



CMS NOTES de la SMC

FROM THE PRESIDENT-ELECT'S DESK Jacques Hurtubise, McGill

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When I was contacted and asked about being nominated for president, I felt very flattered, asked if I was supposed to be running against someone else (no - how polite!), thought a bit about my other commitments, then said yes. Easy. Then of course one starts asking oneself what one is supposed to do, what are the guiding themes of what the CMS does, and what would success (and of course failure) be.

In the world of business schools, this gets translated into questions about what our mission is, what our strategic priorities are, and what our measurable impacts are. These questions are often answered in rather fuzzy and meaningless statements (or rather choice less: in what conceivable world would one strive for non-excellence?) or slogans (recall the scene in the film *The Graduate* in which Dustin Hoffman is given the one word "Plastics"). And yet buried beneath all of this, there is some wisdom, in that in the process one brings

NOW WHAT?

into the conscious world the ideas and values that are held in common, but were unvoiced. The result might seem a bit tautologous, but it serves as a guide in concrete choices.

Might as well get started; so here goes for a two-word encapsulation of the CMS: a Scientific Community. Of course. That's it. Done. Back to work.

Nothing surprising; and yet it is true. We do most of our mathematics alone, or in small groups, or in classes; on the other hand, jokes about mathematicians aside, we are social beings, and like to communicate our results to others. We have common experiences, and problems, which we like to share and discuss. We have common interests that we want to put forward together. We promote and develop the interaction of our piece of the scientific landscape with the rest of science. To a degree that is unusual among scientific communities, we are preoccupied with extending our passion for our subject to students at all levels. The CMS contributes to all of this, and is indeed our main common resource, covering the terrain both physical and intellectual that in other

countries are the remit of several organisations.

In our research, the Society's meetings are of course now complemented within Canada by a wide variety of events, in particular at the Mathematics Institutes. These other workshops are all focussed on special topics, however, and the CMS meetings remain the main locus in the country for keeping abreast of our discipline at large. Our journals also participate in this, and have articles of consistently high quality. Of course, we all take part in the international world of science; but this is our home, and we work at mathematics here, and do it quite well.

One important side of the CMS' activity is the promotion of mathematics in schools and more generally among the public at large. It is an aspect I am still learning about, and I must say that our work here is quite impressive, whether in the mathematics contests and Olympiads, or in the problems journals, or in the various educational fora or forums run throughout the country. The people who work at this do it for the fun, out of love for our subject and for teaching, but there is

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Absent-mindedness: Searching for the horse you are riding.

- Russian proverb (Left-handed dictionary)

Imagine the following scenarios: Professor A walks into the class-room and starts writing on the black-board. Then, on turning around, he finds bewildered strange faces. Professor B walks three blocks to another building for her class and when about to begin her class she finds that she had brought the wrong set of notes and assignment papers; about fifteen to twenty minutes of class time would be spent in going back to rectify the situation. Professor C hits upon a new idea around midnight regarding a research problem he had been working on for some time. He decides to go to his office and works at his desk, oblivious of passing time, until a secretary knocks at his door and tells him that students are waiting for his 8:30 am class.

These scenarios are true instances of simple absent-mindedness. Many mathematicians and other scientists are prone to experience such situations sometime or other due to extreme preoccupation. The earliest example is that of Archimedes and his marching out in the streets straight from the bath tub shouting 'Eureka' upon his discovery of the first law of hydrostatics. We know from Plutarch's narration that he was so absorbed with a geometrical problem at the time when a Roman soldier commanded old Archimedes to follow him to Marcellus, who had stormed Syracuse and taken it, he shouted *Noli turbare circulos meos* (do not upset my circle) whereupon the soldier killed him. Girolamo Cardano, Italian mathematician of the 16th century, who published a treatise on algebra containing Tartaglia's algebraic solution of cubic equations, was once upon a journey, so lost in thought, that he forgot his way and the object of his journey; to questions of his driver whither he should proceed, he gave no answer and he was surprised to find the carriage at a standstill, at nightfall, directly under a structure of gallows!

There are apocryphal stories of absent-mindedness of Isaac Newton, David Hilbert, Norbert Wiener and Albert Einstein. Newton is reported to have possessed remarkable powers of concentration and spent long hours in writing the Principia with consequent loss of sleep and indifference to food. Hilbert was once asked by his wife to go upstairs and change his dress; he did so, but changed into pajamas and went to sleep. It is said that when Einstein received his first check as a member of the IAS, Princeton, he used the back of the check for figuring out a math problem and eventually lost it as waste paper!

The following is illustrative of the many stories of Wiener as an eccentric, super-brainy, absent-minded professor: He drove in his car from Cambridge (Massachusetts) to Yale University to attend a meeting at the conclusion of which he took a bus back. Finding that the car was not in its place the next morning he notified the police that it had been stolen while he was away at Yale.

It must be noted that absent-mindedness is not attributed to all mathematicians equally. Some mathematicians are subjects of many such stories, even including stories that are probably apocryphal; others are not. We do not find absent-mindedness stories told about, for example, Leonard Euler, G. H. Hardy, or Emmy Noether. No doubt some of those who do attract stories really were (or are) unusually absent-minded; but it may also, to some extent, be a stereotype connected with the public image of a certain sort of academic.

It can happen that absent-mindedness is due to more than lapses of attention and is caused by memory failures. Then it is serious problem. Psychologists and psychiatrists have devoted much research to this problem.

CMS Excellence in Teaching Award for post-secondary undergraduate teaching in Mathematics

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www.smc.math.ca/Prix

Date limite pour soumettre une candidature :
15 novembre 2009

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Le comble de la distraction, c'est de chercher le cheval que l'on monte.

- Russian proverb (Left-handed dictionary)

Imaginez les scénarios suivants : Le professeur A entre dans sa classe et commence à écrire au tableau. En se retournant, il constate que ses étudiants lui jettent des regards remplis de perplexité. La professeure B fait trois coins de rue pour se rendre à son cours. Une fois en classe et prête à commencer, elle s'aperçoit qu'elle n'a pas apporté les bonnes notes de cours ni les bons devoirs. Elle perdrait quinze ou vingt minutes de cours si elle décidait de retourner chercher les bons documents. Le professeur C trouve, aux alentours de minuit, une nouvelle idée pour résoudre un problème auquel il travaille depuis un certain temps. Il décide d'aller travailler à son bureau, mais il perd complètement la notion du temps jusqu'à ce qu'une secrétaire frappe à sa porte pour lui signifier que ses étudiants l'attendent pour son cours de 8 h 30.

Ces trois scénarios sont des exemples véridiques de simple distraction. Les mathématiciens et autres scientifiques sont sujets à de tels épisodes lorsqu'ils sont trop préoccupés. L'exemple célèbre le plus ancien est celui d'Archimète, qui sortit subitement de la baignoire et parcourut les rues en criant « *Eurêka!* » après avoir découvert la première loi de l'hydrostatique. Plutarque a raconté qu'Archimète était si absorbé par un problème de géométrie vers la fin de sa vie que, quand un soldat romain l'a sommé de le suivre jusqu'à Marcellus, qui avait pris Syracuse, il a crié *Noli turbare circulos meos* (ne dérangez pas mon cercle), et le soldat qui l'amenait l'a tué. Il y a aussi l'histoire de Girolamo Cardano, ce mathématicien italien du XVI^e siècle qui a publié un traité contenant la solution algébrique de Tartaglia aux équations cubiques. Lors d'un voyage, Cardano était si absorbé dans ses pensées qu'il en a oublié son chemin et l'objet de son voyage. N'ayant jamais répondu aux questions du cocher quant à sa destination, il eut la surprise de se retrouver, à la nuit tombée, immobile sous la structure d'un échafaud!

Des histoires non documentées circulent aussi sur des distractions d'Issac Newton, David Hilbert, Norbert Wiener et Albert Einstein. On dit que Newton possédait une capacité de concentration phénoménale et qu'il passait de longues heures à écrire ses Principes, sans dormir ou se nourrir. On raconte aussi que Hilbert, à qui son épouse avait demandé de retourner dans sa chambre pour se changer, s'est effectivement changé, mais il a enfillé son pyjama et s'est mis au lit. Ou encore qu'en recevant son premier chèque de l'Institute for Advanced Study de Princeton, Einstein s'est servi du verso du chèque pour résoudre un problème de mathématiques, et le chèque s'est retrouvé à la poubelle!

L'histoire suivante est elle aussi à l'image des nombreux récits dépeignant Wiener comme un professeur excentrique, super intelligent et très distrait : Il prit un jour sa voiture pour se rendre de Cambridge (Massachusetts) à l'Université Yale pour assister à une réunion, mais sauta dans un autobus pour rentrer chez lui à la fin de la rencontre. Ne trouvant pas sa voiture à sa place le lendemain matin, il appela la police en disant qu'on avait volé sa voiture pendant qu'il était à Yale.

Soulignons toutefois que la distraction des mathématiciens n'est pas un fait universel. Il est très possible que certaines des histoires ci-dessus ne soient pas véridiques. On ne trouve nulle part d'histoire de ce genre à propos de Leonard Euler, G. H. Hardy ou Emmy Noether par exemple. Sans doute que ceux qui générèrent ce genre d'histoire sont (ou étaient) exceptionnellement distraits, mais c'est peut-être aussi, dans une certaine mesure, un stéréotype associé à l'image publique de certains scientifiques.

Il arrive aussi que la distraction soit attribuable non pas à de simples manques d'attention, mais à des troubles de mémoire, beaucoup plus graves, auxquels psychologues et psychiatres consacrent de nombreuses heures de recherche.

NOTES DE LA SMC

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Mathematicians of the World, Unite!

by Guillermo P. Curbera

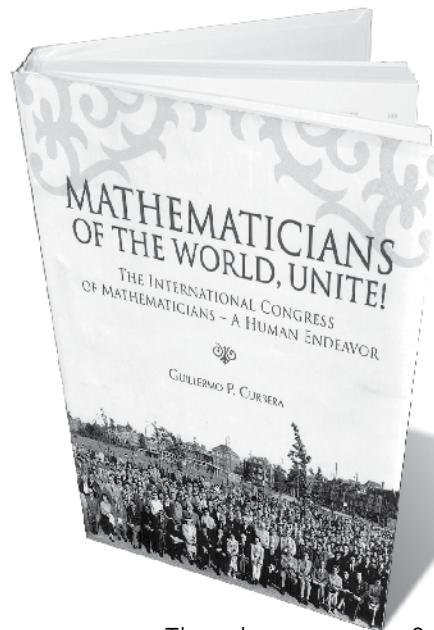
A.K. Peters Ltd., xvii+326 pp, 2009 \$70.95 CDN,
ISBN 978-1-56881-330-1

Reviewed by Renzo Piccinini, Dalhousie University

This book, which starts with a foreword by Lennart Carleson, is a description of the 25 International Congresses of Mathematicians, giving the places where the ICMs were held, an overview of the main episodes related to each ICM, the names and sometimes comments about the plenary speakers and the names of the Field medalists. It contains a large number of pictures and is done in a very attractive way. The ICMs are divided into five groups: I - Early Times: Zürich 1897, Paris 1900, Heidelberg 1904, Rome 1908, Cambridge 1912; II - Crisis in the interwar period: Strasbourg 1920, Toronto 1924, Bologna 1928, Zürich 1932, Oslo 1936; III - The golden era: Cambridge, MA, 1950, Amsterdam 1954, Edinburgh 1958, Stockholm 1962; IV - On the road: Moscow 1966, Nice 1970, Vancouver 1974, Helsinki 1978, Warsaw 1982, Berkeley 1986; V - In a global world: Kyoto 1990, Zürich 1994, Berlin 1998, Beijing 2002, Madrid 2006.

The book includes four interesting "Interludes", sort of promenades between the serious affairs of the Congresses (it reminds me of Moussorgsky's Pictures at an Exhibition). These are: Images of the ICM (about posters and stamps connected to the ICMs since the 1897 Congress); Awards of the ICM (describes the story of the Fields Medal, the Nevanlinna Prize and the Gauss Prize); Buildings of the ICM (pictures of the main buildings where the ICMs were held); Social life at the ICM. There is also a "Coda" International Mathematical Union in which the author briefly explains how the IMU came to be. Before describing the Strasbourg Congress of 1920 the author makes a reference to the International Research Council (IRC), created by the Allied powers in 1919 in order to coordinate international efforts in different branches of science and its applications, and to initiate the formation of international associations useful to the progress of science. The President of the IRC was the American astronomer George Ellery Hale and the Vice-President was the distinguished Italian mathematician Vito Volterra (see [2] and [3]); there is a mistake on page 69 of the book which claims that the President of the IRC was the French mathematician Émile Picard. All in all, it is an interesting and relaxed reading.

To complete, I relate an episode of the 1954 Amsterdam congress that came to my attention recently. One of the invited plenary lecturers at the 1954 ICM was John von Neumann; as a key note speaker, he was asked to give a repeat of the famous speech by Hilbert at the Paris ICM of 1900. The title of von Neumann's talk announced in the program was



Unsolved Problems in Mathematics; the talk was delivered, but the lecture was not published in the Proceedings of the Congress. What happened? The answer is given to us by Freeman Dyson (see [1]) who described the situation as follows:

"I know what happened, because I was there in the audience, at 3:00

p.m. on Thursday, September 2, 1954, in the Concertgebouw concert hall. The hall was packed with mathematicians, all expecting to hear a brilliant lecture worthy of such historic occasion. The lecture was a huge disappointment. Von Neumann had probably agreed several years earlier to give a lecture about unsolved problems and had then forgotten about it. Being busy with many other things, he had neglected to prepare the lecture. Then, at the last moment, when he remembered that he had to travel to Amsterdam and say something about mathematics, he pulled an old lecture from the 1930s out of a drawer and dusted it off. The lecture was about rings of operators, a subject that was new and fashionable in the 1930s. Nothing about unsolved problems. Nothing about the future. Nothing about computers, the subject that we knew was dearest to von Neumann's heart. He might at least have had something to say about computers. The audience in the concert hall became restless. Somebody said in a voice loud enough to be heard all over the hall "Aufgewärmte Suppe", which is German for "warmed-up soup". In 1954 the great majority of mathematicians knew enough German to understand the joke. Von Neumann, deeply embarrassed, brought his lecture to a quick end and left the hall without waiting for questions."

References

- [1] Freeman Dyson - *Birds and Frogs*, Notices of the AMS, Volume 56, Number 2, February 2009 (212-223), American Mathematical Society, Providence.
- [2] Judith R. Goodstein - *The Volterra Chronicles* - The life and times of an extraordinary mathematician 1860-1940, AMS and LMS, Providence 2007.
- [3] Salvatore Coen - *La vita di Vito Volterra vista anche nella varia prospettiva di biografie più o meno recenti*, La Matematica nella Società e nella Cultura, Serie I, Vol. I, Dicembre 2008, (443-476), Unione Matematica Italiana 2008, Bologna.

NEWS FROM THE FIELDS INSTITUTE

Our future **Thematic Programs** are:

- Quantitative Finance, winter term, 2010.

There will be four workshops:

Foundations of Mathematical Finance, January 11-15.
Numerical and Statistical Methods in Finance, March 22-24.

Financial Econometrics, April 23-24.

Financial Derivatives and Risk Management, May 24-28.

There will also be at least four "Industrial-Academic Forums", bringing together financial experts from the business and academic worlds, and the 6th World Congress of the Bachelier Finance Society will be held June 22-26 in conjunction with the thematic program. And the 14th International Congress on Insurance: Mathematics and Economics will be held June 17 – 19, 2010.

www.fields.utoronto.ca/programs/scientific/09-10/finance

- *Mathematics of Drug Resistance in Infectious Diseases*, summer term, 2010.

www.fields.utoronto.ca/programs/scientific/10-11/drugresistance

- *Dynamics and Transport in Disordered Systems*. Winter/Spring term, 2011.

www.fields.utoronto.ca/programs/scientific/10-11/disorderedsys

- *Discrete Geometry and Applications*. Fall term, 2011
www.fields.utoronto.ca/programs/scientific/11-12/discretegeom

- *Galois Representations*. Winter/Spring term, 2012
www.fields.utoronto.ca/programs/scientific/11-12/galoisrep

For other events, not connected with our thematic programs, please see the "Calendar of Events" at the end of these Notes.

Deadlines and information for proposals and financial assistance can be found:

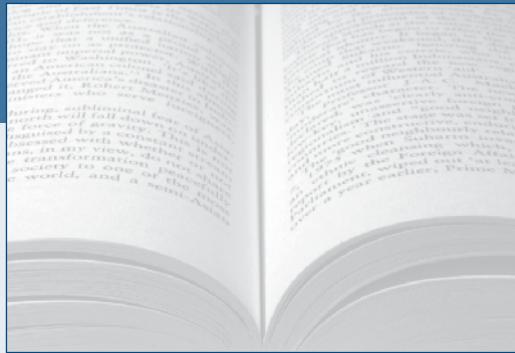
www.fields.utoronto.ca/proposals/

For more information on all activities at the Institute, please see

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Vous aimeriez une critiques littéraires de celui-ci dans les Notes de la SMC? Si oui, veuillez faire parvenir une copie au rédacteur des critiques littéraires.

Keith Johnson, Department of Mathematics and Statistics, Dalhousie University, Halifax NS B3H 3J5

The Mathematical Mechanic

by Mark Levi, Princeton University Press 2009
186 p. ISBN 978-0-691-14020-9 \$19.95 US

Mrs. Perkins's Electric Quilt

by Paul J. Nahin, Princeton University Press 2009, xxix+391p.
ISBN 978-0-691-13540-3 \$29.95 US

These two books from Princeton both explore connections between mathematics and the physical world although in completely different ways and with different audiences in mind. Nahin's book, aimed at the enthusiastic science or mathematics undergraduate, probes more deeply into some of the standard topics of elementary physics courses examining the simplifying assumptions and showing what sophisticated mathematics is needed to see what is really going on. Levi's book on the other hand is devoted to applying physics (mostly mechanics) to mathematics and is aimed squarely at a mathematical audience.

Nahin's choice of topics is fairly broad and to appreciate all of them requires either at least an undergraduate minor in physics or some extra reading. The effect of air drag in ballistics problems, infinite electrical circuits, Kepler's and Newton's understanding of gravity, the Riemann zeta function in physics and various problems involving random walks all are covered. The book's title refers to the problem of filling a square with squares of varying sizes. Nahin describes a connection of this with resistor networks and Ohm's law originally discovered by William Tutte and 3 coworkers.

Levi's book opens with a proof using hydrostatics of the Pythagorean theorem and ranges widely from there, establishing theorems by representing them as physical situations whose behavior can be analyzed using known physical laws. Optimization problems, integral computations, the Euler-Lagrange equations, even the Gauss-Bonnett theorem fall to this method. The last of these uses a mechanical system involving a bicycle wheel. The book concludes with a 20-page summary of the physics needed.

Hexaflexagons, Probability, Paradoxes and the Tower of Hanoi

by Martin Gardner, MAA and Cambridge University Press 2008, xiii + 193 p. ISBN 978-0-521-75615-0 \$50.00
hardcover, ISBN 978-0-521-73525-4, \$14.99 paper

Origami, Eleusis and the Soma Cube

by Martin Gardner, MAA and Cambridge University Press 2008, xi + 234 p. ISBN 978-0-521-75610-0, \$50.00
hardcover, ISBN 978-0-521-73524-7, \$14.99 paper

Between 1957 and 1986 Martin Gardner wrote the Mathematical Games column for Scientific American; certainly the most widely-read and influential column on mathematics for a general audience in North America. Gardner regularly published collections of these columns but most of these are now long out of print and so the MAA in conjunction with

Cambridge University Press has started to reissue these collections in a uniform format. There will be 15 volumes in all of which these are the first two. They have been re-edited with new artwork and, for each column, a postscript bringing the topic up-to-date. Some of the earliest columns contain dated peripheral comments (who now remembers Harry Truman's opinion of Adlai Stevenson?) however the mathematics is timeless and fascinating. Polyominoes, Hexaflexagons, the Towers of Hanoi, Sam Loyd's puzzles, Dr. Matrix... it's all here waiting for a new generation of readers.

A Guide to Complex Variables

by Stephen G. Krantz, Dolciani Mathematical Expositions #32
MAA Guide #1, MAA, 2008, xviii + 182 p.
ISBN 978-0-88385-338-2 \$49.95 US

A Guide to Advanced Real Analysis

by Gerald B. Folland, Dolciani Mathematical Expositions #37
MAA Guide #2, MAA 2009, x + 106 pp.
ISBN 978-0-88385-343-6 \$49.95

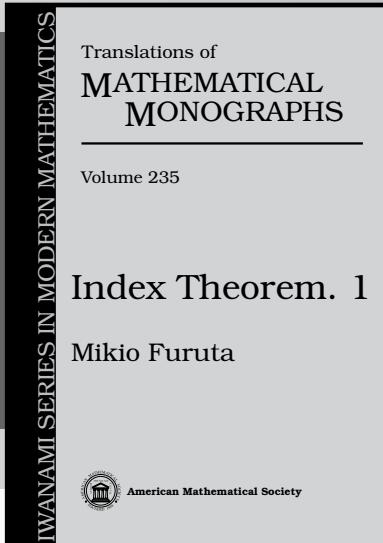
A Guide to Real Variables

by Stephen G. Kratz, Dolciani Mathematical Expositions #38
MAA Guide #3 - MAA 2009, xvi + 145 p.
ISBN 978-0-88385-344-3 \$49.95

A Guide to Topology,

by Steven G. Krantz, Dolciani Mathematical Expositions #40 MAA Guide #4, MAA 2009, xii + 106 p
ISBN 978-0-88385-346-7 \$49.95

The MAA's Dolciani series is one of the most successful collections of monographs aimed at the mathematically literate undergraduate. The editors have now decided to add to this series a subseries of guides to various branches of mathematics suitable for graduate students preparing for comprehensive exams. Each is a thin volume presenting the material in the syllabus for such an exam briefly with no exercises and few examples. Such guides can be extremely useful in general. For many years this reviewer has used part 1 of Steen and Seebach's *Counterexamples in Topology* as such a summary of the essentials of point set topology and is prepared to replace it with Krantz's more comprehensive volume #4 of this series. On the other hand for comprehensive exam preparation there are two potential weaknesses. Comprehensive exam syllabii are far from standardized. At my own university the syllabus for our non-specialist analysis comprehensive exam is covered by volumes 1 and 2 in this series (complex analysis and advanced real analysis) however universities where topics in geometric analysis such as Stoke's or deRham's theorem are included will not find these volumes adequate. Also, students must look elsewhere for the supply of practice problems which are so useful in such exam preparation. Fortunately, each volume does include an excellent bibliography which will direct the student to sources for these.



Translations of MATHEMATICAL MONOGRAPHS SERIES

This series contains works of advanced mathematical research and exposition translated primarily from Japanese and Russian. It also includes a subseries that contains original works translated from publisher Iwanami Shoten (Tokyo).

Index Theorem. 1

Mikio Furuta, *University of Tokyo, Japan*

The book is well organized... The strategy of the proof and applications are clearly laid out. ...this monograph is an important contribution to the subject.

—*Mathematical Reviews*

A detailed, accessible presentation of a theorem that marked the beginning of a completely new direction of mathematical research

(Iwanami Series in Modern Mathematics), Volume 235; 2007; 205 pages; Softcover; ISBN: 978-0-8218-2097-1; List US\$39; AMS members US\$31; Order code MMONO/235

Geometry of Differential Forms

Shigeyuki Morita, *University of Tokyo, Japan*

(Iwanami Series in Modern Mathematics), Volume 201; 2001; 321 pages; Softcover; ISBN: 978-0-8218-1045-3; List US\$59; AMS members US\$47; Order code MMONO/201

Methods of Information Geometry

Shun-ichi Amari, *RIKEN Brain Science Institute, Saitama, Japan*, and Hiroshi Nagaoka, *University of Electro-Communications, Tokyo, Japan*

Volume 191; 2000; 206 pages; Softcover; ISBN: 978-0-8218-4302-4; List US\$79; AMS members US\$63; Order code MMONO/191.S

Value Distribution of Meromorphic Functions

Anatoly A. Goldberg, *Bar-Ilan University, Ramat Gan, Israel*, and Iossif V. Ostrovskii, *Bilkent University, Ankara, Turkey*, and *Institute of Low Temperature Physics, Ukrainian Academy of Sciences, Kharkiv, Ukraine*

Volume 236; 2008; 488 pages; Hardcover; ISBN: 978-0-8218-4265-2; List US\$129; AMS members US\$103; Order code MMONO/236

Operator Algebras and Geometry

Hitoshi Moriyoshi, *Keio University, Yokohama, Japan*, and Toshikazu Natsume, *Nagoya Institute of Technology, Japan*

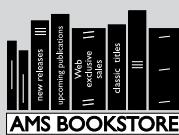
Volume 237; 2008; 155 pages; Hardcover; ISBN: 978-0-8218-3947-8; List US\$69; AMS members US\$55; Order code MMONO/237

Algebraic Topology: An Intuitive Approach

Hajime Sato, *Nagoya University, Japan*

(Iwanami Series in Modern Mathematics), Volume 183; 1999; 118 pages; Softcover; ISBN: 978-0-8218-1046-0; List US\$29; AMS members US\$23; Order code MMONO/183

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Sharing Mathematics: A Tribute to Jim Totten

by John Grant McLoughlin (UNB), Rick Brewster (TRU) and Fae DeBeck (TRU)



In March 2008 the mathematical community lost a dear colleague, Dr. James Totten. We wish to celebrate Jim's spirit by hosting a conference in his honour from May 13-15, 2009 at Thompson Rivers University (TRU) in Kamloops. The conference includes a public lecture, outreach activities for

the whole community as well as invited and contributed talks with published proceedings.

The above announcement on the conference website (www.tru.ca/sharingmath) gives a sense of the spirit in which Fae DeBeck and Rick Brewster (both of TRU) co-chaired the organization of this event. The conference was held in a manner that celebrated mathematics and honoured the sharing of ideas. *Sharing Mathematics* featured an array of talks around three broad themes, each of which held meaning to Jim: outreach activities; problem solving/recreational mathematics; and teaching. Presenters included colleagues from the host department (Dennis Acreman, Rick Brewster, Daryl Funk, Lesley Robinson, and Adriana Stefan), students, and others from various institutions mainly from within the BC math community. A complete set of abstracts follows this expository piece.

A special touch to the event was the participation of TRU colleagues, past and present, in many capacities, including John Ciriani, Kirk Evenrude, John Siggers and Bruce Crofoot as session chairs. Also, Jim would have appreciated the connections present with Harley Weston (who taught Jim in Regina in 1967), Bill Sands (the CRUX editor when Jim first joined the board in 1994), and Robert Woodrow (a colleague at University of Saskatchewan in 1978 before their respective moves to Kamloops and Calgary). The inclusive and community oriented spirit was a credit to both Jim Totten and the department at Thompson Rivers University, chaired by Shane Rollans. Participants were provided with several problems books thanks to the support of CMS, NSERC Pacific, PIMS, University of Waterloo, Memorial University of Newfoundland, Thompson Rivers University, and the BC Committee on the Undergraduate Program in Mathematics and Statistics (BCCUPMS). Arrangements have also been made to provide participants with copies of the special issue of *CRUX Mathematicorum with Mathematical Mayhem* dedicated to Jim Totten. Jim served on the editorial board for about 14 years including more than five years as Editor-in-Chief up to his passing early in 2008. The special issue, published in Sept 2009, would be of interest to friends of Jim and interested problem solvers in the CMS community.

Sharing Mathematics opened on Wednesday evening with a public lecture reaching out to the community. Among the attendees were Lynne Totten, personal friends, and colleagues of Jim's from his career in Kamloops. The talk by John Grant McLoughlin entitled *A Mathematical Musing: Wonder, Elegance, and Beauty of Numbers*, brought attention to the playful side of mathematics. The conference program continued throughout the day on Thursday and for the morning on Friday with about fifteen presentations concurrently offered in two venues, in addition to a panel discussion on outreach.

Thursday and Friday opened with invited plenary talks. Harley Weston addressed outreach in a talk entitled *Some New Initiatives at Math Central* (to appear in a future *Education Notes*). Subsequently Jennifer Hyndman's presentation shifted the focus to teaching with a talk entitled *Hands-free Teaching* (published in the October issue of the *Education Notes*). Further details on the conference appear at the website, and a forthcoming publication of proceedings will serve as a record of the event along with a means of offering anecdotes or essays in tribute to Jim Totten. People are welcome to contact Rick Brewster (rbrewster@tru.ca) or John Grant McLoughlin (johngm@unb.ca) for more information on the conference or the forthcoming proceedings.

Jim Totten would have enjoyed the spirit and participatory nature of the conference. The event itself also marked the beginning of a new chapter in the BC community. Discussion in the closing session pointed to a desire for continuation of the *Sharing Mathematics* idea in conjunction with future articulation events in BC. Hence, a second *Sharing Mathematics* event will be held in May 2010 in Burnaby.

Plenary Talks

A Mathematical Musing: Wonder, Elegance, and Beauty of Numbers

John Grant McLoughlin, University of New Brunswick

The world of numbers is filled with intriguing ideas and patterns. Beneath the surface are mathematical ideas waiting to be unearthed. The presentation brings attention to the beauty and the elegance underlying numbers including curiosities (e.g. $2592 = 2^5 \times 9^2$), visual connections to shapes (circles, triangles, squares), and unfamiliar takes on common processes such as multiplication. Problem solving, number tricks, poetry, and anecdotes will be woven through the talk to open the door into various facets of the wonder of numbers.

The public lecture is offered in a spirit of outreach intended for anyone who may (or who may not yet) enjoy mathematics. High school students, teachers, armchair math puzzlers, the TRU community and friends of Jim Totten are all welcome.

Some New Initiatives at Math Central

Harley Weston, University of Regina

I will present a brief overview of Math Central (MathCentral.uregina.ca) and then talk about two initiatives taking place this summer. One has the working title of *Mathematics and Indigenous People* and the other involves the *Industrial*

Problem Solving Workshop sponsored by the Pacific Institute for the Mathematical Sciences.

Hands-free Teaching

Jennifer Hyndman, University of Northern British Columbia

Teaching in a mathematics classroom without using my hands led to some expected and some unexpected outcomes. I experimented with tools that are now commonly used in blended classes and I used teaching strategies that gave me great insight into student learning but taught the students little. My views on teaching were fundamentally and irrevocably changed by not being able to use standard techniques for teaching mathematics. I'll discuss what techniques I've kept and what I'll never do again.

Contributed Talks

Mathematics 142 – Mathematics for Visual Arts

Dennis Acreman, Thompson Rivers University

This course is designed to present topics from Mathematics which are relevant in a Visual Arts context. These topics include techniques which are useful to artists such as ratio and proportion, and compass and straightedge constructions but also topics that discuss how Mathematics and Art have a very long history of intellectual connections such as in the Cubist movement and in the symbolic use and interpretations of numbers.

In this talk I will explore some of these ideas, show some sample assignments and most importantly, show some examples of student artwork which have been produced for this course. I view this course as a good example of Jim Totten's view that Mathematics is for everyone and can be shared in a positive and rewarding way.

Coming together through mathematics: Mathematics as an individual and cultural endeavour

Melania Alvarez-Adem, Pacific Institute of the Mathematical Sciences

Different ways of approaching a mathematical problem do not provide different solutions. However a richer and deeper knowledge of mathematics can be attained by looking at the many different ways individuals and/or cultures produce a solution to a mathematical problem. The Pacific Institute for the Mathematical Sciences has developed a variety of outreach programs that have brought together mathematicians, teachers and aboriginal people through respecting others ways of learning and knowing.

From Elementary School to University: Ideas for Mathematical Enrichment

Deanna Baxter and Lisa Lajeunesse, Capilano University

Capilano University has a long history of participating in mathematics outreach activities that target three main groups of students: elementary, secondary and 1st and 2nd year university students.

This overview of our outreach activities will describe how the hosting of the High School Math Contest led to the creation

of monthly enrichment sessions for local high school students with mathematical topics drawn from outside the standard high school curriculum.

More recently, we began regularly hosting a SNAP Math Fair in which university-level students studying math education reach out to primary school students through puzzles and games based on mathematical problem solving. We will show a brief documentary filmed at Capilano University during our second SNAP math fair. The documentary includes interviews with faculty, elementary school teachers, and some of the university and primary students involved.

Finally, we will discuss some outreach activities designed to engage 1st and 2nd year university students. This level of student has been more difficult to reach and we will share some of our failures and successes as well as our ideas for the future.

The Relationship between Missing Graded Homework and Student Outcomes for Undergraduate Mathematics Courses

Lorraine Dame, University of Victoria

What factors significantly correlate with a student missing graded homework and what relationship does missing graded homework have with failure outcomes in university level first year math? Data from an anonymous in-class survey were used to analyze the correlation of math help and other factors at the University of Victoria (UVic) with the proportion of missing graded homework for these students. Course grade sheets for the spring term of 2008 were used to analyze the relationship between the proportion of missing graded homework and failure outcomes. The results of this analysis allow us to infer that an improvement in class attendance, individual performance satisfaction, number of suggested problems completed, satisfaction with math and stats support and frequency of visits to the assistance centre could have a positive influence on student success rates. These factors are predictors of a lower proportion of missing graded homework and students who miss less graded homework are also significantly less likely to fail.

This course is FANTastic!

Małgorzata Dubiel, Simon Fraser University

In response to the new SFU Admission requirements, SFU Department of Mathematics has created a course, FAN X99, Foundations of Analytic and Quantitative Reasoning. The course is a requirement for students entering SFU without a sufficient mathematics background. The philosophy behind the course can be described as "remedial through problem solving". We use problems to introduce mathematical concepts, foster mathematical thinking and keep students engaged. While the approach makes many students uneasy at the beginning of the course, it does change the attitudes of many of them; the title of the talk is a quote from one student's course evaluation. In the talk, I will describe how we teach the course, and will share some of our favourite problems.

Motivating Conceptual Learning through Mathematical Misconceptions

Nora Franzova, Langara College, and John Grant McLoughlin, University of New Brunswick

Surprising results challenge us to think in novel ways. Intuition is a wonderful thing and when the solution counters that intuition there is fertile ground for learning. Counterintuitive results offer a rich avenue for teaching conceptual ideas. The motivation for learning is enhanced through the engagement emerging from being surprised. An example of such a problem is offered here:

Suppose that a bin contains G green balls and R red balls. Two balls are to be selected without replacement. It is known that the probability of selecting one green and one red ball is exactly $1/2$. What do we know about the relationship between the number of green and red balls?

It is not often that permission is given to simply try a variety of problems knowing that the instinctive responses are likely to be wrong. That's encouraged as we play with a range of elementary problems and discuss the mathematics underlying the misconceptions. The pedagogical value of integrating such examples into the teaching of mathematics will also be discussed. Of course, there may be a problem with no surprises, but in this session you may not trust your intuition on that one.

Mathematics lecture techniques: Shock and Awe, Awe and Wonder

Daryl Funk, Thompson Rivers University

The mathematics lecture is often viewed as having to fulfill two opposing objectives: 1) a prescribed amount of content is to be delivered, and 2) students are to be motivated and inspired. Somehow the best lectures are able to reconcile these. As a student in his Winter 2007 Abstract Algebra class, I found Jim Totten's lectures did so. Viewing a mathematics lecture as *theatre* may provide a conceptual framework for thinking about lectures which both inform and inspire. Some lessons from Theatre Studies are considered, along with some implications for the mathematics lecture.

This talk draws heavily from two sources, the first being an article by Melissa Rodd, "Witness as Participation: the Lecture Theatre as Site for Mathematical Awe and Wonder" (*For the Learning of Mathematics*, March 2003). Secondly, my own reflections upon my experiences as a student, in particular as a student of Jim's, and as a lecturer, provide some thoughts on the mathematics lecture as theatre.

The Scheduling Consultants: Students' experiences working with the "real" world.

Ken Jones and Jon Ma, Thompson Rivers University (students)

As part of MATH 441 – Discrete Optimization, students are required to do a project with a community partner. We approached Dollarama with the hope of encountering an Inventory Problem that we could optimize based on rate of sales and store space. Reality was vastly different from what

we had dreamt. There were no in-store records of sales. The Store Manager admitted that he had no control over the incoming stock, with head office sending the stock they felt the store needed. So our hopes of crafting an elegant program were crushed.

We, nevertheless, forged ahead and encountered a very different and a very real problem faced by the store manager. In this talk I will outline the process we undertook, and the eventual problem we solved.

Mathematics and Critical Thinking

Lee L. Keener, University of Northern British Columbia

It is common to hear our colleagues deplore the apparent lack of critical thinking skills in many of their students, or sometimes in their peers. That wide-spread innumeracy (as John Paulos termed it) is a factor in this phenomenon seems clear. Intellectuals from Arthur Koestler to Karl Marx have been less than immune to attacks of the disease. It will be argued that mathematicians have an opportunity and even a responsibility to adopt strategies that enhance the critical thinking skills of our students and counter the siren song of pseudoscience. This can be done at all levels of the educational system and within the context of our discipline. Some modest suggestions for such strategies will be offered.

Exam Scheduling at TRU

Susan Kinniburgh and Laura Teshima, Thompson Rivers University (students)

Our project for MATH 441 – Discrete Optimization was to compute a conflict free exam schedule for Summer 2008. We wanted to apply our classroom knowledge to a real problem, and we also wanted to compete against the commercial scheduling software purchased by the university. The biggest challenge we faced were the limits imposed by the LINDO software package. In this talk we will describe the problem, the limitations imposed by LINDO, and our solution using a multistage process.

Exploring Mathematics Through A Combinatorial Game

Gary MacGillivray, Mathematics and Statistics, University of Victoria

The perfect-information pursuit game "Cops and Robber" will be used as an example to illustrate how advanced mathematical concepts can be introduced via easily accessible combinatorial games. Using a few notions from graph theory that will be described when they arise, topics like algorithms, characterizations, induction, quantifiers, relations, inequalities (bounds), generalization, and others will be raised, with the door left open for further exploration and discovery. Some unsolved problems will also be described.

Touchable Math - creating physical models to teach concepts in first-year math and stats courses.

Lesley Robinson, Thompson Rivers University

Many first-year students, particularly non-math-major students

taking math and stats courses, have trouble understanding various concepts and interpreting graphs and diagrams that might help their understanding. I have often wondered if these students could be helped by having tangible, physical 3d models that they could hold in their hands. I remember Jim telling me once that he planned to get involved in making wooden puzzles after he retired. This conference to honour Jim has inspired me to try my hand at creating some models, mostly in wood, using a scroll saw and a lathe. I will present some models, along with student exercises that could be used with the models and patterns that you can use to make your own models.

Proofs in Linear Algebra

Adriana Stefan, Thompson Rivers University

Open Learning University offers students university courses by correspondence, giving them the opportunity to study independently by following some guidelines and by consulting a tutor. Recently I have developed the Linear Algebra course, offered by OL. My goal was to help students make the transition from high school math courses, even calculus courses to linear algebra.

One big challenge for students taking linear algebra is to conduct proofs. To make them understand the nature, the need and the techniques of conducting proofs, I considered adding to their course material an appendix explaining some techniques used in general for proving a theorem or a statement and in particular used in Linear Algebra. In my talk I will present some of these techniques used to conduct proofs and some examples of such proofs applied to Linear Algebra.

The Calgary Math Circle: Journey to the International Mathematical Olympiad

Adrian Tang, University of Calgary

It is the dream of many high school math enthusiasts to participate in the International Mathematical Olympiad (IMO). The Calgary Math Circle was created in 2005 to nurture the mathematical talents of students in the Calgary area and prepare these students to succeed in mathematical olympiad competitions. With stories of triumph and setbacks, this talk is about my experience in organizing problem-solving sessions at the Calgary Math Circle. There are three main goals of this math circle: to teach the students mathematics and problem-solving skills required to succeed at the IMO and in their future careers, to teach the students how to communicate mathematics clearly in both verbal and written forms, and to motivate the students to learn mathematics independently beyond what is presented at the math circle. This talk will present the teaching strategies that helped two Calgary high school students successfully attain their dreams of winning medals at the IMO.



Worldwide Search for Talent

City University of Hong Kong aspires to become a leading global university, excelling in research and professional education. The University is committed to nurturing and developing students' talent and creating applicable knowledge in order to support social and economic advancement. Within the next five years, the University will employ another **200 scholars** in various disciplines including **science, engineering, business, social sciences, humanities, law, creative media, energy, environment, and biomedical & veterinary sciences**. Its Department of Mathematics has a strong mission to conduct first-class research in applied mathematics and provide high quality education in mathematics.

Applications are invited for:

Associate Professor/Assistant Professor Department of Mathematics [Ref. A/584/59]

Duties : Conduct research in areas of Applied Mathematics, teach undergraduate and postgraduate courses, supervise research students, and perform any other duties as assigned.

Requirements : A PhD in Mathematics/Applied Mathematics/Statistics with an excellent research record.

Salary and Conditions of Service
Remuneration package will be very attractive, driven by market competitiveness and individual performance. Excellent fringe benefits include gratuity, leave, medical and dental schemes, and relocation assistance (where applicable). Initial appointment will be made on a fixed-term contract.

Information and Application
Further information on the posts and the University is available at <http://www.cityu.edu.hk>, or from the Human Resources Office, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong [Fax : (852) 2788 1154 or (852) 3442 0311/email: hrojob@cityu.edu.hk]. Please send the application with a current curriculum vitae to Human Resources Office. **Applications will be considered until positions are filled.** Please quote the reference of the post in the application and on the envelope. The University reserves the right to consider late applications, and not to fill the positions. Personal data provided by applicants will be used for recruitment and other employment-related purposes.

CALL FOR NOMINATIONS 2010 Doctoral Prize

The CMS Doctoral Prize recognizes outstanding performance by a doctoral student. The prize is awarded to the person who received a Ph.D. from a Canadian university in the preceding year (January 1st to December 31st) and whose overall performance in graduate school is judged to be the most outstanding. Although the dissertation will be the most important criterion (the impact of the results, the creativity of the work, the quality of exposition, etc.) it will not be the only one. Other publications, activities in support of students and other accomplishments will also be considered.

Nominations that were not successful in the first competition, will be kept active for a further year (with no possibility of updating the file) and will be considered by the Doctoral Prize Selection Committee in the following year's competition.

The CMS Doctoral Prize will consist of an award of \$500, a two-year complimentary membership in the CMS, a framed Doctoral Prize certificate and a stipend for travel expenses to attend the CMS meeting to receive the award and present a plenary lecture.

Nominations

Candidates must be nominated by their university and the nominator is responsible for preparing the documentation described below, and submitting the nomination to the address below. No university may nominate more than one candidate and the deadline for the receipt of nominations is **January 31, 2010**.

The documentation shall consist of:

- A curriculum vitae prepared by the student.
- A resumé of the student's work written by the student and which must not exceed ten pages. The resumé should include a brief description of the thesis and why it is important, as well as of any other contributions made by the student while a doctoral student.
- Three letters of recommendation of which one should be from the thesis advisor and one from an external reviewer. A copy of the external examiner's report may be substituted for the latter. More than three letters of recommendation are not accepted.

APPEL DE MISES EN CANDIDATURE Prix de doctorat 2010

La SMC a créé ce Prix de doctorat pour récompenser le travail exceptionnel d'un étudiant au doctorat. Le prix sera décerné à une personne qui aura reçu son diplôme de troisième cycle d'une université canadienne l'année précédente (entre le 1er janvier et le 31 décembre) et dont les résultats pour l'ensemble des études supérieures seront jugés les meilleurs. La dissertation constituera le principal critère de sélection (impact des résultats, créativité, qualité de l'exposition, etc.), mais ne sera pas le seul aspect évalué. On tiendra également compte des publications de l'étudiant, de son engagement dans la vie étudiante et de ses autres réalisations.

Les mises en candidature qui ne seront pas choisies dans leur première compétition seront considérées pour une année additionnelle (sans possibilité de mise à jour du dossier), et seront révisées par le comité de sélection du Prix de doctorat l'an prochain.

Le lauréat du Prix de doctorat de la SMC aura droit à une bourse de 500 \$. De plus, la SMC lui offrira l'adhésion gratuite à la Société pendant deux ans et lui remettra un certificat encadré et une subvention pour frais de déplacements lui permettant d'assister à la réunion de la SMC où il recevra son prix et présentera une conférence.

Candidatures

Les candidats doivent être nommés par leur université; la personne qui propose un candidat doit se charger de regrouper les documents décrits aux paragraphes suivants et de faire parvenir la candidature à l'adresse ci-dessous. Aucune université ne peut nommer plus d'un candidat. Les candidatures doivent parvenir à la SMC au plus tard le **31 janvier 2010**.

Le dossier sera constitué des documents suivants :

- Un curriculum vitae rédigé par l'étudiant.
- Un résumé du travail du candidat d'au plus dix pages, rédigé par l'étudiant, où celui-ci décrira brièvement sa thèse et en expliquera l'importance, et énumérera toutes ses autres réalisations pendant ses études de doctorat.
- Trois lettres de recommandation, dont une du directeur de thèse et une d'un examinateur de l'extérieur (une copie de son rapport serait aussi acceptable). Le comité n'acceptera pas plus de trois lettres de recommandation.

Président du Comité de sélection du Prix de doctorat
Chair, Doctoral Prize Selection Committee
Société mathématique du Canada / Canadian Mathematical Society
105-1785 Alta Vista Drive
Ottawa, Ontario, Canada K1G 3Y6

Call for nominations and applications Deputy Director, Fields Institute

The Fields Institute carries on specialized year-long programs, seminars, workshops, short courses, and a broad spectrum of activities across the mathematical sciences. Through these activities it brings together experts, young mathematicians, and graduate students to work on issues of current interest.

The Deputy Director works closely with the director on all aspects of the institute's oversight and program development. The term of office is three to five years, commencing July 1, 2010. Qualified candidates should be mathematical scientists with good management skills, an excellent research record, and a strong interest in developing the programs of the Institute. Women and members of under-represented groups are encouraged to apply.

A brief letter of application or nomination and a CV should be sent to:

Edward Bierstone, Director
The Fields Institute
222 College Street, 2nd floor
Toronto, Ontario, Canada M5T 3J1

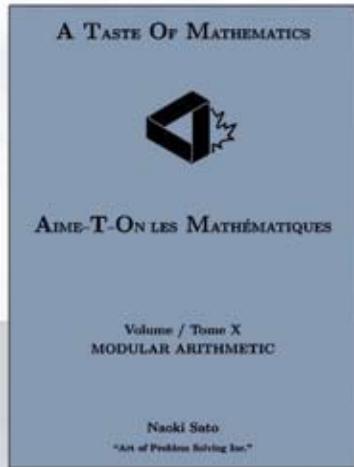
Search committee: Edward Bierstone, Tom Salisbury, Mary Thompson

Deputy Director Search, Fields Institute
222 College Street, Toronto
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www.smc.math.ca

some enlightened collective self-interest to it. Indeed, it is a direct source of the ongoing renewal of our discipline, as many of you no doubt know from having first thought that you could do this for a living after taking part in one of these activities as a student.

Our Society has evolved quite a bit since its early days. I urge all of you, by the way, to read some of the historical anecdotes that appear in the CMS' 50th anniversary volume; it is interesting and sometimes moving reading. I know that in the 25 or so years since I started, our community has developed enormously, both in quantity and in quality. The society has accompanied

this development, and contributed to it to a great degree.

Each decade, however, has its own questions, and its own challenges. Today is no exception. Our journals, for example, are facing the problems common to journals everywhere, of adapting to the age of the Internet, a problem exacerbated by the current recession; serious financial issues go along with this, as the journals have traditionally contributed to the CMS' coffers. (No, we don't make money on the meetings, as some of you might think as you pay the registration fee.) Membership, and the integration of new members, is another issue. We will

be reflecting, in a gentle sort of way and with your help, on these and many other things in the coming months. Most of them are of a concrete, nuts-and-bolts variety. Nevertheless, we should spare a bit of time to reflect, in the words in the top corner of one of Gauguin's most famous paintings, on "- D'où venons-nous? - Que sommes-nous? - Où allons-nous?"

EMPLOYMENT OPPORTUNITY



Fields Institute, Toronto, Canada
Postdoctoral Fellowships

Description: Applications are invited for postdoctoral fellowship positions for the 2010-2011 academic year. The 2010 (Fall) Thematic Program on Asymptotic Geometric Analysis will take place at the Institute July to December 2010 and the 2011 (Winter/Spring) Thematic Program on Dynamics and Transport in Disordered Systems will take place at the Institute from January to June 2011.

The fellowships provide for a period of engagement in research and participation in the activities of the Institute. In addition to regular postdoctoral support, one visitor for each six-month program will be awarded the Institute's prestigious Jerrold E. Marsden Postdoctoral Fellowship.

Applicants seeking postdoctoral fellowships funded by other agencies (such as NSERC or international fellowships) are encouraged to request the Fields Institute as their proposed location of tenure, and should apply to the Institute for a letter of invitation.

Eligibility: Qualified candidates who will have recently completed a PhD in a related area of the mathematical sciences are encouraged to apply.

Deadline: December 15, 2009 although late applications may be considered.

Application Information: Please consult www.fields.utoronto.ca/proposals/postdoc.html

The Fields Institute is strongly committed to diversity within its community and especially welcomes applications from women, visible minority group members, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.

DU BUREAU DU PRÉSIDENT-ÉLU

ET MAINTENANT?

Quand on m'a rejoint pour me demander de soumettre ma candidature à la présidence, j'ai d'abord été très flatté ; j'ai demandé si je devais concourir contre quelqu'un d'autre (non- quel organisme poli !) ; j'ai pensé un peu à mes autres engagements ; et j'ai dit oui. Facile. Mais ensuite, les questions surviennent : que dois-je faire ? que sont les principes directeurs ? qu'est ce que réussir (et donc échouer) ?

Dans le monde des écoles d'affaires, ces questions se répondent par des énoncés de mission, une liste des priorités stratégiques, et une liste de livrables. Les réponses, en même temps, sont souvent brumeuses, et vides de sens (ou plutôt vides de choix : dans quel univers cherche-t-on la non-excellence ?) ou se résument à un slogan (on se souvient du film *The Graduate*, où Dustin Hoffman reçoit le mantra "Plastics"). Et pourtant, submergé sous le verbiage, il y a un peu de sagesse, car le processus ramène souvent à la surface les idées et les valeurs communes, mais non verbalisées. Le résultat peut paraître tautologique, mais guide quand même nos choix concrets.

Aussi bien se lancer : voici donc la SMC en deux mots : une Communauté Scientifique. Voilà. Ouf. Bon, on retourne aux choses sérieuses.

Rien de surprenant, et pourtant c'est vrai. Nous faisons la plupart de notre travail en solitaire, ou en petits groupes, ou dans une classe ; par contre, blagues sur les mathématiciens à part, nous sommes des êtres sociaux, et aimons communiquer nos recherches à d'autres. Nous avons des expériences communes et des problèmes communs, que nous aimons partager et discuter. Nous avons des intérêts communs, que nous voulons promouvoir ensemble. Nous avançons et développons les interactions de notre part du paysage scientifique avec le reste. À un degré hors du commun, nous nous préoccupons de communiquer notre passion pour notre sujet à des étudiants de tous les niveaux. La SMC contribue à tout ceci, et est en effet notre principale ressource commune, couvrant des terrains physiques et intellectuels qui dans d'autres pays sont l'apanage de plusieurs sociétés.

En recherche, les réunions de la Société font maintenant partie d'une panoplie d'évènements, dont beaucoup ont lieu aux Instituts. Par contre, nos réunions restent le lieu principal dans le pays pour se tenir à jour dans la discipline en entier. Nos publications y participent aussi, avec des articles d'une qualité consistante et élevée. Naturellement, nous participons

tous au milieu scientifique international ; mais nous sommes ici chez nous, et nous y travaillons à nos mathématiques, plutôt bien d'ailleurs.

Un côté important de l'activité de la Société consiste en la promotion des mathématiques dans les écoles et dans la sphère publique. C'est un aspect avec lequel je me familiarise, et je dois dire que notre travail ici est très impressionnant, que ce soit dans les concours mathématiques et les Olympiades, ou dans les revues de problèmes, ou dans les forums sur l'éducation organisés à travers le pays. Les gens s'y consacrent par plaisir, et par passion pour leur sujet et pour son enseignement, mais nous y avons un intérêt collectif. En effet, ces activités sont une source directe du renouveau de notre discipline, comme beaucoup d'entre vous le savent d'expérience directe, en ayant d'abord pensé que vous pourriez faire ceci comme carrière après avoir participé à une de ces activités comme étudiant.

Notre Société a bien changé depuis ses débuts. Je vous suggère, en passant, de consulter quelques unes des anecdotes historiques que l'on retrouve dans le volume du cinquantenaire de la SMC. C'est une lecture intéressante et parfois émouvante. De mon expérience personnelle depuis environ 25 ans, je sais que notre communauté s'est développée énormément, à la fois en quantité et qualité. La Société a accompagné ce développement, et y a grandement contribué.

Chaque décennie, par contre, a ses questions, et ses défis. Nos temps n'y échappent pas. Nos périodiques, par exemple, font face au problème commun à tous les périodiques, c'est-à-dire de s'adapter à l'Internet, un problème exacerbé par la récession. Il y a des conséquences financières à tout ceci, car les périodiques ont depuis longtemps contribué aux finances de la Société. (Non, nous ne faisons pas d'argent de nos réunions, contrairement à ce que vous pourriez penser quand vous payés les frais d'inscription). Notre liste de membres, et l'intégration de nouveaux membres, est aussi une source d'inquiétudes. Nous comptons réfléchir au courant des prochains mois, à ces questions et à quelques autres, d'une façon tranquille et pondérée, et avec votre aide. La plupart des questions seront concrètes ; mais nous devrons quand même nous consacrer un peu à ces questions fondamentales du célèbre tableau de Gauguin : "- D'où venons-nous? - Que sommes-nous? - Où allons-nous?"

RÉUNION D'HIVER SMC 2009 CMS WINTER MEETING

December 5 - 7 décembre Windsor (Ontario)
www.cms.math.ca



The Canadian Mathematical Society (CMS) (www.cms.math.ca) and the University of Windsor (www.uwindsor.ca/math) invite the mathematical community to the 2009 CMS Winter Meeting. The program will include ten plenary, prize and public lectures, and a wide variety of sessions.

All scientific talks and social events will take place at the Hilton Hotel and the adjoining Radisson Hotel; the registration desk will be located in the Riverfront Club Room of the Hilton Hotel.

Prizes and Awards / Prix

Prix Coxeter-James Prize – Patrick Brosnan (UBC)
Prix de doctorat / Doctoral Prize – Mark Braverman (Toronto)
Prix Adrien Pouliot Prize – Walter Whiteley (York)
Prix G. de B. Robinson Award – Vladimir Manuilov (Moscow State University), Klaus Thomsen (Aarhus University)
Prix Graham-Wright pour service méritoire / Graham Wright Award for Distinguished Service – Christiane Rousseau (Montréal)

Host / Hôte
University of Windsor

Meeting Directors / Directeurs de la réunion
Dan Britten (Windsor, britten@uwindsor.ca),
Ejaz Ahmed (Windsor, seahmed@uwindsor.ca)

La Société mathématique du Canada (SMC) (www.smc.math.ca) et l'Université de Windsor (www.uwindsor.ca/math) invitent la communauté mathématique à la Réunion d'hiver 2009 de la SMC. Au programme : dix conférences (plénières, publique et de lauréats) ainsi qu'une grande diversité de sessions.

Toutes les activités scientifiques et sociales se dérouleront aux hôtels Hilton et Radisson (adjacents); la table d'inscription sera située dans la salle Riverfront Club du Hilton.

Public Lecture / Conférence publique

Alan H. Schoenfeld (Berkeley)

Plenary Speakers / Conférenciers pléniers
Jonathan Borwein (SFU)
Anthony To-Ming Lau (Alberta)
Naomi Leonard (Princeton)
Nancy Reid (Toronto)
Christine Shoemaker (Cornell)
David Vogan (MIT)

SESSIONS

Banach Algebras and Abstract Harmonic Analysis

Algèbres de Banach et analyse harmonique abstraite
Org: Zhiguo Hu, Mehdi Monfared (Windsor)

Complex Analysis

Analyse complexe
Org: André Boivin, Tatyana Foth (Western)

Convex and Variational Analysis

Analyse convexe et variationnelle
Org: Heinz Bauschke, Shawn Wang (UBC Okanagan)

Exact and Approximate Methods for Nonlinear Differential Equations

Méthodes exactes et approximatives pour la résolution des équations différentielles non-linéaires
Org: Alexei F. Cheviakov, George W. Patrick (Saskatchewan)

Lie Algebras and Representation Theory

Algèbres de Lie et théorie des représentations
Org: Nicolas Guay (Alberta), Michael Lau (Windsor)

Lie Groups and Automorphic Forms

Groupes de Lie et formes automorphiques
Org: Hadi Salmasian, Wai Ling Yee (Windsor)

Mathematical Models in Environmental Sciences

Modèles mathématiques en sciences environnementales
Org: Rick Caron (Windsor)

Mathematical Statistics

Statistiques mathématiques
Org: Jiahua Chen (UBC), Chi Song Wong (Windsor)

Mathematics Education

Éducation mathématique
Org: Dragana Martinovic (Windsor)

Matrix Theory and Statistics

Théorie matricielle et les statistiques
Org: Ejaz Ahmed, Abdul Hussein (Windsor)

Measure, Probability, and Stochastic Processes

Mesure, probabilité et processus stochastique
Org: Severien Nkurunziza, Tim Traynor (Windsor)

Non-Linear Control Theory

Théorie de contrôle non-linéaire
Org: Andrew Lewis, Abdol-Reza Mansouri (Queen's)

RÉUNION D'HIVER SMC 2009 CMS WINTER MEETING

Number Theory

Théorie des nombres

Org: Kevin Hare (Waterloo), Soroosh Yazdani (McMaster)

Operator Algebras

Algèbres d'opérateurs

Org: Mitja Mastnak (Saint Mary's), Dilian Yang (Windsor)

Real and Complex Singularities

Singularités en analyse réelle et complexe

Org: Janusz A. Adamus (Western)

Recent Trends in Discrete Geometry

Tendances récentes de la Géométrie discrète

Org: Károly Bezdek (Calgary), Antoine Deza (McMaster)

Contributed Papers

Communications libres

Org: to be determined / à venir

Business Meetings

Executive Committee: December 3

Development Group: December 4

Board of Directors: December 4

Séances de travail

Comité exécutif : 3 décembre

Groupe de développement : 4 décembre

Conseil d'administration : 4 décembre

Social Events

Reception: December 4, Hilton, Riverfront Club

Banquet: December 6, St. Clair's Centre

Student Social : December 5

Activités sociales

Reception : 4 décembre, Hilton, Riverfront Club

Banquet: 6 décembre, St. Clair's Centre

Student Social: 5 décembre

Registration

Please register online at www.cms.math.ca. Payment may be made by cheque (Canadian or US dollars), or by VISA or MasterCard. Receipts will be provided at the meeting.

Inscription

Veuillez inscrire en ligne au www.smc.math.ca. Nous acceptons les paiements par chèque (dollars CAN ou US), VISA ou MasterCard. Les reçus seront remis sur place.

Accommodation

Group code: Canadian Mathematical Society, ZAQ

Booking deadline: November 6, 2009

Hébergement

Code de groupe : Canadian Mathematical Society, ZAQ

Date limite de réservation : 6 novembre 2009

Hilton Hotel Windsor

277 Riverside Drive West, Windsor, Ontario,

Tel: 1-519-973-5555, Fax: 1-519-973-1600

Rate: \$119 per night (plus applicable taxes)

Hôtel Hilton, Windsor

277 Riverside Drive West, Windsor, Ontario,

Tél. : 1-519-973-5555, Téléc : 1-519-973-1600

Tarif : 119 \$ la nuit (plus taxes)

Guest Accommodations

All guest rooms enjoy a lovely east or west river/skyline view featuring the Hilton Serenity Bedding Collection with pillow-top mattress, luxurious bedding, duvets and feather pillows. Deluxe, panoramic view rooms are also available for a small additional fee and feature a full direct spectacular river view. Amenities include: Fitness room, indoor pool, business centre with printer, ATM, foreign currency exchange.

Chambres et services

Toutes les chambres offrent un point de vue est ou ouest sur la rivière ainsi que le confort des matelas et surmatelas de la collection « Hilton Serenity », literie de luxe, douillettes en duvet et oreillers de plume. L'hôtel offre aussi des chambres « Deluxe » ou avec vue panoramique moyennant un léger supplément. Ces chambres offrent une vue directe spectaculaire sur la rivière. L'hôtel offre de nombreux services, dont une salle d'exercice, une piscine intérieure, un centre d'affaires avec imprimante, un guichet automatique et un service de change.

Radisson Riverfront Hotel Windsor

333 Riverside Drive West, Windsor Ontario

Reservations: 1-800-267-9777 toll free

Tel: 1-519-977-9777 Fax: 1-519-977-1411

Rate: \$109 per night (plus applicable taxes)

Hôtel Radisson Riverfront, Windsor

333 Riverside Drive West, Windsor Ontario

Réservations : 1-800-267-9777 sans frais

Tél. : 1-519-977-9777 Téléc : 1-519-977-1411

Tarif : 109 \$ la nuit (plus taxes)

RÉUNION D'HIVER SMC 2009 CMS WINTER MEETING

Travel

Transportation from Detroit Airport to the Hilton Hotel in Windsor: Robert Q provides ground transportation from Detroit airport to the Holiday Inn in Windsor. The cost for the shuttle is \$42. Conference participants will receive a 15% discount. Please mention the discount code #1982 when you make your advance reservation. Reservations can be made online or by calling 1-800-265-4948. From the Holiday Inn, one can take a taxi to the Hilton Hotel for approximately \$10.

The cost for a taxi from Detroit airport to the Hilton Hotel in Windsor will be about \$80 to \$120. The driving distance between Detroit airport and the Hilton Hotel is about 45 km; please allow at least 30 minutes for the border crossing.

A taxi fare from the Windsor airport to downtown costs approximately \$25.

Sponsors

- CRM
- The Fields Institute
- MITACS
- PIMS
- University of Windsor

Déplacements

Transport de l'aéroport de Détroit à l'hôtel Hilton de Windsor : L'entreprise Robert Q offre un service de navette de l'aéroport de Détroit au Holiday Inn de Windsor, au coût de 42 \$. Les participants à la Réunion recevront une réduction de 15 % en précisant le code no 1982 au moment de la réservation. Réservations en ligne ou au téléphone au 1-800-265-4948. À partir du Holiday Inn, un taxi vous mènera au Hilton pour environ 10 \$.

Le trajet en taxi de l'aéroport de Détroit au Hilton coûte entre 80 \$ et 120 \$. Environ 45 km séparent l'aéroport de Détroit du Hilton; prévoir au moins 30 minutes pour traverser la frontière.

Le trajet en taxi de l'aéroport au centre-ville coûte autour de 25 \$.

Commanditaires

- CRM
- Institut Fields
- MITACS
- PIMS
- Université de Windsor

THURSDAY/JEUDI December 3 décembre	SATURDAY/SAMEDI December 5 décembre	SUNDAY/DIMANCHE December 6 décembre	MONDAY/LUNDI December 7 décembre
18:30-22:00 Executive Committee Meeting Réunion du Comité exécutif (Hilton Hotel, Trillium Suite)	8:00 – 16:30 Registration/Inscription 9:30 – 16:00 Exhibits/Expositions 8:15 – 8:30 Opening/Ouverture 8:30 – 9:15 David Vogan Plenary Lecture 9:30-10:00 Break / Pause	8:00 – 16:30 Registration/Inscription 9:30 – 16:00 Exhibits/Expositions 8:00 – 10:00 Scientific Sessions 10:00-10:30 Break / Pause	8:00 – 16:00 Registration/Inscription 8:00 – 9:30 Scientific Sessions 9:30 - 10:15 Christine Schoemaker Plenary Lecture 10:15-10:30 Break / Pause
FRIDAY/VENDREDI December 4 décembre	10:00 – 11:30 Scientific Sessions	10:30 – 11:15 Nancy Reid Plenary Lecture	10:30 – 11:15 Naomi Leonard Plenary Lecture
11:00 AM – 13:00 Development Group Luncheon Lunch du groupe de développement (Hilton Hotel, Ontario Room)	11:30 – 12:15 Walter Whiteley Adrien Pouliot Award Lecture 12:30 – 14:00 Lunch Break 13:00-14:00 Student Seminar: Getting Published TBC	11:30 – 12:15 Mark Braverman Doctoral Prize Lecture 12:30 – 14:00 Lunch Break	11:30 – 12:15 Patrick Brosnan Coxeter-James Prize Lecture
13:30 – 18:30 Board of Directors Meeting Réunion du conseil d'administration (Hilton Hotel, Ontario Room)	14:00-15:00 Scientific Sessions 15:00 – 15:45 Jonathan Borwein Plenary Lecture 16:00– 18:00 Scientific Sessions	14:00-15:00 Scientific Sessions 15:00 – 15:45 Anthony To-Ming Lau Plenary Lecture 16:00 – 17:30 Scientific Sessions	14:00-16:30 Scientific Sessions
18:30-20:00 Welcome Reception Réception d'accueil	18:00-19:00 Alan H. Schoenfeld Public Lecture 19:00-20:00 Reception / Réception 20:00-22:00 Student Social	18:30 - 19:00 Reception (cash bar) Réception (bar payant) 19:00 – 22:00 Banquet	

(updated September 30, 2009)

RÉUNION D'ÉTÉ SMC 2010 CMS SUMMER MEETING

CALL FOR SESSIONS

We welcome and invite proposals for sessions for this meeting in Fredericton, New Brunswick (June 4-6, 2010). Proposals should include a brief description of the focus and purpose of the session, the expected number of the talks, as well as the organizer's name, complete address, telephone number, e-mail address, etc. All sessions will be advertised in the CMS Notes, on the web site and, if possible, in the Notices of the AMS and in publications of other societies. Speakers will be requested to submit abstracts, which will be published on the web site and in the meeting program. Those wishing to organize a session should send a proposal to the Meeting Directors by the deadline below.

Deadline: November 15, 2009

Meeting Directors / Directeurs de la Réunion :

Dr. Hugh Thomas
hthomas@unb.ca, T. 506-458-7331
Dr. Barry Monson
bmonson@unb.ca, T. 506-453-4768

Local Arrangements / Logistique locale

Dr. Maureen Tingley
tingleym@unb.ca, T. 506-458-7343

The following sessions have been confirmed for this conference:

Les sessions suivantes ont été confirmées :

Algebraic Combinatorics

Combinatoire algébrique

Org: Li Li, Alex Yong (Illinois - Urbana-Champaign)

Algebraic Geometry, Non-commutative Algebra and Derived Categories

Géométrie algébrique, algèbre non commutative et catégories dérivées

Org: Colin Ingalls (UNB)

Discrete Geometry

Géométrie discrète

Org: Barry Monson (UNB), Egon Schulte (Northeastern)

Error Control Codes, Information Theory, and Applied Cryptography

Codes de contrôle d'erreurs, théorie de l'information et cryptographie appliquée

Org: Tim Alderson (UNB - Saint John)

Geometric and Combinatorial Aspects

of Convex Optimization

Aspects géométriques et combinatoires de l'optimisation convexe

Org: David Bremner (UNB)

APPEL DE SESSIONS

Nous vous invitons à proposer des sessions pour la réunion qui se tiendra à Fredericton (Nouveau-Brunswick) du 4 au 6 juin 2010. Votre proposition doit inclure une brève description de l'orientation et des objectifs de la session, le nombre de communications prévues et leur durée, ainsi que le nom, l'adresse complète, le numéro de téléphone, l'adresse courriel et les autres coordonnées de l'organisateur. Toutes les sessions seront annoncées dans les Notes de la SMC, sur le site web et, si possible, dans le Notices de l'AMS et les publications d'autres sociétés. Les conférenciers devront présenter un résumé qui sera publié sur le site web et dans le programme de la Réunion. Toute personne qui souhaiterait organiser une session est priée de faire parvenir une proposition aux directeurs de la Réunion avant la date limite indiquée ci-dessous.

Date limite : 15 novembre 2009

Plenary Lectures / Conférences plénierées

Gerda de Vries (Alberta)
Idun Reiten (Norwegian Univ. of Science and Technology)
Gunther Uhlmann (Washington)
Henri Moscovici (Ohio State)
Kristin Schleich (UBC)

Geometric Topology

Topologie géométrique

Org: Ryan Budney (Victoria), Andy Nicas (McMaster)

Graph Theory

Théorie des graphes

Org: Shannon Fitzpatrick (UPEI)

Inverse Problems in Partial Differential Equations

Problèmes inverses pour les équations aux dérivées partielles

Org: Adrian Nachman (Toronto)

Mathematical Ecology and Epidemiology

Ecologie mathématique et épidémiologie

Org: Lin Wang, James Watmough (UNB)

Mathematical Physics

Physique mathématique

Org: Jack Gegenberg, Viqar Husain (UNB)

Mathematics Education

Éducation mathématique

Org: Alyssa Sankey (UNB)

RÉUNION D'ÉTÉ SMC 2010 CMS SUMMER MEETING

Noncommutative Geometry
Géométrie non commutative
Org: Bahram Rangipour (UNB)

Representation Theory of Algebras
Théorie des représentations des algèbres
Org: Ibrahim Assem (Sherbrooke), Thomas Brüstle (Sherbrooke; Bishop's), Shiping Liu (Sherbrooke)

Spectral Methods in the Analysis of Differential Equations
Méthodes spectrales en analyse des équations différentielles
Org: Almut Burchard, Marina Chugunova (Toronto)

Stability in Nonlinear Partial Differential Equations
Stabilité pour les équations aux dérivées partielles nonlinéaires
Org: Stephen Gustafson (UBC); Dmitry Pelinovsky (McMaster)

Tensor Categories
Catégories tensorielles
Org: Robert Paré (Dalhousie)

Contributed Papers
Communications libres
Org: TBD

CALL FOR NOMINATIONS **2010 David Borwein Distinguished Career Award**

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 **November 15, 2009**.

APPEL DE MISES EN CANDIDATURE **Prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière 2010**

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 15 novembre 2009**.

Selection Committee / Comité de sélection

David Borwein Distinguished Career Award / Prix David Borwein pour carrière distinguée
Canadian Mathematical Society / Société mathématique du Canada
105-1785 Alta Vista Dr., Ottawa, ON K1G 3Y6

RÉUNION D'HIVER SMC 2010 CMS WINTER MEETING

CALL FOR SESSIONS

We welcome and invite proposals for sessions for this meeting in Vancouver, British Columbia (December 4-6, 2010). Proposals should include a brief description of the focus and purpose of the session, the expected number of speakers, as well as the organizer's name, complete address, telephone number, e-mail address, etc. All sessions will be advertised in the CMS Notes, on the web site and in the AMS Notices. Speakers will be requested to submit abstracts, which will be published on the web site and in the meeting program. Those wishing to organize a session should send a proposal to the Meeting Directors by the deadline below.

Deadline: January 31, 2010

APPEL DE SESSIONS

Nous vous invitons à proposer des sessions pour la réunion qui se tiendra à Vancouver (Colombie-Britannique) du 4 au 6 décembre 2010. Votre proposition doit inclure une brève description de l'orientation et des objectifs de la session, le nombre de conférenciers prévus, ainsi que le nom, l'adresse complète, le numéro de téléphone, l'adresse courriel et les autres coordonnées de l'organisateur. Toutes les sessions seront annoncées dans les Notes de la SMC, sur le site web et dans les Notices de l'AMS. Les conférenciers devront présenter un résumé qui sera publié sur le site web et dans le programme de la Réunion. Toute personne qui souhaiterait organiser une session est priée de faire parvenir une proposition aux directeurs de la Réunion avant la date limite indiquée ci-dessous.

Date limite : 31 janvier 2010

Scientific Directors / Directeurs scientifiques :

Dr. Brian Marcus
marcus@math.ubc.ca, T:604-822-3262

Dr. Jozsef Solymosi
solymosi@math.ubc.ca, T: 604-822-5868

Department of Mathematics
University of British Columbia
Vancouver, BC Canada V6T 1Z2

Plenary Lectures / Conférences plénierées

David Aldous (UC-Berkeley)
Sujatha Ramdorai (Tata Institute; UBC)
Peter Sarnak (Princeton)
Tamar Ziegler (Technion)

The following sessions have been confirmed for this conference:

Les sessions suivantes ont été confirmées :

Compressed Sensing: Theory, Algorithms and Application

Acquisition comprimée : Théorie, algorithmes et application

Org: Michael Friedlander (UBC), Felix Herrmann (UBC), Ozgur Yilmaz (UBC)

Computational Number Theory

Théorie des nombres computationnelle

Org: Mark Bauer (Calgary), Mike Bennett (UBC)

Convex and Nonsmooth Analysis

Analyse convexe et non lisse

Org: Philip Loewen (UBC), Yves Lucet (UBC-Okanagan)

Harmonic Analysis and Additive Combinatorics

Analyse harmonique et combinatoires additives

Org: Izabella Laba (UBC), Akos Magyar (UBC), Malabika Pramanik (UBC)

History and Philosophy of Mathematics

Histoire et philosophie des mathématiques

Org: Tom Archibald (SFU), Alan Richardson (UBC), Glen van Brummelen (Quest Univ.)

Mathematics Education

Éducation mathématique

Org: TBD

p-adic groups, Automorphic forms, and Geometry

Groupes p-adiques, formes automorphes et géométrie

Org: Clifton Cunningham (Calgary), Julia Gordon (UBC)

Probability in Biology and Computer Science

Probabilité en biologie et informatique

Org: David Brydges (UBC), Ed Perkins (UBC)

Symbolic Dynamics and Ergodic Theory

Dynamique symbolique et théorie ergodique

Org: Chris Bose (Victoria), Doug Lind (Washington), Ian Putnam (Victoria), Anthony Quas (Victoria)

Theory and Application of Sequences and Arrays

Théorie et application des suites et tableaux

Org: Jonathan Jedwab (SFU), Brett Stevens (Carleton)

Contributed Papers

Communications libres

Org: TBD

CALENDAR OF EVENTS / CALENDRIER DES ÉVÉNEMENTS

NOVEMBER 2009 NOVEMBRE			2010 MARS		
2-6 Combinatorics: topics in graphs and hypergraphs (UCLA, Los Angeles, CA) www.ipam.ucla.edu/programs/cmaws3/			18 - 19 February Fourier Talks 2010 (Univ. of Maryland, College Park, MD) www.norbertwiener.umd.edu/FFT/FFT10/index.html		
6-10 XV Conference on Mathematics, Informatics and Related Fields (Hotel Energetyk, Naleczow, Poland) http://ptm.prz.rzeszow.pl/konferencja/			22-26 Statistical and Learning Theoretic Challenges in Data Privacy (UCLA, Los Angeles, CA) www.ipam.ucla.edu/programs/data2010/		
9 IAM-PIMS-MITACS Distinguished Colloquium -Theory and Modeling of Reactive Events University of British Columbia www.iam.ubc.ca/colloq/			26-28 Workshop on Lie Theory and its Applications (Fields Institute event at Carleton University) www.fields.utoronto.ca/programs/scientific/09-10/lietheory		
DECEMBER 2009 DÉCEMBRE			APRIL 2010 AVRIL		
5 - 7 2009 CMS Winter Meeting, Host: University of Windsor Hilton Hotel, Windsor (ON) www.cms.math.ca/Events/winter09/			16 The Nathan and Beatrice Keyfitz Lectures in Mathematics and the Social Sciences, Robert C. Merton, Harvard Business School (Fields Institute event at the University of Toronto) www.fields.utoronto.ca/programs/scientific/keyfitz_lectures/merton.html		
14-17 The Joint Conference of ASCM 2009 and MACIS 2009 (JAL Resort Sea Hawk Hotel, Fukuoka, Japan) http://gcoe.math.kyushu-u.ac.jp/ascm-macis2009/ascm-macis2009@math.kyushu-u.ac.jp			31-Jun 4 Harmonic Analysis Retrospective Meeting (Fields Institute)		
16-20 First Joint International Meeting of the AMS and the Korean Mathematical Society Seoul, Korea www.kms.or.kr/kmsams/			JUNE 2010 JUIN		
17-21 14th Asian Technology Conference in Mathematics (Beijing, China) www.mathandtech.org			Summer Workshop in Combinatorics (Montreal)		
JANUARY 2010 JANVIER			2-5 Eighth Joint International Meeting of the AMS and the Sociedad Matemática Mexicana Berkeley, California www.ams.org/amsmtgs/2172_program.html		
25-29 Metamaterials: applications, analysis and modeling (UCLA, Los Angeles, CA) www.ipam.ucla.edu/programs/meta2010/			4-6 2010 CMS Summer Meeting University of New Brunswick Fredericton, NB www.cms.math.ca/Events/summer10/		
22-24 Combinatorial Algebra meets Algebraic Combinatorics (Fields Institute event at Queen's University) www.mathstat.dal.ca/~faridi/research/inverse_systems/algebraiccombinatorics2010.html			13-18 48th International Symposium on Functional Equations (Batz-sur-Mer, France) nicole.bellouot@ec-nantes.fr		
FEBRUARY 2010 FÉVRIER			17-19 14th International Congress on Insurance: Mathematics and Economics (Fields Institute at the University of Toronto)		
			28-July 2 The Józef Marcinkiewicz Centenary Conference (Poznań, Poland) www.jm100.amu.edu.pl		

CALENDAR OF EVENTS / CALENDRIER DES ÉVÉNEMENTS

JULY	2010	JUILLET	SEPTEMBER	2010	SEPTEMBRE
5-9	Iwasawa 2010 Conference (Fields Institute) www.fields.utoronto.ca/programs/scientific/10-11/iwasawa		13-17	Conference on Asymptotic Geometric Analysis and Convexity (Fields Institute) www.fields.utoronto.ca/programs/scientific/10-11/asymptotic/	
26-Aug16	Topics in Noncommutative Geometry (Universidad Buenos Aires, Argentina) http://cms.dm.uba.ar/Members/gcorti/workgroup.GNC/3EIL				
AUGUST	2010	AOÛT	NOVEMBER	2010	NOVEMBRE
19-27	ICM 2010 - International Congress of Mathematics Hyderabad, India www.icm2010.org.in/		1-5	Workshop on Geometric Probability and Optimal Transportation (Fields Institute) www.fields.utoronto.ca/programs/scientific/10-11/asymptotic/	
9-13	Workshop on Fluid Motion Driven by Immersed Structures (Fields Institute) www.fields.utoronto.ca/programs/scientific/10-11/fluid_motion/		DECEMBER	2010	DECEMBRE
22-27	Workshop on Mathematical Virology (Fields Institute)		4-6	2010 CMS Winter Meeting University of British Columbia, BC www.cms.math.ca/Events/winter10/	
JUNE	2011	JUIN	22 – 25	26th Annual IEEE Symposium on Logic in Computer Science (Fields Institute event at the University of Toronto) www.fields.utoronto.ca/programs/scientific/10-11/lics11	

Tarifs et horaire 2009 Rates and deadlines

Deadlines for receipt of material are as follows / Les dates limites pour la réception des annonces sont les suivantes

Issue date/ date de parution	Content deadline / Date limite pour contenu		
February / février March / mars April / avril May / mai September / septembre October / octobre November / novembre December / décembre	December 1 / le 1 décembre January 15 / le 15 janvier February 15 / le 15 février March 15 / le 15 mars July 15 / le 15 juillet August 15 / le 15 août September 15 / le 15 septembre October 15 / le 15 octobre		
Net rates / tarifs nets	Institutional Members / Library Membres institutionnels / Bibliothèques	Corporate Members Membres Organisationnels	Others/Autres
Full page / page complète	260.00	485.00	645.00
3/4 page	240.00	445.00	595.00
1/2 page	160.00	295.00	395.00
1/4 page	95.00	175.00	235.00
Back cover	325.00	615.00	815.00
Inserts	195.00	375.00	495.00

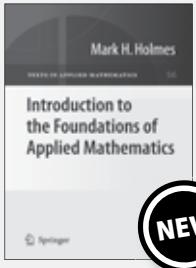
For more than 4 pages, or for the printing and inserting of camera ready material, please send a sample to the CMS Notes for a quote.

Surcharges apply for prime locations - contact notes-ads@cms.math.ca. Subscription to the Notes is included with the CMS membership. For non-CMS members, the subscription rate is \$75 (CDN) for subscribers with Canadian addresses and \$75 (US) for subscribers with non-Canadian addresses.

Pour plus de 4 pages, ou pour l'impression et l'inclusion d'une copie prête à la reproduction, veuillez envoyer un exemple aux Notes de la SMC afin d'obtenir un estimé.

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