du milieu scientifique canadien. Les mathématiques sont un catalyseur des autres disciplines. La réorganisation du CRSNG aura donc des effets démesurés sur les mathématiques, et il sera particulièrement important pour les mathématiciens que le Canada le comprenne bien. De même, les mathématiciens sont aussi très bien placés pour formuler des commentaires utiles sur la nouvelle structure des CSS. Le CRSNG avance rapidement pour être prêt pour le concours de 2008-2009.

Des efforts considérables ont été déployés pour rehausser le niveau des sciences au Canada (par ex. : le CRDE ou le *Programme des chaires de recherche du Canada*), afin d'assurer la compétitivité du Canada dans les années à

venir. Il est essentiel que notre gouvernement trouve les ressources qui lui permettront de continuer à stimuler la créativité de nos jeunes chercheurs. Cette dynamique « disciplinaire » n'est qu'un aspect du modèle de financement du CRSNG, qui oriente la transition vers la recherche interdisciplinaire. Un autre aspect est le « coût de la recherche ». La SMC espère collaborer avec le CRSNG à l'établissement d'un barème équitable pour calculer le **coût de la recherche mathématique**. Les mathématiques sont sous-financées depuis toujours par rapport à de nombreuses autres disciplines, et il est essentiel que le nouveau modèle du CRSNG ne perpétue pas simplement ce déséquilibre. Une contribution ciblée de la communauté mathématique aidera le CRSNG à établir des mécanismes de financement équitables et durables. Il faut en outre faire valoir clairement auprès du gouvernement la valeur de la recherche mathématique et scientifique pour faire en sorte qu'il y ait suffisamment de financement pour faire fonctionner les mécanismes adoptés.

La **Réunion d'hiver de la SMC** vient tout juste de prendre fin à Toronto. Quelle réussite! La Société doit une fière chandelle aux commanditaires, organisateurs et conférenciers pour le franc succès de la rencontre. Nous devons toutefois remercier tout particulièrement nos hôtes de l'**Université de Toronto**, **Ian Graham** (directeur de la Réunion) et **Erich Ellers** (président du comité de logistique), de tout le travail accompli avant la tenue de l'événement pour assurer le bon déroulement de la Réunion.

Le banquet de la Réunion de Toronto nous a donné l'occasion de remercier l'un de nos commanditaires les plus fidèles, la **Financière Sun Life**. C'est la 60e année que la Sun Life appuie la SMC, une relation presque aussi ancienne que la SMC elle-même. La Sun Life contribue à la vitalité de nos concours mathématiques et décerne tous les ans la Coupe Sun Life au grand gagnant de l'Olympiade mathématique du Canada. **Dikran Ohannessian** (vice-président et premier directeur financier) et **Linda MacKenzie** (directrice, philanthropie) ont accepté les remerciements de la SMC au banquet. L'allocution de M. Ohannessian est retranscrite dans le présent numéro des Notes.

Le banquet nous a également donné l'occasion de féliciter nos lauréats : **Malcolm Harper** (Champlain College), prix G. de B. Robinson; **Peter Taylor** (Queen's), prix Adrien-Pouliot; **Michael Newman** (Waterloo), Prix de doctorat; **Andrew Granville** (Montréal), prix Jeffery-Williams; **Richard Kane** (Western), Prix pour service méritoire et prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière. Invités pour l'occasion, David et Bessie Borwein ont dévoilé la magnifique sculpture de bronze réalisée par **Helaman Ferguson** attribuée au lauréat du prix David-Borwein. Cette œuvre d'art, inspirée des travaux de David Borwein, de ses fils et de ses collègues,

représente une surface de courbure négative liée à une suite conditionnellement convergente.

Le banquet nous a aussi permis de souligner le 80e anniversaire de **S. Swaminathan** et d'offrir nos sincères remerciements à **Arthur Sherk** pour 13 années de loyaux services à la trésorerie de la Société. Quatre présidents, deux trésoriers et un directeur administratif de la SMC ont souligné la contribution exceptionnelle d'Arthur. Les directeurs des instituts ont à leur tour annoncé qu'ils avaient décerné le prix CRM-Fields-PIMS à **Joel Feldman** (UBC).

La réunion du conseil d'administration de la SMC a été marquée par la signature d'une entente officielle avec la **Société mexicaine de mathématiques**, représentée par **Fernando Brambila**. On y a également annoncé la création d'un fonds qui servira à défrayer les étudiants aux cycles supérieurs qui assistent à nos Réunions. Ce fonds a été créé grâce à un généreux don de l'**Université de Lethbridge**, à la mémoire d'un cher collègue, **Jim Liu**, qui a connu une mort tragique dans un accident de voiture en janvier 2006. Les détails concernant ce fonds seront annoncés sous peu.

Lors de cette même réunion, les membres ont pris connaissance des plans de la Société pour recruter un nouveau directeur administratif. **Graham Wright** occupe

ce poste de façon admirable depuis 1979. L'espace dont je dispose ici étant beaucoup trop restreint pour décrire avec justesse l'influence remarquable qu'a eue Graham sur la Société durant cette période, je garderai ce sujet pour une occasion où je pourrai véritablement lui rendre justice. J'ajouterais simplement que Graham a accepté, dans sa grande générosité, de demeurer à la barre de la SMC jusqu'au 1er juillet 2008, et que les démarches pour lui trouver un successeur sont en cours. Vous trouverez d'ailleurs l'appel à candidatures pour ce poste dans le présent numéro.

Le programme scientifique de la Réunion n'a certes pas manqué d'intérêt lui non plus. Nous avons accueilli plus de 425 participants et présenté 18 sessions, trois conférences de lauréats, une excellente conférence populaire donnée par **Kumar Murty** (Toronto) intitulée *What is a proof* (Qu'est-ce qu'une preuve) et des conférences de **Brent Davis**, **Dmitry Dolgopyat**, **Dimitri Shlyakhtenko**, **Karen Smith**, **Susan Tolman** et **Shmuel Weinberger**.

J'ai déjà très hâte à la Réunion d'été de Winnipeg, que nous tiendrons en collaboration avec le Réseau **MITACS** du 31 mai au 3 juin 2007 hôte par l'**Université du Manitoba**. Vous aurez droit à un congrès de grande envergure et à un programme couvrant un large éventail de sujets mathématiques. Au plaisir de vous y retrouver!

NSERC - CMS Math in Moscow Scholarships

The Natural Sciences and Engineering Research Council (NSERC) and the Canadian Mathematical Society (CMS) supports scholarships at \$9,000 each. Canadian students registered in a mathematics or computer science program are eligible.

The scholarships are to attend a semester at the small elite Moscow Independent University.

Math in Moscow Program

www.mccme.ru/mathinmoscow/

Application details

www.cms.math.ca/bulletins/Moscow_web/

For additional information please see your department or call the CMS at 613-562-5702.

Two scholarships will be awarded in the spring competition. Deadline **March 30, 2007** to attend the Fall 2007 semester



Bourse CMS/CRSNG Math à Moscou

Le Conseil de Recherches en Sciences Naturelles et en Génie du Canada (CRSNG) et la Société mathématique du Canada (SMC) offrent des bourses de 9,000 \$ chacune. Les étudiantes ou étudiants du Canada inscrit(e)s à un programme de mathématiques ou d'informatique sont éligibles.

Les bourses servent à financer un trimestre d'études à la petite université d'élite Moscow Independent University.

Programme Math à Moscou

www.mccme.ru/mathinmoscow/

Détails de soumission

www.cms.math.ca/bulletins/Moscou_web/

Pour plus de renseignements veuillez communiquer avec votre département ou la SMC au 613-562-5702.

Deux bourses seront attribuées au concours du printemps. Date limite le **30 mars 2007** pour le trimestre d'automne 2007



CALL FOR NOMINATIONS / APPEL DE MISES EN CANDIDATURE

The CMS Research Committee is inviting nominations for three prize lectureships. These prize lectureships are intended to recognize members of the Canadian mathematical community.

Le Comité de recherche de la SMC lance un appel de mises en candidatures pour trois de ses prix de conférence. Ces prix ont tous pour objectif de souligner l'excellence de membres de la communauté mathématique canadienne.

Prix Coxeter-James Prize Lectureship

2008

The Coxeter-James Prize Lectureship recognizes young mathematicians who have made outstanding contributions to mathematical research. The selected candidate will deliver the prize lecture at the Winter Meeting.

The recipient shall be a member of the Canadian mathematical community. Nominations may be made up to ten years from the candidate's PhD: researchers having their PhD degrees conferred in 1997 or later will be eligible for nomination in 2007 for the 2008 Coxeter-James Prize. A nomination can be updated and will remain active for a second year unless the original nomination is made in the tenth year from the candidate's Ph.D.

Le prix Coxeter-James rend hommage à l'apport exceptionnel à la recherche de jeunes mathématiciens. La personne choisie présentera sa conférence à la Réunion d'hiver.

Le récipiendaire doit être membre de la communauté mathématique canadienne. Un candidat est admissible jusqu'à dix ans après l'obtention de son grade de troisième cycle : les chercheurs ayant obtenu leur doctorat en 1997 ou après peuvent poser leur candidature en 2007 pour le prix Coxeter-James de 2008. Les propositions pourront être mises à jour et demeureront actives pendant un an, à moins que la mise en candidature originale ne corresponde à la dixième année d'obtention du doctorat.

Prix Jeffery-Williams Prize Lectureship

2009

The Jeffery-Williams Prize Lectureship recognizes mathematicians who have made outstanding contributions to mathematical research. The prize lecture will be delivered at the Summer Meeting. The recipient shall be a member of the Canadian mathematical community. A nomination can be updated and will remain active for three years.

Le prix Jeffery-Williams rend hommage à l'apport exceptionnel à la recherche de mathématiciens d'expérience. Les lettres de mise en candidature devraient inclure les noms d'au moins trois répondants possibles ainsi qu'un curriculum vitae récent, si disponible. Le récipiendaire doit être membre de la communauté mathématique canadienne. Il est possible de proposer la candidature d'une personne qui a obtenu son doctorat il y a au plus dix ans.

Prix Krieger-Nelson Prize Lectureship

2009

The Krieger-Nelson Prize Lectureship recognizes outstanding research by a female mathematician. The prize lecture will be delivered at the Summer Meeting. The recipient shall be a member of the Canadian mathematical community. A nomination can be updated and will remain active for two years.

Le prix Krieger-Nelson rend hommage à l'apport exceptionnel à la recherche de mathématiciennes. Les propositions pourront être mises à jour et demeureront actives pendant deux ans. Le récipiendaire doit être membre de la communauté mathématique canadienne. Les propositions pourront être mises à jour et demeureront actives pendant deux ans.

The deadline for nominations is **June 30, 2007**. Letters of nomination should be sent to the address below:
La date limite pour les mises en candidature est le **30 juin 2007**. Faire parvenir vos lettres à l'adresse suivante :

Nominators should ask at least three referees to submit letters directly to the Chair of the CMS Research Committee by September 30, 2007. Some arms length referees are strongly encouraged. Nomination letters should list the chosen referees, and should include a recent curriculum vitae for the nominee, if available.

La personne qui présente un candidat doit demander à au moins trois personnes de faire parvenir une lettre de référence au président du Comité de la recherche de la SMC, au plus tard le 30 septembre 2007. Les lettres d'indépendants sont fortement recommandées. Le dossier de candidature comprendra la liste des personnes choisies à titre de référence ainsi qu'un curriculum vitae récent du candidat, dans la mesure du possible.

J.F. Jardine, Chair / Président
CMS Research Committee / Comité de recherches de la SMC
Department of Mathematics
The University of Western Ontario
London, Ontario N6A 5B7 Canada

The 2007 Krieger-Nelson and Jeffrey-Williams Prizes will be presented at the CMS-MITACS Joint Conference 2007 in Winnipeg, Manitoba, May 31 to June 3.
Les prix Krieger-Nelson et Jeffrey-Williams 2007 seront présentés à la Congrès conjoint MITACS-SMC 2007 à Winnipeg (Manitoba) du 31 mai au 3 juin.

CALL FOR NOMINATIONS / APPEL DE MISES EN CANDIDATURE

Prix Adrien-Pouliot Prize Lectureship

2007

Nous sollicitons la candidature de personnes ou de groupe de personnes ayant contribué de façon importante et soutenue à des activités mathématiques éducatives au Canada. Le terme « contributions » s'emploie ici au sens large; les candidats pourront être associés à une activité de sensibilisation, un nouveau programme adapté au milieu scolaire ou à l'industrie, des activités promotionnelles de vulgarisation des mathématiques, des initiatives, spéciales, des conférences ou des concours à l'intention des étudiants, etc.

Les candidatures doivent nous être transmises via le « Formulaire de mise en candidature » disponible au site Web de la SMC : www.cms.math.ca/Prix/info/ap. Pour garantir l'uniformité du processus de sélection, veuillez suivre les instructions à la lettre. Toute documentation excédant les limites prescrites ne sera pas considérée par le comité de sélection.

Il est possible de renouveler une mise en candidature présentée l'an dernier, pourvu que l'on en manifeste le désir avant la date limite. Dans ce cas, le présentateur n'a qu'à soumettre des documents de mise à jour puisque le dossier original a été conservé. Les mises en candidature doivent parvenir au bureau de la SMC avant le **30 avril 2007**. Veuillez faire parvenir vos mises en candidature en six exemplaires à l'adresse ci-dessous :

Nominations of individuals or teams of individuals who have made significant and sustained contributions to mathematics education in Canada are solicited. Such contributions are to be interpreted in the broadest possible sense and might include: community outreach programmes, the development of a new program in either an academic or industrial setting, publicizing mathematics so as to make mathematics accessible to the general public, developing mathematics displays, establishing and supporting mathematics conferences and competitions for students, etc.

Nominations must be submitted using the Nomination Form available from the CMS Web site at: www.cms.math.ca/Prizes/info/ap. To assure uniformity in the selection process, please follow the instructions precisely. Documentation exceeding the prescribed limits will not be considered by the Selection Committee.

Individuals who made a nomination in 2006 can renew this nomination by simply indicating their wish to do so by the deadline date. Only materials updating the 2006 Nomination need be provided as the original has been retained. Nominations must be received by the CMS Office no later **April 30, 2007**. Please send six copies of each nomination to the address given below.

The Adrien Pouliot Award / Le Prix Adrien-Pouliot
Canadian Mathematical Society / Société mathématique du Canada
577 King Edward
Ottawa, Ontario K1N 6N5

Distinguished Service Award / Prix de la SMC pour service méritoire

2007

In 1995, the Society established this award to recognize individuals who have made sustained and significant contributions to the Canadian mathematical community and, in particular, to the Canadian Mathematical Society.

Nominations should include a reasonably detailed rationale and be submitted by **March 31, 2007**, to the address below.

En 1995, la Société mathématique du Canada a créé un prix pour récompenser les personnes qui contribuent de façon importante et soutenue à la communauté mathématique canadienne et, notamment, à la SMC.

Pour les mises en candidature prière de présenter des dossiers avec une argumentation convaincante et de les faire parvenir, **le 31 mars 2007** au plus tard, à l'adresse ci-dessous :

Selection Committee / Comité de sélection
Distinguished Service Award / Prix pour service méritoire
Canadian Mathematical Society / Société mathématique du Canada
577 King Edward
Ottawa, Ontario K1N 6N5

The 2007 Adrien-Pouliot and Distinguished Service Awards will be presented at the CMS Winter 2007 Meeting in London, ON, December 8 to 10. Les prix pour service méritoire et Adrien-Pouliot seront présentés à la Réunion d'hiver 2007 de la SMC à London (Ontario), du 8 au 10 décembre.

CALENDAR OF EVENTS / CALENDRIER DES ÉVÉNEMENTS

MARCH

2007

MARS

- 4-8** Twelfth International Conference on Approximation Theory (Menger Hotel, San Antonio, TX)
www.math.vanderbilt.edu/~at07/at07.html
-
- 10-13** TComplex Cobordism in Homotopy Theory: its impact and prospects (Johns Hopkins University, Baltimore, MD)
www.lehigh.edu/~at07/at07.html
-
- 15-17** "Seminar on Stochastic Processes", Fields Institute. See
www.fields.utoronto.ca/programs/scientific/06-07/ssp2007/
-
- 19-23** Representation of Surface Groups (AIM Research Conference Center, Palo Alto, CA)
www.aimath.org/ARCC/workshops/surfacegroups.html
-
- 19-23** "Motives and Algebraic Cycles" dedicated to the mathematical heritage of Spencer J. Bloch. Fields Institute (co-organized with the Clay Mathematics Institute)
-
- 29-31** The Forty-First Spring Topology and Dynamics Conference 2007 (University of Missouri-Rolla MO)
<http://web.umr.edu/~stdc2007/>

- 19-Apr 4** International conference on Language and Automata Theory and Applications (LATA 2007) (Tarragona, Spain) www.grammars.grlmc.com/LATA2007

APRIL

2007

AVRIL

- 14-15** AMS Regional Meeting (Stevens Institute of Technology, Hoboken, NJ)
www.ams.math.org/meetings/

- 22-27** The Mathematics of Electricity Supply and Pricing: Industry workshop plus short course(Surfers Paradise, Queensland Australia)
www.amsi.org.au/electricity.php

MAY

2007

MAY

- 7-9** "Adaptive Dynamics in Theory and Practice", Fields Institute Workshop, University of Ottawa:
www.mathstat.uottawa.ca/%7Efluts037/FIELDS/fieldsworkshop.html
-
- 14-18** "Stacks in geometry and topology", Fields Institute Thematic Program; workshop
-

- 18-20** The 2007 Midwest Geometry Conference (MGC 2007) (University of Iowa, Iowa City, IA) www.emis.de/journals/SIGMA/

- 20-24** The CAIMS Annual Meeting (Banff Conference Centre)

- 26-30** "Homotopy theory of schemes", Fields Institute Thematic Program; workshop

- 21-23** Applications of Analysis to Mathematical Biology (Duke University, Durham, NC) www.math.duke.edu/conference/AAM07

- 22-26** Extremal problems in complex and real analysis (Peoples Friendship University of Russia, Moscow,Russia)
www.albany.edu/~pb6916/, stessin@math.albany.edu

- 29-Jun 1** The Fourth International Conference on Mathematical Biology (Wuyishan City, Fujian, P.R. China) www.csmb.org.cn/

- 30-Jun 2** Fifth Internationals Conference of Dynamic Systems and Applications (Morehouse College, Atlanta, GA)
www.dynamicpublishers.com/icdsa5.htm,
icdsa5@yahoo.com

- 31-Jun 3** CMS-MITACS Joint Conference 2007, Host: University of Manitoba; Delta Hotel, Winnipeg, Manitoba
www.cms.math.ca/events, meetings@cms.math.ca

JUNE

2007

JUIN

- 18-23** Combinatorics and Optimization 40th Anniversary Conference (University of Waterloo, Waterloo, ON)
www.math.uwaterloo.ca/Cand_Dept/Conference/40thConference.shtml

- 24-Jul 1** 45th International Symposium on Functional Equations (Bielsko-Biala, Poland) romanger@us.edu.pl, knikodem@ath.bielsko.pl

JULY

2007

JUILLET

- 2-6** Design Theory of Alex Rosa, a meeting in celebration of Alex Rosa's 70th birthday (Bratislava, Slovakia)
www.dumrn.edu/~dfroncek/alex/index.htm

- 4-8** International Conference on Nonlinear Operators, Differential Equations and Applications (ICNODEA 2007) (Bolyai University, Cluj-Napoca, Romania)
www.dumrn.edu/~dfroncek/alex/index.htm

- 10-14** The Twenty-Second IEEE Symposium on Logic in Computer Science (LICS 2007) (Wroclaw, Poland)
www.dumrn.edu/~dfroncek/alex/index.htm

- 15-17** Seminar on Stochastic Processes, (Fields Institute, Toronto)
www.fields.utoronto.ca/programs/scientific/06-07/ssp2007/

- 16-20** 6th International Congress on Industrial and Applied Mathematics (Zurich, Switzerland) www.iciam07.ch

CALENDAR OF EVENTS / CALENDRIER DES ÉVÉNEMENTS

16-22 The 8th International Conference on Fixed Point Theory and its Applications (Ching Mai University, Thailand)
www.math.science.cmu.ac.th/ICFPTA2007/

19-23 Motives and Algebraic Cycles, A Conference Dedicated to the Mathematical Heritage of Spencer J. Bloch (Fields Institute, Toronto) Co-organized by the Clay Mathematics Institute
www.fields.utoronto.ca/programs/scientific/06-07/homotopy/

26-30 Workshop on Homotopy Theory of Schemes (Fields Institute, Toronto)
www.fields.utoronto.ca/programs/scientific/06-07/homotopy/

27-29 4th Joint meeting of the Canadian Society for History and Philosophy of Mathematics/Société canadienne d'histoire et de philosophie des mathématiques and the British Society for the History of Mathematics (Concordia University) www.csphm.org

29-Aug 4 29-Apr 4 International Conference on language and automata, LATA 2007, (Tarragona, Spain)
<http://www.grammars.grlmc.com/LATA2007/>

31-Aug 3 First Joint International Meeting between the AMS and the Polish Mathematical Society (Warsaw, Poland)
www.ams.org/amsmtgs/internmtgs.html

SEPTEMBER **2007** **SEPTEMBRE**

17-21 "Free Probability, Random Matrices, and Planar Algebras" (Fields Institute workshop)
www.fields.utoronto.ca/programs/scientific/07-08/operator_algebras/

OCTOBER **2007** **OCTOBRE**

29-Nov 2 "Von Neumann Algebras" (Fields Institute workshop)
www.fields.utoronto.ca/programs/scientific/07-08/operator_algebras/

NOVEMBER **2007** **NOVEMBRE**

12-16 "Structure of C*-Algebras" (Fields Institute workshop)
www.fields.uu.se

DECEMBER **2007** **DÉCEMBRE**

12-15 First Joint International Meeting between the AMS and the New Zealand Mathematical Society (NZMS) (Wellington, New Zealand)
www.ams.org/amsmtgs/internmtgs.html

8-10 **CMS Winter 2007 Meeting, Host: University of Western Ontario; Hilton Hotel, London, Ontario**
www.cms.math.ca/events_meetings@cms.math.ca

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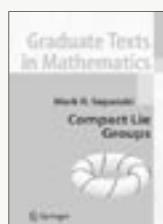
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