







Canadian Mathematical Society

Société mathématique du Canada

The Canadian Mathematical Society promotes the advancement, discovery, learning and application of mathematics.

La Société mathématique du Canada favorise l'avancement, la découverte, l'apprentissage et l'application des mathématiques.



Canadian Mathematical Society 209-1725 St. Laurent Blvd. Ottawa, ON K1G 3V4 T: 613-733-2662

F: 613-733-8994

Société mathématique du Canada 209-1725 boul. St. Laurent Ottawa, ON K1G 3V4

T: 613-733-2662 F: 613-733-8994

### TABLE OF CONTENTS / TABLE DES MATIÈRES

The Canadian Mathematical Society / Société mathématique du Canada
President's Report / Rapport du président
Executive Director Report / Rapport du directeur exécutif
Treasurer's Report / Rapport du trésorier
Committee Reports:
Bilingualism
Education
Electronic Services
Endowment Grants
Finance
International Affairs
Invested Funds
Mathematical Competitions
Nominating25
Publications
Research
Student
Women in Mathematics

Annex A: CMS Financial Position (Dec. 31, 2012)
CMS Revenue - Operations Fund (Dec. 31, 2012)
CMS Revenue - Restricted Funds (Dec 31, 2012)
Annex B: CMS Board of Directors and Committees
Annex C: CMS Editorial Boards4
Annex D: CMS Offices
Annex E: 2012 Individual Donors
Annex F: 2012 Sponsors and Partners



## CANADIAN MATHEMATICAL SOCIETY

The voice of mathematics since 1945

#### WHY MATH

Mathematical thinking and abilities are critical success factors that fuel both national and personal prosperity. Mathematics allows economies to be understood and business sectors to function. Mathematics helps individuals understand, model, and change the world around them. Mathematics is creative. Mathematics is beautiful. Mathematics is universal. And mathematics is vitally important to the success of our nation, our enterprises, and our lives. To nurture that success, the Canadian Mathematical Society (CMS) promotes the advancement, discovery, learning and application of mathematics in Canada.

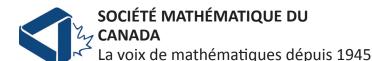
#### **HISTORY**

In 1945 a group of mathematicians met in Montreal as the *Canadian Mathematical Congress*. The group's aim was to try and collectively initiate important mathematical developments in Canada. This meeting led to the development of the Canadian Mathematical Society (CMS). The CMS has since evolved into Canada's voice of mathematics as the national professional society for Canadian mathematics.

#### **ABOUT US**

The CMS is all about mathematics. It's about mathematics research and discovery. It's about mathematics education and learning. It's about mathematics in daily life and in business. And it's about nurturing a strong and dynamic Canadian mathematics community from coast to coast.

The CMS is a volunteer and member-based, notfor-profit, federally registered charity. The CMS membership encompasses professors, teachers, students, parents, universities, CEGEPs, colleges, schools, corporations, individuals, and other math societies from Canada and around the world. The CMS Board of Directora has representation from across Canada and CMS committees engage every manner of interest in mathematics. CMS sponsors include major corporations as well as federal and



#### **POURQUOI LA MATHÉMATIQUE**

Une pensée mathématique et des capacités en mathématique sont des éléments de réussite essentiels pour assurer la prospérité nationale et personnelle. La mathématique permet aux économies d'être comprises et aux secteurs d'affaires de fonctionner. La mathématique aide les particuliers à comprendre, à modéliser et à changer leur univers. La mathématique est une discipline reposant sur la créativité. La mathématique est la beauté même. La mathématique est universelle. Et la mathématique est d'une importance vitale pour la réussite de notre pays et de nos entreprises et pour notre réussite personnelle. Pour favoriser cette réussite, la Société mathématique du Canada (SMC) s'est donnée pour mandat de promouvoir et de favoriser la découverte et l'apprentissage des mathématiques, et les applications qui en découlent à travers le Canada.

#### **HISTORIQUE**

En 1945, un groupe de mathématiciens se sont réunis à Montréal sous le nom de *Canadian Mathematical Congress*. Le groupe souhaitait lancer les fondements d'importantes percées en mathématique au Canada. Cette rencontre a entraîné la création de la Société mathématique du Canada (SMC). La SMC est devenue la voix de la mathématique du Canada en sa qualité de société professionnelle nationale pour la mathématique au Canada.

#### À PROPOS DE NOUS

Tout à la SMC gravite autour de la mathématique. Il est question de recherche et de découvertes en mathématique. Il est question d'enseignement et d'apprentissage de la mathématique. Il est question de mathématique au quotidien et dans le milieu des affaires. Et il est question d'appuyer une collectivité mathématique canadienne bien portante et dynamique d'un océan à l'autre.

La SMC est une œuvre charitable d'inscription fédérale, sans but lucratif et composée de membres et de bénévoles. On compte parmi les membres de la SMC des professeurs, des enseignants, des provincial governments.

#### WHAT WE DO

The CMS promotes and publishes research. The CMS engages math educators to share experiences and best practices. The CMS provides extra-curricular learning experiences for general enrichment and advanced study. The CMS promotes mathematics to advance career aspirations. The CMS gives voice to the Canadian mathematics community. And the CMS nurtures and celebrates Canadian math excellence on the domestic and international stage.

Much of what CMS does targets Canada's youth. CMS develops and holds math competitions, stages national and regional math camps, publishes a high school problem-solving magazine, provides scholarships, and develops web-based resources. The CMS also stages the high school team, Math Team Canada, that represents Canada at the International Mathematical Olympiad.

Every facet of study, careers, and everyday life relies, to one degree or another, on mathematics. The development of math skills fuels our ability to reason, to organize, and to solve problems – all key skills to understanding and addressing the complexities of life. Because math is so important, the CMS promotes and advances 'the doing of math' across Canada.



étudiants, des parents, des universités, des CEGEP, des collèges, des écoles, des sociétés, des particuliers et d'autres sociétés mathématiques du Canada et d'ailleurs dans le monde. Le conseil de direction de la SMC compte des membres représentant diverses régions du Canada, et les comités de la SMC contribuent activement à tous les domaines d'intérêt en mathématique. La SMC compte parmi ses commanditaires de grandes sociétés et les gouvernements fédéral et provinciaux.

#### **CE QUE NOUS FAISONS**

La SMC encourage la recherche et publie les résultats. Elle incite les enseignants en mathématique à partager leur expérience et des pratiques exemplaires. La SMC offre des occasions d'apprentissage en dehors des salles de classe à ceux qui cherchent à enrichir leurs connaissances et à approfondir leurs études. La société fait la promotion de la mathématique comme moyen à préconiser pour faire avancer sa carrière. La SMC est la voix de la collectivité mathématique du Canada. Enfin, elle appuie et souligne l'excellence en mathématique au Canada, tant au niveau national qu'international.

Une grande partie des activités de la société vise les jeunes du Canada. La SMC crée et organise des concours de mathématique, organise des camps de mathématique nationaux et régionaux, publie une revue destinée aux étudiants du secondaire où l'on retrouve des problèmes à régler, décerne des bourses d'études et offre des ressources sur le Web. La SMC est aussi responsable de l'équipe d'étudiants du secondaire représentant le Canada à l'Olympiade internationale de mathématiques.

Tous les aspects des études, du travail et de la vie quotidienne dépendent à des degrés variables des mathématiques. Le développement des compétences mathématiques alimente la capacité de raisonner, d'organiser et de résoudre des problèmes – toutes des compétences essentielles pour comprendre et surmonter les difficultés de la vie. Puisque les mathématiques sont si importantes, la SMC fait la promotion et favorise l'avancement de l'activité mathématique partout au Canada.

#### PRESIDENT'S REPORT

President - Keith Taylor (Dalhousie)



As the national mathematics organization, the CMS represents the mathematics profession and community to government, industry and the general public. Our meetings and publications make important contributions to mathematical research and mathematics education. Our math camps, competitions, and other activities enrich students'

experience with mathematics, and our endowment grants program makes possible unique contributions to the broader good of the mathematics community. For every aspect of our activities, there are committed and dedicated mathematicians who volunteer their experience and expertise to help make our initiatives meaningful and successful. CMS volunteers make a real difference in the mathematics community.

I took over as President of the Society on July 1, 2012, from Jacques Hurtubise who continues as Past President for one year. We are joined on the Executive by Executive Director Johan Rudnick, David Rodgers as Treasurer and four Vice-Presidents; Karl Dilcher (Atlantic), Olivier Collin (Quebec), Stephen Kudla (Ontario), and Elena Braverman (Western). The Executive meets four times per year while much of the business of the Society is carried on by the staff in the Ottawa offices under the leadership of Johan. This professional staff supports a large number of loyal volunteers who contribute to a wide array of committees and various editorial duties.

We have been moving forward on a number of fronts, just some of which I will note. The bi-annual CMS Meetings are where colleagues can present their most up-to-date research. The Summer Meeting took place in Regina with a strong program of special sessions attracting good registration numbers. The

#### RAPPORT DU PRÉSIDENT

Président - Keith Taylor (Dalhousie)

En tant que porte-parole national, la SMC représente la profession et la communauté mathématiques auprès de l'industrie, des gouvernements et du grand public. Nos Réunions et nos publications jouent un rôle important en recherche et en enseignement des mathématiques. Nos camps mathématiques, nos concours et autres activités enrichissent également l'expérience mathématique des étudiants, et notre programme de bourses du fonds de dotation permet des contributions uniques pour l'essor général de la communauté mathématique. Pour chaque aspect de nos activités, des mathématiciens engagés et dévoués font profiter la SMC de leur expérience et de leurs connaissances pour assurer la pertinence et la réussite de nos initiatives. Les bénévoles de la SMC sont une grande richesse pour la communauté mathématique.

J'ai entrepris mon mandat à la présidence de la Société le 1er juillet 2012, après le départ de Jacques Hurtubise, toujours avec nous en tant qu'ancien président pour un an. Font aussi partie du Comité exécutif le directeur administratif Johan Rudnick, le trésorier David Rodgers et quatre vice-présidents, soit Karl Dilcher (Atlantique), Olivier Collin (Québec), Stephen Kudla (Ontario) et Elena Braverman (Ouest). Le Comité exécutif se réunit quatre fois l'an, et une grande partie des affaires courantes de la Société se fait au bureau administratif d'Ottawa, sous la direction de Johan. L'équipe professionnelle du bureau soutient le travail d'un grand nombre de bénévoles dévoués qui contribuent à une vaste gamme de comités et à diverses fonctions éditoriales.

Nous avons progressé dans de nombreux dossiers cette année, dont en voici quelques-uns. Les Réunions semestrielles de la SMC sont des lieux parfaits pour présenter ses tout derniers travaux de recherche. La Réunion d'été s'est tenue à Regina, où un excellent programme de sessions spéciales a attiré un grand nombre de membres. La Réunion d'hiver de Montréal a elle aussi présenté de nombreuses sessions et deux lancements dignes de mention. Les participants ont d'abord assisté au lancement de l'année canadienne et internationale des Mathématiques de la planète Terre

Winter Meeting in Montreal boasted a large number of sessions and two notable launches. The first launch was the Canadian and international launch of Mathematics of Planet Earth (MPE 2013). Christiane Rouseau merits special mention as the driving force behind MPE2013 which has been adopted by many scientific societies around the globe as a theme for 2013. The other launch at the Montreal meeting was of Solutions for a Complex Age: the Long Range Plan for Mathematical and Statistical Sciences Research in Canada 2013-2018 by NSERC. Nancy Reed chaired the Steering Committee that worked over many months in developing a resource for guiding strategies for research and funding over the next five years based on input from across the community, including the CMS.

On the international front, at the 53rd International Mathematical Olympiad held in Argentina from July 4 to July 16, a team of six Canadian high school students who received training and support from the CMS placed 5th overall – the best ranking in the history of the Canadian IMO team since we started participating in 1981. The team competed against over 500 students from 100 other countries and was awarded three gold, one silver and two bronze medals.

CJM and CMB journals also continue to thrive and this year we have once again expanded CMB.On the competitions front, we continued to build our infrastructure. In particular, we announced in October that a nation-wide network of universities had been established to assist the CMS in the marking of the Sun Life Financial Canadian Open Mathematics Challenge (COMC). The COMC, written by thousands of high school students, is one of the stages that lead to the annual selection of Math Team Canada to compete at the International Mathematics Olympiad (IMO). The Team Leader for Math Team Canada in 2012 was Jacob Tsimerman and, as noted above, they achieved great success.

A number of outstanding members of our community were recognized by awards from the Society in 2012:

➤ Bernard Hodgson, Laval, received the Graham Wright Award for Distinguished Service.

(MPT 2013). Christiane Rousseau mérite une mention spéciale en tant que force motrice de MPT 2013, que de nombreuses sociétés scientifiques de la planète ont adopté comme thème en 2013. Le deuxième lancement de la Réunion de Montréal aura été celui du plan Solutions pour un âge complexe : le Plan à long terme pour la recherche en mathématiques et en statistique au Canada 2013-2018 du CRSNG. Nancy Reed a présidé le Comité de direction qui a consacré plusieurs mois à la conception d'une ressource destinée à orienter les stratégies de recherche et de financement des cinq prochaines années, élaborée à partir des commentaires de la communauté, notamment de la SMC.

Sur la scène internationale, soulignons qu'à la 53e Olympiade internationale de mathématiques (OIM) tenue en Argentine du 4 au 16 juillet, l'équipe canadienne de six élèves du secondaire formée et appuyée par la SMC s'est classée au 5e rang général, soit le meilleur classement du Canada à l'OIM depuis sa première participation en 1981. Nos jeunes se sont mesurés à plus de 500 élèves d'une centaine de pays et ont récolté trois médailles d'or, une d'argent et deux de bronze.

Sur la scène des concours, nous continuons d'élargir notre infrastructure. En particulier, nous avons annoncé en octobre la création d'un réseau national d'universités pour aider la SMC à corriger les épreuves du Défi ouvert canadien de mathématiques Financière Sun Life (DOCM). Le DOCM, auquel ont participé des milliers d'élèves du secondaire, est l'une des étapes menant à la sélection annuelle de l'équipe Math Canada, qui représente le pays à l'OIM. En 2012, l'équipe Math Canada était dirigée par Jacob Tsimerman et a remporté un vif succès, comme nous l'avons souligné plus tôt.

Plusieurs membres exceptionnels de notre communauté ont été récompensés par des prix de la Société en 2012 :

- ➤ Bernard Hodgson (Laval) a reçu le prix Graham-Wright pour service méritoire
- Melania Alverez (PIMS et UBC) a reçu le prix

- The Adrien Pouliot Award went to Melania Alverez Adrien-Pouliot of PIMS and UBC.
- Veselin Junic, SFU, was recognized for Excellence in d'excellence en enseignement Teaching.
- Serban Belinschi, Saskatchewan and Queens, was joined by co-authors Teo Bianca, Mireille Capitaine and Benoit Collins in receiving the G. de B. Robinson Award.
- Greg Smith, Queens, delivered the Coxeter-James Prize Lecture.
- Ailana Fraser, UBC, delivered the Krieger-Nelson Prize Lecture.
- Roland Speicher, Queens and Saarland, gave the Jeffery-Williams Prize Lecture.
- The Doctoral Prize went to Matthew Kennedy, Carleton, for his thesis written under the supervision of Ken Davidson at Waterloo.

The editorial offices of the Society's journals continue to operate well with a reasonable management of the backlogs. The CJM and CMB continue to thrive and this year we have again expanded CMB. There has been considerable discussion in the Executive of the potential impact of the Open Access movement in publishing. It is of the greatest importance to the CMS that we continue to maintain a viable financial model with our journals. There will be more on this issue in 2013.

- Veselin Junic (Simon-Fraser) a reçu le Prix
- Serban Belinschi (Saskatchewan et Queen's) et ses coauteurs Teo Bianca, Mireille Capitaine et Benoit Collins ont reçu le prix G. de B. Robinson
- Greg Smith (Queen's) a prononcé la conférence du prix Coxeter-James
- Ailana Fraser (UBC) a donné la conférence du prix Krieger-Nelson
- Roland Speicher (Queen's et Saarland) a prononcé la conférence du prix Jeffery-Williams
- Le Prix de doctorat a été décerné à Matthew Kennedy (Carleton) pour sa thèse sous la direction de Ken Davidson (Waterloo)

Les bureaux de rédaction des revues de la Société continuent à bien fonctionner et gèrent un arriéré raisonnable d'articles à publier. Nos revues, le JCM et le BCM, se portent aussi très bien. Nous avons d'ailleurs étoffé à nouveau le BCM cette année. Le Comité exécutif se penche régulièrement sur les répercussions potentielles du mouvement Libre accès (Open Access) dans le milieu de la publication. Il est impératif pour la SMC de maintenir un modèle financier viable avec ses revues. Ce sujet reviendra au cœur de nos discussions en 2013.



#### **EXECUTIVE DIRECTOR'S REPORT**

Executive Director - Johan Rudnick



#### **SERVING MATHEMATICS**

As the national mathematics association promoting the advancement, discovery, learning, and application of mathematics, the CMS strives to serve the needs and aspirations of the broad mathematics community across Canada. In so

doing, CMS is involved in a myriad of activities - from the simplicity of CMath (the across-the-community broadcast venue) to research conferences and publications, to camps and competitions, to grants, and to the back office support for other mathematics groups. In serving the mathematics community, the CMS uses its resources to facilitate the development of mathematics directly though CMS programs and partnerships within the community.

The way that the CMS 'serves' is, however, changing and in 2012, the results from some of the initiatives launched in 2011 began to emerge. New lower cost CMS individual memberships were established. With significant input from the CMS, the NSERC Long Range Plan for Mathematical and Statistical Sciences was issued. The CMS national Mathematics of Planet Earth 2013 (MPE2013) lecture series took shape and the national and global MPE2013 initiative was launched during the CMS Winter meeting in Montreal. CMS meetings became more 'interesting' and popular. And, the CMS math competition university partnerships came into full force.

And while CMS operations evolve, financial challenges have become more pressing. After two years of increased fiscal prudence that produced two consecutive years of operating surpluses, the economic slowdown and reduced external funding finally took hold in 2012, which resulted in a CMS operating loss. Going forward, the challenge over the next few years will be to continue to diversify CMS revenue sources, develop and invest in a broader

#### RAPPORT DU DIRECTEUR EXÉCUTIF

Directeur Exécutif - Johan Rudnick

#### **AU SERVICE DES MATHÉMATIQUES**

En tant que porte-parole national ayant pour mission de promouvoir l'avancement, la découverte et l'apprentissage des mathématiques, ainsi que les applications qui en découlent, la SMC s'efforce de répondre aux besoins et aux aspirations de la grande communauté mathématique du Canada. Elle participe et contribue ainsi à une myriade d'activités, allant de la simplicité de CMath (liste de diffusion de la communauté mathématique) aux congrès, conférences et publications scientifiques, en passant par les camps, les concours, les bourses et le soutien administratif offert à d'autres groupes mathématiques. En servant ainsi la communauté mathématique, la SMC utilise ses ressources pour favoriser directement l'essor des mathématiques par ses programmes et partenariats avec la communauté.

La nature des services qu'offre la SMC a toutefois tendance à changer. En 2012, les résultats de quelques-unes des initiatives lancées en 2011 commencent à paraître. Nous avons adopté de nouvelles cotisations individuelles à prix réduit. La SMC a grandement contribué à l'élaboration du Plan à long terme pour les sciences mathématiques et statistiques du CRSNG qui vient d'être publié. La série nationale de conférences de la SMC dans le cadre des Mathématiques de la planète Terre 2013 (MPT2013) a pris forme, et l'initiative nationale et internationale MPT2013 a été lancée à la Réunion d'hiver de la SMC tenue à Montréal. Les Réunions de la SMC sont devenues plus « intéressantes » et populaires. Et le partenariat de la SMC avec les universités pour le soutien aux concours mathématiques est entré en vigueur.

Cette croissance des activités de la SMC entraîne l'urgence de trouver des solutions à certaines difficultés financières. Après deux ans de prudence sur le plan financier qui nous ont permis de réaliser un surplus deux années consécutives, le ralentissement économique et la baisse du financement externe

self-sustaining foundation for CMS initiatives, and at the same time continue to service the advancement, discovery, learning and application strategic priorities.

#### Advancement

In promoting the advancement of mathematics, the building of a national society is a critical element of CMS activity. To this end, membership stood at 1,071 in 2012, continuing a slow but steady growth from 961 members in 2009. In addition to the broadening and expansion of CMS membership, the CMS continues to be well supported by volunteers from across Canada who serve on the CMS Board of Directors, the Executive Committee, and various

"Membership fuels our national voice when we make submissions to government, speak to the media and partner with other societies. Membership sustains CMS programs that publish journals, stage scientific meetings, present competitions, and develop camps. And membership provides engagement and direction to our community."

- Keith Taylor, CMS President

other CMS committees and sub-committees. At the same time, the CMS works to support and strengthen other mathematical sciences groups whether through back office services for the Statistical Society of Canada, or registration and abstract submission services for CanaDAM. CMS also advocates on diverse issues important to the community, including long-term NSERC planning, the NSERC Discovery Grants program, the continued availability of the Census@School program, and even the continued funding of existing institutes. To facilitate community engagement, the CMS maintains the CMath notice service and continues to produce the CMS newsletter, CMS Notes. And to recognize and honour distinguished contributions and service to our community, the CMS presents the Graham Wright Award for Distinguished Service and the David Borwein Distinguished Career Award.

ont porté un dur coup durant l'exercice 2012, marqué par un déficit annuel d'exploitation. Pour les prochaines années, notre défi consistera à poursuivre la diversification des sources de financement de la SMC, à bâtir des assises plus larges et autosuffisantes pour les projets et programmes de la SMC et à y investir, tout en continuant de se mettre au service des priorités stratégiques que sont l'avancement, la découverte et l'apprentissage des mathématiques, ainsi que les applications qui en découlent.

#### **Avancement**

La promotion de l'avancement des mathématiques passe nécessairement par une société nationale forte pour soutenir ses activités. La SMC, qui comptait 1 071 membres en 2012, poursuit sa croissance modeste, mais constante par rapport à 2009, alors qu'elle comptait 961 membres. En plus d'élargir et d'accroître son bassin de membres, la SMC demeure bien soutenue par ses bénévoles de tout le pays, qui siègent au Conseil d'administration, au Comité exécutif et à divers autres comités et sous-comités. La SMC s'attache aussi à aider et à appuyer d'autres groupes de sciences mathématiques. Elle offre par exemple des services de soutien administratif à la Société statistique du Canada et des services d'inscription et de présentation de résumés à CanaDAM. La SMC se porte aussi à la défense de diverses causes importantes pour la communauté, dont la planification à long terme du CRSNG, le programme de Subventions à la découverte du

« Nos membres donnent du poids à notre voix nationale quand nous présentons des mémoires au gouvernement, quand nous nous adressons aux médias ou quand nous concluons des partenariats avec d'autres sociétés. Nos membres soutiennent les programmes de la SMC dans la publication de revues, l'organisation de congrès scientifiques, la présentation de concours et la préparation de camps mathématiques. Et nos membres s'engagent auprès de la communauté mathématique et en orientent la destinée. »

- Keith Taylor, président de la SMC

While on-going programs and initiatives continue to engage most CMS resources, some resources were set aside in 2012 to address new issues, including:

- ➤ Work began to revamp the CMS bylaws in support of the new *Canada Not-for-profit Corporations Act*;
- ➤ A new President's Advisory Council was established to both honour and engage past CMS presidents and executive directors; and
- New, lower cost individual membership categories were introduced.

#### **Discovery**

In promoting the discovery of mathematics, the primary CMS activities continue to focus on semi-annual research meetings, publishing research journals, honouring outstanding research and researchers, and supporting student-oriented seminars and workshops. In 2012, the CMS meetings took place in Regina and Montreal, with strong levels of participation, including students, some of whom were supported by CMS grants. The CMS is also active in promoting mathematics internationally and in 2012, as a founding organizational partner, continued to support the development of the Mathematical

"My dream is now shared by so many scientists around the world that MPE2013 is developing on its own. This unprecedented collaboration will last beyond 2013."

> - Christiane Rouseau, Vice-President, International Mathematical Union

Congress of the Americas 2013; a special thank you to the leadership of Alejandro Adem, Director, PIMS, for representing the CMS. Furthermore, the CMS was very active in supporting the development and launch of the widely acclaimed Mathematics of Planet Earth initiative that was conceived and developed by Christiane Rouseau (Montreal), a former CMS President. On the journal front, as the emerging impact of Open Access is under close scrutiny by math

CRSNG, la continuité du programme Recensement à l'école et le maintien du financement des instituts du pays. Pour favoriser la participation des membres de la communauté, la SMC gère la liste de diffusion CMath et publie toujours son bulletin électronique, les Notes de la SMC. De plus, pour remercier et honorer les contributions exceptionnelles de ses membres et les services rendus à la communauté, la SMC décerne le prix Graham-Wright pour service méritoire et le prix David-Borwein de mathématicien émérite pour l'ensemble d'une carrière.

Bien que les initiatives et programmes courants monopolisent la plus grande partie des ressources de la SMC, certaines ressources ont été mises de côté en 2012 pour composer avec de nouvelles réalités, notamment :

- ➤ des travaux sont en cours pour revoir les règlements administratifs de la SMC afin de les adapter à la nouvelle *Loi canadienne sur les organisations* à but non lucratif;
- ➤ un nouveau Conseil consultatif de la présidence a été créé pour rendre hommage aux anciens présidents et directeurs administratifs et susciter leur engagement;
- ➢ de nouvelles catégories de cotisations individuelles à prix réduit ont été créées.

#### Découverte

La promotion de la découverte des mathématiques à la SMC prend surtout la forme d'activités entourant les Réunions semestrielles, la publication de revues scientifiques, la reconnaissance de projets de recherche et de chercheurs exceptionnels et le financement de séminaires et d'ateliers destinés aux étudiants. En 2012, les Réunions de la SMC se sont tenues à Regina et à Montréal et ont attiré un grand nombre de participants, y compris des étudiants dont certains ont bénéficié d'une subvention de la SMC. La SMC fait aussi activement la promotion des mathématiques sur la scène internationale. En 2012, en tant qu'organisme partenaire fondateur, elle a maintenu son appui à la création du Congrès

societies around the world, the two eminent CMS publications, the *Canadian Journal of Mathematics* (CJM) and the *Canadian Mathematical Bulletin*, experienced small declines in their subscription base. Some noteworthy initiatives in 2012 include:

- Adding fun and drama to a CMS meeting, a mathbased play was presented at the Winter meeting, courtesy of the good graces and considerable effort of Andrew Granville, (McGill);
- Working with universities across Canada, Jacques Hurtubise (McGill), established and launched a CMS national series of MPE2013 lectures;
- Collaborating with the TUTTE Institute for Mathematics and Computing, the CMS staged a special number theory session for graduate students.

For 2013, the semi-annual meetings are scheduled to take place in Winnipeg and Hamilton. CMS will also be looking to partner internationally with an organization that can provide solid marketing support for CMS journals.

#### Learning

In promoting the learning of mathematics, CMS activities focus on the education research component of the semi-annual national meetings, production of the internationally acclaimed CRUX problem-solving journal, honouring teaching excellence, partnering with universities to hold math camps, staging national mathematics competitions, and assembling and coaching Math Team Canada to compete in the International Mathematical Olympiad (IMO); in 2012, the team received the highest ranking ever, 5th in the world. The CMS also supported universities and other organizations in staging math competitions. Noteworthy initiatives in 2012 include:

- ➤ Completing a national network of university partners to stage and develop the CMS Sun Life Financial Canadian Open Mathematics Challenge (COMC) competition;
- Expanding the CMS math camps program; and

mathématique des Amériques 2013 – un merci particulier à Alejandro Adem, directeur du PIMS, d'y représenter la SMC. De plus, la SMC a contribué très activement à l'élaboration et au lancement de l'initiative largement saluée Mathématiques de la planète Terre, conçue et développée par Christiane Rousseau (Montréal), ancienne présidente de la SMC. Du côté des publications, à l'heure où les répercussions prévisibles du mouvement Libre accès

« Je partage désormais mon rêve avec tant de scientifiques de toute la planète que l'initiative MPT 2013 grandit toute seule. Cette collaboration sans précédent se prolongera bien au-delà de 2013. »

> - Christiane Rouseau, Vice-President, International Mathematical Union

(Open Access) sont surveillées de près par toutes les sociétés du monde, les deux publications phares de la SMC, soit le *Journal canadien de mathématiques* (JCM) et le *Bulletin canadien de mathématiques*, ont enregistré une légère baisse de leur nombre d'abonnés. Voici quelques-unes des initiatives prometteuses de 2012 :

- pour agrémenter une Réunion de la SMC, Andrew Granville (McGill) n'a rien ménagé pour présenter une pièce de théâtre à saveur mathématique à la dernière Réunion d'hiver;
- en collaboration avec des universités d'un peu partout au Canada, Jacques Hurtubise (McGill) a lancé

« Je vous remercie sincèrement pour votre temps et votre énergie. Quelle initiation utile et approfondie à tant de programmes! Cela compte beaucoup pour nous. »

-Georgina Hnatiuk, parent

une série de conférences nationales de la SMC dans le cadre de MPT2013;

Partnering with the University of Toronto to establish a new home for a revitalized CMS Canada Math Camp.

In 2012, the CMS also continued to struggle with a CRUX backlog and the development of new format. At the same time, in collaboration with the Statistical Society of Canada, the CMS negotiated the transfer of the Census@School program from Statistics Canada (SC) as well as an archive copy of the SC Education

"I really genuinely appreciate your time and energy. What a helpful and thorough introduction to so many programs! It really makes a difference."

- Georgina Hnatiuk, Parent

Outreach program materials. In 2013, further expansion of the CMS math competitions and math camps programs is under development along with continued development of CRUX.

#### **Application**

In promoting the application of mathematics (outside advancement, discovery and learning contexts) the CMS looks to organizations that have a stronger focus on applied math to provide guidance and direction. At the same time, much of what CMS already engages in also supports applied mathematics.

#### **Moving Forward**

Operationally, 2012 represented a continuation of a multi-year cycle of quiet renewal and development of how CMS serves mathematics across Canada. To this end, the next few years are expected to be especially challenging for the CMS, both financially and operationally. CMS will be acting to buttress and expand revenue sources. CMS governance will be revamped. The breadth and scope of CMS membership will be expanded. CMS meetings will be enriched. CMS publications will be actively marketed. CMS camps and competitions will be expanded. And CMS will be working towards becoming a stronger and

➤ en collaboration avec l'Institut TUTTE de mathématiques et d'informatique, la SMC a organisé une session spéciale sur la théorie des nombres pour les étudiants aux cycles supérieurs.

En 2013, les Réunions d'été et d'hiver se tiendront respectivement à Winnipeg et à Hamilton. La SMC cherchera également à établir un partenariat avec un organisme présent sur la scène internationale qui pourrait assurer la promotion efficace de ses revues.

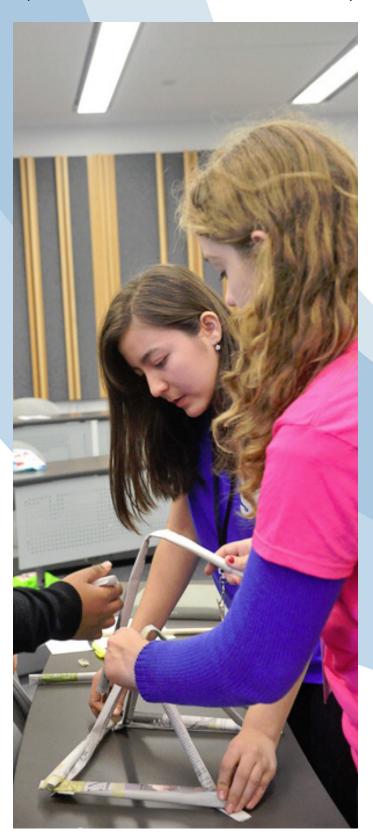
#### **Apprentissage**

La promotion de l'apprentissage des mathématiques à la SMC se voit surtout dans le volet éducation et recherche des Réunions semestrielles, la publication de la revue de résolution de problèmes de réputation internationale CRUX, la reconnaissance de l'excellence en enseignement, les partenariats avec des universités pour tenir les camps mathématiques, l'organisation de concours nationaux de mathématiques ainsi que la constitution et l'entraînement de l'équipe Math Canada qui participe à l'Olympiade internationale de mathématiques (OIM). En 2012, cette équipe s'est classée au 5e rang mondial, soit le classement le plus élevé depuis que le Canada participe à l'OIM. La SMC aide aussi les universités et d'autres associations à organiser des concours mathématiques. Voici quelques-unes des initiatives importantes de 2012 :

- réation d'un réseau national de partenaires universitaires prêts à organiser et à bonifier le Défi ouvert canadien de mathématiques Financière Sun Life de la SMC:
- > expansion du programme des camps mathématiques de la SMC;
- > partenariat avec l'Université de Toronto afin de trouver un nouvel emplacement pour la version améliorée du camp Math Canada de la SMC.

En 2012, la SMC a continué à gérer le mieux possible un important arriéré d'articles pour le CRUX et à développer un nouveau format. De plus, en collaboration avec la Société statistique du Canada, la SMC a négocié le transfert du programme

more representative national organization — and one that can sustainably continue to serve the needs and aspirations of the Canadian mathematics community.



Recensement à l'école de Statistique Canada (SC) et d'une copie des archives du matériel du Programme de soutien à l'éducation de SC. En 2013, la SMC poursuivra l'expansion de ses concours et de ses camps mathématiques et le développement de CRUX.

### **Applications**

En promotion des applications mathématiques (mis à part les contextes de l'avancement, de la découverte et de l'apprentissage), la SMC offre conseils et orientation aux organisations plutôt centrées sur les mathématiques appliquées. D'ailleurs, une bonne partie des activités actuelles de la SMC soutiennent déjà les mathématiques appliquées.

#### **Perspectives**

Sur le plan du fonctionnement, l'année 2012 aura été la continuation d'un cycle pluriannuel de renouveau et de développement tranquille à la SMC, au service des mathématiques au Canada. On s'attend à ce que les prochaines années soient particulièrement difficiles à la SMC, tant sur le plan financier qu'opérationnel. La SMC prendra des moyens pour accroître et diversifier ses sources de financement. Elle devra aussi mettre à jour son mode de gouvernance ainsi qu'élargir et diversifier son bassin de membres. Elle enrichira ses Réunions, fera la promotion active de ses publications et élargira son programme de camps et de concours. La SMC s'attachera à devenir un organisme national plus fort et plus représentatif qui pourra continuer longtemps à répondre aux besoins et aux aspirations de la communauté mathématique canadienne.

#### TREASURER'S REPORT

Treasurer - David Rodgers



Financially, the CMS continues on the "stable but fragile path" established a number of years ago, buoyed up by the improving performance of its investment portfolio, an extraordinary one-time infusion of revenue in 2012, and an extremely successful Winter 2012 meeting. The organization continues its

struggle to transition to a solidly balanced program of revenue-producing activities that support the CMS mission that are not so heavily dependent on publishing revenues. 2012 represents some substantive steps of progress, in spite of an annual operating loss of \$28,000 and significant continuing financial challenges facing the CMS in 2013.

Rebalancing efforts have put more emphasis on reinforcing the CMS role as the national voice for mathematics in Canada and to assure wide and representative participation within the provinces.

Work is underway that will result in a redraft of the CMS By-Laws in 2013.

The COMC has been re-engineered and is being rebuilt using a network of Canadian partners and a marking system designed to minimize bias in the outcome. The IMO team finished 5th and one student ranked 4th in the world on a team that achieved 3 gold, 2 silver, and 1 bronze metal. Math camps continue to serve large numbers of young students and about one-third of the participants were female.

All of this was accomplished in a Canadian economy that projects only very modest growth for the next several years, and a record of declining sponsorship by the corporate and governmental sector for some CMS activities. Steps are underway to shore up and broaden fund-raising activity in 2013. The publishing model used by the CMS is under review as staff in the Winnipeg office near or reach retirement age.

#### RAPPORT DU TRÉSORIER

Trésorier - David Rodgers

Financièrement, la SMC demeure en situation « stable, mais fragile » et maintient le cap fixé il y a quelques années, stimulée par le bon rendement de ses investissements, une rentrée de fonds unique extraordinaire en 2012 et une Réunion d'hiver 2012 exceptionnelle. La Société poursuit la dure transition vers un programme bien équilibré d'activités génératrices de recettes qui soutiennent la mission de la SMC sans dépendre autant de ses revenus de publication. L'année 2012 marque des progrès considérables, malgré un déficit annuel d'exploitation de 28 000 \$ et de sérieuses difficultés financières qui risquent de perdurer en 2013.

Nos efforts de rééquilibre nous ont amenés à renforcer le rôle de la SMC en tant que porte-parole national de la communauté mathématique au Canada et à encourager la participation élargie et représentative de membres de toutes les provinces. En outre, une refonte des règlements administratifs de la SMC est en marche et devrait aboutir en 2013.

Le DOCM fait l'objet d'une restructuration mettant à contribution un réseau de partenaires canadiens et intégrera un système de correction visant à réduire la subjectivité des résultats. De plus, l'équipe canadienne à l'OIM a terminé au 5e rang mondial, et un élève s'est classé au 4e au monde. Elle a recueilli trois médailles d'or, deux d'argent et une de bronze. Les camps mathématiques continuent d'attirer un grand nombre de jeunes élèves, dont à peu un tiers de filles.

Nous avons réalisé tout cela malgré une économie canadienne dont la croissance pour les prochaines années s'annonce très modeste et une baisse de financement de source privée et gouvernementale pour certaines activités de la SMC. Nous avons pris des mesures pour intensifier et élargir nos activités de financement en 2013. De plus, le modèle de publication de la SMC est en cours d'analyse puisque le personnel du bureau de Winnipeg approche l'âge de la retraite.

#### **BILINGUALISM COMMITTEE REPORT**

Chair - Jacques Carette

The role of the CMS Bilingualism Committee is to ensure the bilingual character of the CMS's education, publication, and research programs as well as the electronic and other activities of the Society.

The committee works hard to ensure that the CMS's policies were well aligned with its bilingual character, and in the past performed a fair amount of translation of highly mathematical documents. The policies have stabilised and little guidance is required. The committee has focused on quality assurance, where a first pass was done by a professional translation service (for larger pieces) or by CMS staff (for smaller items), which was double-checked by committee members. In both cases, the initial translations have been very good, resulting in a reasonable workload for the diminished committee.

The CMS Bilingualism Committee represents a solid commitment from the CMS to ensure that the organization can operate in Canada's both official languages. While providing quality control oversight the committee also indintifies medium-term goals for the CMS.

#### **EDUCATION COMMITTEE REPORT**

Chair: Peter Taylor (Queen's)

The role of the Education Committee in any professional academic society like the CMS is to help implement education strategies, consistent with the society's mission and strategic plan. The Committee is also involved in developing new ideas and strategies to either expand the existing programs or to create new ones in the goal of impacting more students and educators. This is accomplished by reviewing reports and issues that may have an impact on education-related topics pertaining to the CMS, by selecting winners for national education prizes and by recommending support for various educational activities. As part of these general objectives, the committee has a number of specific tasks. These include the selection of organizers for the education sessions at the semi-annual meetings, the annual selection of the winners of the Adrien Pouliot Award and the CMS Excellence in Teaching Award, the awarding of grants for math competitions run in different provinces, and the selection of the winners of the Math in Moscow Scholarship.

In 2012 the Committee met at each of the CMS meetings and its main activities can be summarized as follows:

- ➤ The winner of the 2012 Teaching Award was Dr. Veselin Jungic of Simon Fraser University.
- ➤ The winner of the 2012 Adrien Pouliot Award was Dr. Melania Alvarez of the University of British Columbia.
- The education session at the summer meeting in Regina was organized by Roberta La Haye (Mount Royal), Patrick Maidorn (Regina), and Kathy Nolan (Regina). Entitled Connections in Mathematics Education, the focus was on ideas and innovations relevant to elementary and secondary mathematics teachers. The Education plenary speaker Dr. Margaret Walshaw, Director of Research, College of Education and Co-director of the Centre of Excellence for Research in Mathematics Education (CERME) at Massey University in New Zealand.
- > The education session at the winter meeting in Montreal was organized by Peter Taylor (Queen's) and the

focus was on planning for CMEF 2014: "The future of the Canadian Math Education Forum." The education Plenary speaker was Ted Hsu, Member of Parliament for Kingston and the Islands, and the Liberal critic for Natural Resources.

- Provincial Grants: The committee has expanded somewhat the scope of these awards and has advertised them more broadly. The committee made 12 awards of a total amount of \$5000.00.
- Math in Moscow: The 2012 recipients were John Enns, Anne Isabel Gaudreau and Rochelle Nieuwenhuis.

#### **ELECTRONIC SERVICES COMMITTEE REPORT**

Johan Rudnick, Executive Director, CMS

The Electronic Services Committee (ESC) provides oversight and guidance for the services and support provided by the Electronic Services Group (ESG - Ottawa) and the electronic aspects of the work of the Publications Office (Pub - Winnipeg). While the absence of a Chair has meant that the work of the committee has not advanced, the work of the ESG has continued nonetheless.

Similar to 2011, in 2012, ongoing ESG operations continued to require almost half the time of the ESG, with the remaining time devoted to functional improvements and updates as well as new program initiatives. Projects of note in 2012, include the following:

- ➤ Kangaroo Math competition application was ported to a CMS servers, augmented with various enhancements, particularly online payment (via PayPal), financial handling and facilities for managing training enrolments.
- > The CMS accounting system was integrated with a CMS database reducing finance resource utilization by about one month per year.
- > A registration system was created for the Canadian Undergraduate Mathematics Conference.
- As part of an agreement with Statistics Canada (SC), their Census@School program application was transferred and migrated to the Statistical Society of Canada (SSC).
- Introduction of a pilot electronic application for CMS math competitions.
- External evaluation of the ESG system architecture.
- Electronic program access at the CMS semi-annual meetings (initiated by the Student Committee).

The SC project is a fine example of the CMS working with the SSC to address a pressing issue, that is, the demise of the SC Education Outreach program. As a result of joint CMS and SSC efforts, the Census@School program has continued under the SSC banner and the CMS has secured an archive copy of the SC Education Outreach program web materials.

The ESG continues to be a critical source of services and identity that the CMS offers to the wider Canadian mathematical community. Unfortunately, as was noted in 2011, an 'on-going backlog of infrastructure projects coupled with the heavy load of internal support, has meant that very little time was left for strategic thinking.'

To this end, one of the biggest challenges for the ESG has been to address the many legacy system challenges that have been built up over the years. In 2012 however, the group began to identify and plan for two strategic projects, a migration to an open source integrated digital platform, and a revamping of the CMS website.

#### **ENDOWMENT GRANTS COMMITTEE REPORT**

Chair - Hassan Safouhi (Alberta)

The CMS Endowment Grants Committee adjudicates proposals for projects that request financial support from the CMS Endowment Grants Competition. Projects that are funded must contribute to the goals of the CMS and to the broader good of the Canadian mathematical community.

In 2012, the committee awarded grants totaling \$7,500 to six projects:

- Community Appreciation of Mathematics through Outreach. [Organizer: John Grant McLoughlin, University of New Brunswick]
- Mathematical Circle of Sherbrooke. [Organizer: Vasilisa Shramchenko, University of Sherbrooke]
- MathLink. [Organizer: Yuly Billig, Carleton University]
- Archimedes Math Schools: Math enrichment for elementary school children. [Organizer: Anna Stokke, University of Winnipeg]
- Accromath. [Organizer: Alexandra Haedrich, Univerité du Québec à Montréal]

#### FINANCE COMMITTEE REPORT

Chair - Yvan Saint Aubin (Montréal)

The struggle of the CMS with its finance is now ten years old. The last few years have been better with a yearly operating surplus in 2010 (\$35,233), in 2011 (\$12,182) and, this year, a small deficit of \$28,175. The word "small" is only justified when one compares this year deficit with those of ten years ago that were measured in the few hundred thousands dollars. The fact is, the struggle for a balanced budget is not over.

The reasons are well-known. The subscriptions to our journals used to be a big source of revenues. The foreign subscriptions used to be charged in American dollars and the exchange rate brought many lavish surpluses in the nineties. Now the American and Canadian dollars are practically on par and many university libraries have started to cut their subscriptions. Not many CMS members have seen their NSERC grant increased in the last ten years. Many of us feel the pinch of a tight scientific budget and resent small increases in membership rates and meeting registration fees.

During the last ten years, the CMS has revised significantly many of its programmes, activities and ways of doing. The Ottawa office is doing wonders and, yet, still improving. In all of CMS activities there might be small economies to be done, but none will be sufficient to bring stability to CMS finances. The CMS needs new revenues! In the last two years, the Finance Committee devoted part of its meetings to discuss new

ventures that would be in line with CMS missions and could generate new revenues. Some were too grand, too marginal to the CMS core or even not serious enough. But some fell right under the CMS four guiding words: Advancement, Discovery, Learning and Application. Any of these ventures would require substantial initial investments, in money and volunteers' time and effort. Of course it will be to the Executive Committee and the Board to weigh up the various ideas brought up by our community and the Committee, and to lead the way.

#### INTERNATIONAL AFFAIRS COMMITTEE REPORT

Chair - Niky Kamran (McGill)

The International Affairs Committee oversees the activities associated with international mathematics organizations and considers other matters of an international nature which are of interest to the Canadian mathematics and mathematics education communities. The committee also acts as the Canadian National Committee to the International Mathematical Union (IMU).

In response to the call issued by the IMU in early 2012 for the nomination of plenary and sectional invited speakers at the International Congress of Mathematicians (ICM), to be held in Seoul in August 2014, the International Affairs Committee, working in close collaboration with the Research Committee, submitted a list of 22 names to the Chair of the ICM Program Committee, Professor Carlos Kenig of the University of Chicago. This list, which included detailed scientific justifications for each of the 22 nominations, was put together after extensive discussions of the joint committees, following a call for nominations sent to the Canadian mathematical sciences communities through the C-math mailing list and invitations sent to the Presidents of the national societies (CMS, CAIMS, SSC), the Directors of the National Institutes (CRM, Fields, PIMS) and the Director of BIRS. The IAC is hopeful that as a result of this systematic effort, the number of Canadian mathematical scientists invited to lecture at the ICM will be higher than at previous congresses, so as to better reflect the increased research strength of the Canadian mathematical community.

In 2012 the performance report prepared by the Committee and submitted to the National Research Council (NRC) was approved and the NRC funded the renewal of the CMS membership in the IMU as the Canadian National Committee. In addition, the CMS also maintained relations with 21 reciprocal and affiliated foreign mathematical societies.

#### **INVESTED FUNDS COMMITTEE REPORT**

Chair - David Bates

The Invested Funds Committee met twice during 2012, once in April and again in October. During the April meeting, the monies invested with TD Asset Management were reviewed. Overall, the funds grew 6.0% over the year ending March 2012 compared with a 5.94% rise in the corresponding indexes. The Committee's 2011 request for improved reporting for the Restricted Funds was discussed at length. Improved statements were not presented but, an accounting issue was identified as the problem, and an approach to address the issue was agreed to be undertaken by the CMS and a sub-committee of the IFC for the October meeting.

At the October meeting, a review of the Investment Fund Report as of September 30, 2012 revealed a yearly overall investment return of 11.39% compared with a 11.33% rise in the corresponding indexes. It was noted that the equity markets are currently experiencing lower volatility and moderately high returns while the (Government) bond market returns are at record lows. Sample statements intended to improve reporting for the Restricted Funds were presented and discussed. An agreed upon path was identified and a full set of statements in the new format should be available for the April 2013 meeting.

A byproduct of the reporting discussion was to express each future allocation from the CMS Endowment Fund as maximum allocation for the next year. Only money spent in that year, up to the maximum allocated for that year, would be deducted from the Fund. Once again, the Committee decided to recommend a flat dollar allocation from each endowment fund reflecting 3% of the corresponding projected year end fund value less administration costs. The following projected allocations for the Endowed Funds for 2013, net of administration fees, were approved: up to \$7,500 for the CMS Endowment Fund, \$4,321 for the Olympiads Fund, and \$0 for the David Borwein Fund noting that a payout from the Borwein Fund was not scheduled for 2013.

The Committee thanks Johan Rudnick and Yvette Roberts of the CMS office for their help in developing an improved and more transparent reporting format for the Restricted Funds.

#### MATHEMATICAL COMPETITIONS COMMITTEE REPORT

Chair - Bill Sands (Calgary)

The Mathematical Competitions Committee (MCC) oversees the Society's involvement in mathematics contests. The Society sponsors and runs two competitions: the Sun Life Financial Canadian Open Mathematics Challenge (COMC), the Sun Life Financial Repêchage and the Sun Life Financial Canadian



Mathematical Olympiad (CMO), both jointly sponsored with Sun Life. The MCC is also responsible for Canada's participation in the Asian Pacic Mathematics Olympiad (APMO) and the International Mathematical Olympiad (IMO).

Most of the work of the MCC is done by its three subcommittees (the COMC, CMO, and IMO Committees). Further information, including press releases, on most of the items in this report can be found through the CMS Competitions web pages

www.cms.math.ca/Competitions/ and www.cms.math.ca/MediaReleases/.

The MCC and (especially) its subcommittees are very active, with a large number of deadlines throughout the calendar. We would like to thank all members for their enthusiasm, reliability, and hard work in making sure that everything runs smoothly. The CMS Executive Office, especially the Executive Director Johan Rudnick, also deserves our gratitude for their dedication.

#### The Canadian Mathematical Olympiad

The 44th Canadian Mathematical Olympiad was written by 80 candidates on Wednesday, April 4, 2012. Nine students were awarded prizes:

FIRST PRIZE and the Sun Life Financial Cup: Calvin Deng, NC School of Science & Math, Cary, NC, USA (Canadian citizen);

SECOND PRIZE: Alex Song, Phillips Exeter Academy, Exeter, NH, USA (Canadian citizen);

THIRD PRIZE: Daniel Spivak, Bayview Secondary School, Thornhill, ON, and Kevin Zhou, Woburn C.I., Markham, ON.

HONOURABLE MENTIONS were awarded to: Matthew Brennan, Upper Canada College, Toronto, ON; John Ma, Interlake High School, Redmond, WA, USA; James Rickards, Colonel By Secondary School, Ottawa, ON; Kevin Sun, Kennedy Jr. High, Naperville, IL, USA; and Alexander Whatley, North Houston Academy, Spring, TX, USA. All Honourable Mentions with addresses located in the United States are also Canadian citizens.

A full report of the CMO, including the question paper, solutions and analysis of the marking can be found at www.cms.math.ca/Competitions/CMO/.

This year, the 61 students with highest COMC scores were invited to write the CMO. Another 65 students, next in rank, were invited to participate in the CMO Qualifying Rep^echage, a set of 8 problems posted online in early February. Invited participants had just one week to submit solutions. The Rep^echage was assembled by a group of volunteer experts, chaired by Adrian Tang, who handled all the grading himself. The top 14 students from the Repéchage were then invited to the CMO. A couple of additional students were invited to write the CMO based on other high school competition results and participation in the winter camp.

The Society is indebted to many sponsors for the success of the CMO, particularly to its dedicated and long-term major sponsor, Sun Life Financial.

#### The Asian Pacic Mathematics Olympiad

The 23rd Asian Pacic Mathematics Olympiad (APMO) was written on March 12, 2012 in North and South America, and on March 13 in the Western Pacic and Asia, with Japan serving as the coordinating country. Of the 36 Canadian students who wrote the four-hour competition, 10 were Canada's official participants.

The top Canadian student was Matthew Brennan (Upper Canada College, Toronto, ON), who was given a Gold Award. James Rickards (Colonel By Secondary School, Ottawa, ON) and Alex Song (Phillips Exeter Academy, Exeter, NH, USA) were given Silver Awards. Bronze Awards went to Leo Lai (Sir Winston Churchill S.S., Vancouver, BC), Yi Liu (York Mills C.I., North York, ON), Alexander Whatley (North Houston Academy, Spring, TX, USA), and Fei Wu (Upper Canada College, Toronto, ON). Honourable Mentions went to Letian Chen (Hon. Vincent Massey S.S., Windsor, ON), Allen Yang (Cary Academy, Cary, NC, USA), and Kevin Zhou (Woburn Collegiate Institute, Scarborough, ON).

Further details regarding the APMO are available through: www.cms.math.ca/Competitions/APMO/.

#### **International Mathematical Olympiad**

The 53rd International Mathematical Olympiad (IMO) took place in Mar del Plata, Argentina, from July 8 to July 15, 2012. The Team Leader was Jacob Tsimerman of Harvard University, the Deputy Leader was Lindsey Shorser of the University of Toronto, and the Deputy Observer was Ralph Furmaniak of Stanford University. The six high school students on the Canadian team were Matthew Brennan, Upper Canada College (Toronto, ON); Calvin Deng, North Carolina School of Science and Mathematics (Cary, NC); James Rickards, Colonel By Secondary School (Ottawa, ON); Alex Song, Phillips Exeter Academy (Waterloo, ON resident); Daniel Spivak, Bayview Secondary School (Toronto, Ontario); and Kevin Zhou, Woburn Collegiate Institute (Toronto, Ontario).

The Canadian team placed an unprecedented 5th out of 100 countries, our best showing ever. Gold Medals were awarded to Matthew Brennan, Calvin Deng, and Alex Song, a Silver Medal to James Rickards, and Bronze Medals to Daniel Spivak and Kevin Zhou. The team's total score was 159 out of 252. Individually, Alex Song placed fourth in the world, and Calvin Deng placed 11th. The CMS's Media Release on the 2012 IMO results is

at: http://cms.math.ca/MediaReleases/2012/imo-results.

Also noteworthy is the fact that one of the six IMO problems was proposed by Canada (by David Arthur). This was only the third time ever that a Canadian proposal has been chosen for the IMO.

The Winter Training Seminar was hosted by York University, January 3{8, 2012, and was attended by thirteen high school students from across Canada. The local organizer was Neal Madras, assisted by Alfred Pietrowski, Kate Singh, Ana Iorgulescu, Mike Pawliuk, and the staff of Norman Bethune College at York. The program of the seminar was organized by the three

Team Leaders (Jacob Tsimerman, Lindsey Shorser, and Ralph Furmaniak), with additional trainers Dorette Pronk, Alexander Remorov and Adrian Tang. The Summer Training Seminar took place at BIRS in Ban from June 24 to July 7, immediately before the team departed for Argentina. Training was done by the three Team Leaders, with help from David Arthur, Alex Fink, and Hunter Spink.

A report on the 2012 IMO by the Team Leader was published in the October/November 2012 issue of the CMS Notes. More information regarding the 2012 IMO can be found at: http://www.cms.math.ca/MediaReleases/and www.cms.math.ca./Competitions/IMO.

#### **CMS Canada Math Camp**

The Canada Math Camp (previously known as the National Math Camp) is designed primarily for younger Canadian students with at least two years remaining in high school (grades 8-10) and with the potential to compete at the Mathematical Olympiad level. Participation in this camp is by invitation only.

The 2012 Esso/CMS Canada Math Camp took place at the University of Toronto from July 28 to August 5, organized by Pamela Brittain, James Colliander, and Richard Cerezo, and again was a big success. Twenty-one students attended the camp (5 female, 16 male). The selection process is based predominantly on the results of the COMC. The revised camp format was very well received.

See the Education Committee report for information about other Math Camp activities.

#### The Sun Life Financial Canadian Open Mathematics Challenge (COMC)

The seventeenth writing of the COMC, the sixth under the banner of Sun Life Financial, took place on November 8, 2012. The contest was supported by a partnership of universities from across Canada, in every province in fact. The



CMS extends a special note of thanks and appreciation to all the volunteers, at several locations across the country, who helped to mark the competition papers.

The competition questions were developed by the 2012 Problem Committee which consisted of Adrian Tang (Google) who chaired and coordinated the committee, David Arthur (Google), Lino Demasi (SFU), Richard Hoshino (NII Tokyo), Andy Liu (Alberta), and Alexander Remorov (Toronto). The success of the COMC owes much to the quality of the questions developed for the competition, and the 2012 committee is to be thanked and commended for once again creating a competition that earned kudos from the participants.

As the title sponsor of the competition and longstanding sponsor of the CMS, the support of Sun Life Financial is very much appreciated and valued.

The COMC has several purposes. First and foremost, it aims to encourage students in their exploration of mathematics and problem solving. Second, the COMC provides an enrichment activity for teachers to use with their students during the Fall term. Third, the COMC is used by the CMS to identify students who will write the Canadian Mathematical Olympiad and who will attend, among other events, the Winter Training Seminar and the Canada Math Camp.

The 2012 COMC had an increase in participation to over 6000 students. The paper had an average mark of 31 out of 80, which was a bit lower than the previous year. One student achieved a perfect score of 80, compared to three the year before.

The top three Canadian competitors in the 2012 COMC were:

National Gold Medal: Alex Song, Phillips Exeter Academy, Exeter, NH, USA; National Silver Medal: Zhiyao (John) Ma, Interlake High School, Bellevue, WA, USA; National Bronze Medal: Daniel Spivak, Bayview Secondary School, Richmond Hill, ON.

Four other students were named to the Honour Roll: Calvin Deng (NC School of Science & Math, USA); Leo Lai (Sir Winston Churchill S.S., Vancouver, BC); Kevin Sun (Kennedy Jr. High, USA); and Alexander Whatley (North Houston Academy of Science and Mathematics, USA). In addition, hundreds of awards at the provincial level and at various regional and grade levels were made, and one \$500 prize, sixteen \$100 prizes, and about 200 T-shirts or USB thunb drives were given out through random draws.

Further details are available at: www.cms.math.ca/Competitions/COMC/.

#### NOMINATING COMMITTEE REPORT

Chair - Edwin Perkins (UBC)

Over 165 individuals contribute to the work of the CMS by serving as one or more of 297 Board of Directors, standing committee, sub-committee, or editorial members. The CMS Nominating Committee and various standing committees and boards actively solicit and recruit individuals with an interest in making a contribution to the Canadian mathematics community. The Nominating Committee is also responsible for reviewing the terms of reference for all the standing committees. The Nominating Committee convened largely electronically and by teleconference.

The members of the Nominating Committee are: Margaret Beattie, Octav Cornea, Jacques Hurtubise, James Lewis, Ed Perkins (chair), Keith Taylor and Noriko Yui.

In 2012, 168 appointments were initiated, including 60 standing committees. Nominations were also secured for the Executive election in 2013. The net result was that at the end of 2012 there were 36 vacancies on CMS committees. The Nominating Committee is currently working on filling these vacancies and many have already been addressed in 2013.

As the CMS moves forward it is important that the Nominating Committee invites new volunteers to work on its many initiatives and thus bring new ideas to the table and engage the next generation of the Canadian mathematics community. The CMS is grateful to all the volunteers who have served and continue to serve in a range of duties for the CMS.

#### **PUBLICATIONS COMMITTEE REPORT**

Chair - Nantel Bergeron (York University)

The CMS Publications Committee oversees and participates in various activities of the Society related to its publications. 2013 is my second and last year as chair of this committee, in 2014 I will be serving as a member helping the next Chair.

Michael Bennett, Patrick Brosnan and Zighou Hu continue to serve on this committee, and Olivier Collin is the representative of the Executive. As some of the member will retire, we should see new member in 2014.

The editors-in-chief of various journals and series serve ex-officio on Publications, as well as the Executive Director and publications support personnel.





#### **Canadian Journal of Mathematics and Canadian Mathematical Bulletin**

The current Editors-in-Chief of the Canadian Journal of Mathematics are Henry Kim and Robert McCann of the University of Toronto.

The Editors-in-Chief of the Canadian Mathematical Bulletin are Terry Gannon and Volker Runde of the University of Alberta.

There were no new associate editors in 2012 but many members will retire in 2013; we have announced a call for nominations for new board members in 2014.

The backlogs of both journals are in good shape and the online versions of preprints are now available at an early stage.

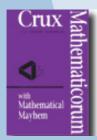
The 2012 G. de B. Robinson Award is awarded to Teodor Banica, Serban Belinschi, Mireille Capitaine and Benoît Collins for their paper Free Bessel Laws which appeared in the CJM (63:1 2011, 3-37; http://dx.doi. org/10.4153/CJM-2010-060-6). This prize honours a top paper published in CJM in 2010 or 2011. This coming year, we are seeking a strong paper in CMB published in 2011 or 2012 for this award.

## NOTES -

#### **CMS Notes**

The Editors-in-Chief of the CMS Notes are Robert Dawson of Saint Mary's University and Srinivasa Swaminathan of Dalhousie University. John Grant McLoughlin and Jennifer Hyndman are the Education Editors, Florin Diacu is the Research Editor and Renzo Piccinin is Book Reviews Editor. Johan Rudnick serves as the managing editor.

The online version of the Notes (since Jan 2012) aims to be of greater interest to our general members. Our executive and computer staff has dedicated time and energy to produce a better product and we feel that this is indeed well received.



#### **Crux with Mathematical Mayhem**

The Editors-in-Chief of Crux with Mathematical Mayhem is Shawn Godin of the Ottawa Region School and Johan Rudnick serves as the managing editor. We need to fill three more vacancies on the editorial board. CRUX is still in the process of developing a new plan to revitalize the publication.

# A Tayre Or Mathematics Anne T On an Mathematical Street I was to Product I was to Product

#### A Taste of Mathematics

The Editor-in-Chief of the series A Taste of Mathematics (ATOM) is Alistair Lachlan of Simon Fraser University and Johan Rudnick serves as the managing editor. One book has appeared in 2012:

ATOM Volume XIII: Quadratics and Complex Numbers by Edward J. Barbeau.



#### **CMS Books in Mathematics**

Karl Dilcher and Keith Taylor of Dalhousie University are the Editors-in-Chief of the CMS Books in Mathematics Series, published by Springer. We need to fill one vacancies on the editorial board.

On average, two volumes per year are produced. The following two volumes were produced in 2012:

- Interpolation and Sidon Sets for compact by Hare Graham. (2013) 249p. ISBN: 978-1-4614-5392-5
- Ordering Block Designs by Stevens Dewar (2012) 207p. ISBN: 978-1-4614-4325-4

The Publications Office is headed by Craig Platt of the University of Manitoba as Technical Editor and Michael Doob of the University of Manitoba as Technical Consultant. Lee-Ann Baldwin is the administrative assistant and Laura Lamont is the technical assistant. Computer support from Steve La Rocque and Alan Kelm, and administrative support from Denise Charron comes from the Ottawa office.

We thank everyone for the efforts they have put in on this extensive publishing effort.

#### RESEARCH COMMITTEE REPORT

Chair - Lia Bronsard (McMaster)

The CMS Research Committee oversees the research activities of the Society. This includes helping to select the scientific organizers for the summer and winter meetings, participating in the scientific organization of these meetings, playing a major role in the selection of winners for the research prizes and advising the Executive committee on research related issues.

#### **Awards**

The Research Committee selects the winners of the Coxeter-James, Jeffery-Williams and Krieger-Nelson Prizes. These prizes recognize outstanding contributions to research by members of the Canadian mathematical com-

munity (the Coxeter-James Prize by younger mathematicians, and the Krieger-Nelson Prize by outstanding women mathematicians).

The 2012 prize winners were as follows:

Coxeter-James: Dr. Gregory Smith (Queen's University)

Jeffery-Williams: Dr. Roland Speicher from Queen's University

Krieger-Nelson: Dr. Ailana Fraser (University of British Columbia)

The Research Committee also appoints the members of the Doctoral Prize Selection Committee (one of whom must be a member of the Research Committee). The Doctoral Committee selected Mathew Kennedy (Carleton University) as the recipient of the 2012 Doctoral Prize for his thesis supervised by Heydar Radjavi.

2012 CMS Summer Meeting (June 2--4, Regina, Saskatchewan)

The Scientific Directors for the meeting were Doug Farenick and Don Stanley, (University of Alberta)). There were 17 scientific sessions. The meeting attracted 331 participants. The program included plenary lectures by Dror Bar-Natan (Toronto), Lisa Jeffrey (Toronto), Marius Junge (Illinois-Urbana Champaign), Ulrike Tillmann (Oxford), and Margaret Walshaw (CERME; Massey, NZ)

A public lecture was given by John Fyfe (Canadian Centre for Climate Modelling and Analysis; Victoria), on Mathematics and Climate Change.

Prize lectures were given by Greg Smith (Queen's University)-Coxeter-James Prize, and Ailana Fraser (UBC)—Krieger-Nelson Prize.

#### 2012 CMS Winter Meeting(December 7-10, Montréal, Québec)

This meeting was a joint venture with the CRM. The Scientific Director was Luc Vinet, Université de Montréal and there was an additional scientific committee which was composed of Jacques Bélair (Montréal), François Bergeron (UQAM), John Harnad (Concordia), Niky Kamran (McGill), François Lalonde (Montréal), Sabin Lessard (Montréal), Christiane Rousseau (Montréal) and Jean-Marc Rousseau (CIRANO). The meeting had 21 scientific sessions and 6 special sessions. The meeting attracted 557 participants.

Plenary lectures were given by Graciela Chichilnisky (Columbia), Ted Hsu (Physicist and Federal MP), Martin Nowak (Harvard), Duong H. Phong (Columbia), Catherine Sulem (Toronto).

Public lectures were given by Ivar Ekeland (UBC; Paris-Dauphine) "Une longue histoire: la planète Terre et les mathématiques", and by Doyne Farmer (Oxford) "The complex challenge of sustainability".

Prize lectures were given by Roland Speicher (Universität des Saarlandes)- Jeffery-Williams Prize, and the Doctoral Prize by Matthew Kennedy

#### STUDENT COMMITTEE REPORT

Co-Chairs - Irena Papst (McMaster), Kseniya Garaschuk (Victoria)

Studc had a very successful year, marked in particular by a noticeable increase in student interest in the committee's activities. Notes from the Margin, the committee's newsletter, has received more submissions than ever, necessitating an increase from eight to 12 pages per issue. The newsletter has likewise benefited from an increase in readership, with 2012 marking the official launch of online publication alongside the usual print format. This switch to a more accessible digital format was also extended to the 2012 CMS Winter Meeting program, which was made available by Studc on Guidebook, a free online tool that allows event organizers to create a digital program that can be updated in real time and used by participants to make custom event schedules on their smartphones, tablets, and/or laptops. Finally, our regularlyupdated Facebook page has enjoyed a huge increase in popularity, tripling the number of followers in last year. Students seem to see it as an easy means to stay connected with the Canadian mathematical community. This interest was also reflected in the record attendance at the 2012 CMS Winter Meeting Student Social. Overall, the Student Committee has enjoyed a rise in activity and hopes to build on this momentum in the years to come, mainly by expanding existing successful initiatives, as described below.

#### **Change of Membership**

In 2012, Studc saw a change of several members. We say goodbye to Sarah Plosker (Chair), Jerrod Smith and Crystal Parras (CUMC 2012 President) and welcome new members Irena Papst (Chair), Amanda Malloch, David Petersen and Jean Lagacé (CUMC 2013 President).

#### CMS Summer Meeting (Regina, SK)

AARMS/CMS Student Poster Session

There were 18 posters in this meeting's poster session, a healthy number for a summer meeting, given that these meetings are usually not as well-attended by students as the winter ones. The three winners were all from Regina: Alison Purdy (AARMS Award), Angshuman Bhattacharya (CMS President's Award) and Tyler Wood (CMS Student Committee Award).

The higher number of participants at this poster session was in part due to University of Regina covering poster printing costs. Since such financial incentives prove to encourage higher participation, we will consider implementing them for future meetings – whether in the form of covering poster printing costs or possibly waiving meeting registration fees for poster session participants. The latter option could be rather sustainable since these students often only participate in the poster session and sometimes in the Student Social, workshop, or panel, all of which are rather inexpensive to run.

#### **Student Social**

The Student Committee strives to plan student socials that profit from local culture. In Regina, we chose to organize a group excursion to Mosaic – a multicultural festival with pavilions all across the city, featuring music, dance, food, and more, from various cultures. Stude provided free Mosaic passes to students registered for the 2012 CMS Summer Meeting.

As a group of approximately 25 people, we visited 5 pavilions, participated in a hot dog eating contest and several cultural dance-offs. The event proved a success, with participants commenting on the outing's uniqueness and truly Canadian multicultural value.

#### CMS Winter Meeting (Montréal, QC)

#### **AARMS-CMS Student Poster Session**

This poster session was one of the most successful so far. There were 23 posters presented by the students including two posters from high schools students. The jury was composed of six members (two student committee members and four professors) who were given the difficult task of choosing the three most impressive posters presenters. In the end, the jury selected three excellent candidates; Behrang Forghani (Ottawa) received the AARMS Award, Asad Haris (McGill) received the CMS Award, and Eric Naslund (UBC) received the CMS Student Committee Award.

#### **Student Social**

Student participants at the 2012 CMS Winter Meeting were invited to the Student Social on Saturday, December 8th. In keeping with the theme of celebrating local traditions, the social consisted of two activities: a fireworks show and a pub night. We walked from the hotel as a group to the Old Port of Montreal to watch the TELUS Fire on Ice musical fireworks display.

This annual show is crafted by internationally-recognized fireworks experts. Students appreciated the opportunity to visit the Old Port of Montreal under the lights of the fireworks. After the show, the students gathered in Les 3 Brasseurs, a microbrewery pub in Old Montreal. A spacious section was reserved for our group on the second floor. Students had the chance to get to know each other while having a drink and a bite to eat.

Overall, we had an attendance of more than 40 students, and most stayed for the entireevent. The high attendance could be explained by advertisements made through the Stude Facebook page (including an event that was created with more information about the evening's activities), through the flyers distributed at the registration and the poster session, and through advertising by word-of-mouth.

#### Guidebook

For the 2012 CMS Winter Meeting, the Student Committee implemented an online version of the conference program, accessible to any participant on their smartphone, tablet, or laptop. Guidebook, a free online service, allows event participants to create their own personal schedules based on information contained in the main digital version of the conference program, including speakers names, talk titles and abstracts, times, event locations and even maps of the venue.

Another advantage of an online program through Guidebook is that it is very quick and easy to update the program during the conference; the online schedule can be modified in real time, and specifically, cancellations or time/room changes can be made very easily. In fact, the Guidebook app notifies users of changes in any events explicitly.

#### **Challenges**

Studc members uploaded all of the meeting information, which proved to be a very labour-intensive task because the information was not in a Guidebook-friendly format. All of the information had to be copy-pasted, one item at a time, from the CMS website and into a spreadsheet, before being uploaded to Guidebook.

Throughout the conference, there were 55 participants who accessed the program using Guidebook. We believe that this relatively small number was due in part to an advertising shortage – there were only small flyers available at the conference. Another issue related the Guidebook use was the confusion surrounding the availability of Wi-Fi at the 2012 CMS Winter Meeting, which is necessary to run the application. However, the meeting organizers are wellaware of this problem and will certainly address it for future meetings.

#### **Looking Ahead**

Despite the challenges above, we feel that the digital Guidebook program is a viable alternative to the printed version. The time required to set up the program on Guidebook can be significantly reduced if CMS provides the committee with session information in a spreadsheet form, which should not be too difficult for the meeting organizers given the way they store this information for other use.

Moreover, the participants that discovered Guidebook were very enthusiastic and impressed by the service. As a result, we believe that the number of Guidebook users will likely increase if the service is used for future CMS Meetings. We hope to improve Guidebook advertising for the next meeting by including the app logo on the meeting's website, as well as flyers in the conference package instead of at the registration table. Further consideration should be given to including the Guidebook option for the program in the meeting registration form with an option to indicate whether a participant would specifically like a print copy of the program. Such a feature would allow the CMS to only print programs that will definitely be used by participants, cutting down costs and waste.

An important feature of Guidebook to keep in mind is that the service is free for up to 250 users/event — that is, only 250 people can have the event linked to their app at the same time. Given that CMS Meetings generally have more than this many participants, Guidebook's free upper limit will become a concern if CMS were to move to Guidebook as an alternative to a paper program — at that point, the CMS should consider the Guidebook pricing options. In any case, Guidebook is definitely a much more environmentally-friendly alternative to the hefty paper programs and is a less-expensive option than paper printing even if we have to purchase the service with more downloads.

### **Canadian Undergraduate Mathematics Conference (CUMC)**

In July 2012, the 19th annual CUMC was co-hosted by the University of British Columbia's Okanagan campus and Okanagan College in Kelowna, BC. The conference welcomed over 150 undergraduate students from across the country and featured seven keynote speakers. There were over 80 student talks, covering a wide variety of topics such as mathematical biology, game theory, and optimization. However, the conference continues to struggle with enticing participants to present talks in French because these talks typically have lower attendance given that many participants are solely Anglophone. This effect may have been magnified this year due to the high costs associated with travelling to Kelowna from the Francophone regions of Canada.

On the social side, participants were able to opt-in to a wine tour at Ex-Nihilo, a winery in the lush Okanagan

Valley, take part in a movie night, as well as Opening and Closing Banquets. The conference again featured a Women in Math and Science dinner, which was made exclusive to women and women-identified participants. All other participants were invited to an arcade night at Scandia Golf and Games in lieu of this dinner.

Université de Montréal in Montreal, QC will host the 20th CUMC from July 10th to July 14th.

#### **CUMC Award for Excellence**

The year 2012 was the first year for the newly branded CUMC Award for Excellence, a name that truly reflects the nature of the scholarship. The award, previously known as CUMC Scholarship, is worth \$500, and is given to an undergraduate mathematics student for the purposes of attending and participating in the CUMC the year it is awarded. All applicants have to submit a statement of interest, a CV and a reference letter for the consideration of the Committee. The Student Committee then judges these applications on university and mathematical community involvement, academic excellence and research potential. In 2012, we received a total of 12 very high-quality applications. The award ultimately went to Irena Papst (McMaster).

#### **Looking Forward**

The Award consistently attracts a good number of high-quality applications. As a result, we are looking into capitalizing on this success by expanding the initiative. Just as the CMS Meeting Student Poster Sessions have multiple awards related to different branches of the mathematical community, we hope to contact organizations such as AARMS, PIMS, and the Fields Institute to investigate the possibility of creating awards partially sponsored by Studc, and partially sponsored by an external organization. Funding for the Studc portion could come from the CUMC contingency fund, which is added to each year but has never been tapped into for the intended purpose. By creating more sponsored awards, not only would Studc increase its own publicity (and that of the CMS by association), but it would also enable deserving students to participate in the CUMC while being recognized for their achievements.

#### **Regional Funding**

In 2012, Stude sponsored 6 events as part of our regional funding initiative. The following events benefitted from Stude's sponsorship in 2012:

- Math Learning Seminar Series, University of Guelph, Guelph, ON.
- > Ottawa Mathematics Conference, University of Ottawa, Ottawa, ON.
- Ottawa-Carleton Discrete Math Days, Carleton University, Ottawa, ON.
- PIMS Young Researchers Conference, University of Calgary, Calgary, AB.
- BC Combinatorics Day, University of Victoria, Victoria, BC.
- Seminaires universitaires en mathématiques à Montréal, Montréal, QC.

The larger number of events sponsored has certainly contributed to the observed increase in Studc's popularity over the past year. Moreover, these events were reasonably wellspread across the country, reinforcing Studc's commitment to supporting the mathematical community throughout Canada and not just

in regions with a large number of post-secondary institutions. However, we acknowledge that we did not support any institutions in Atlantic Canada; unfortunately, we received no requests from such institutions and hope to address this issue at the CMS Summer Meeting 2013 in Halifax by building connections with students in the area. We hope to continue promoting Stude's regional funding option in all regions and to continue encouraging students across the country to plan local events that strengthen Canada's mathematics community.

#### **Notes from the Margin Student Newsletter**

Notes from the Margin, our committee's publication, has been steadily gaining popularity, with 2012 being its most successful year yet. Given that we aim to represent the diversity of Canadian mathematics, every edition now features several research articles (accessible to a wide audience of students), some opinion pieces, informal reports on Stude projects and administrative notes and announcements (in both English and French). We also seek to emphasize the bilingual nature of our country and community. In particular, the September 2012 issue included our first research article in French.

#### Successes

The response to the Margin from the student community has been very encouraging. We now receive more submissions than the standard eight-page format can accommodate, even though we try to keep articles to a concise length (no more than two pages, which is only reserved for the special feature pieces). We have also managed to reduce our costs by finding a new, more economical graphic designer. Due to the increase in student interest and a decrease in costs, we are now looking at producing 12-page issues regularly.

We have also managed to substantially increase the newsletter's reach at absolutely no additional cost by publishing issues online in addition to the standard print distribution. We have set up an account for the Margin on issuu.com, a free online publishing service. All members of the mathematical community can read the Margin on issuu.com using an interactive document viewer, or they can download a .pdf of the full issue to their machine for offline reading. Moreover, Issuu features easy-to-use sharing features, which allow individuals to share our publication via email, Facebook, Twitter, and other similar services. Online publishing has also enabled us to share Margin issues through our Facebook page, which has contributed to an increased readership of the Margin, as well as an increase in Facebook page usage. Lastly, Issuu features interactive widgets that can be embedded into external websites so that readers do not have to explicitly visit Issuu itself to read the Margin.

We currently have all of the past issues of the Margin archived on Issuu and we plan on launching upcoming issues through this service (alongside our usual print distributions). Moreover, we plan integrating the Issuu service with our online presence by embedding widgets of the current issue (as well as all past issues) into the existing Margin section on the Stude official website.

#### **Challenges**

Apart from clear budgetary constraints related to the high-quality design and printing of each newsletter, the main concern with the Margin is the heavy load of editorial work. The numerous submissions need to be heavily edited to be suitable for our less technical publication meant to appeal to a more general audience of students. Moreover, communicating with the graphic designers related to issues of mathematical content is another time-consuming task. We continue to seek a more sustainable editorial model for this publication.

One possibility would be to simply engage more student editors to make each individual's workload more reasonable. Another idea might be to create an editorial board, which features more specific roles for each member, such as "Content Editor", "Graphics Editor", and an Editor-in-Chief that oversees and coordinates production of each issue. In creating an editorial board, not only would the members responsible have clearly defined tasks, but we would also be able to involve a larger number of students in the production of the Margin, which is a valuable volunteer opportunity.

Financially, we managed to stay within the 2012 budget, but we will need to develop an outside sponsorship model for the publication to truly succeed, especially if we wish to continue producing a visually impressive and high-quality publication.

#### **Studc Online Presence**

#### Website

While the Studc website is finally re-organized and does contain all of the relevant information, we struggle to continuously update it with current committee activities. We are actively investigating ways in which we can ensure the website stay up-to-date by minimizing the time it takes to implement updates. A website re-design is also currently being implemented.

#### Facebook

We closed our Facebook group and created a Facebook page (CMS Studc) because Facebook pages are more conducive than groups to promoting projects and events to math students in Canada. We use the Facebook page to keep the students updated with the release of the Notes from the Margin, the different kind of financial support available for them and the events organized by Studc or other organizations that are relevant for students. We also post pictures of the social and poster session so students have a better idea of what the committee does. Lastly, we also use it to share interesting mathematics news beyond Studc's direct activities to appeal to students' interests and keep them engaged in the general mathematical community.

The page was created at the end of February 2012. After more than a year, it has reached 148 followers. The page is featured in the "Likes" section of the CMS Facebook page and is maintained by a committee member dedicated to the task, as well as the two committee chairs.

We hope to increase the number of followers in the forthcoming months by continually updating it with information Canadian mathematics students find both interesting and relevant.

#### **Stude Operations Manual**

Work has begun to create a Stude Operations Manual that clearly defines all the activities of the committee and, particularly, to aide in a transition between chairs. It will also include guidelines for Stude's visual branding and web presence. While it is still work in progress, the comprehensive draft on it should be available by the middle of 2013.

#### **Looking Ahead**

Stude hopes to build on the momentum cultivated in 2012 primarily by continuing to build on existing successful initiatives. In short, we hope to potentially expand the CUMC Award for Excellence program to

include co-sponsored awards with other Canadian mathematical organizations. Building further on our successful online presence through Facebook and Issuu, we are considering launching a Stude Twitter account, as this social media platform seems to be increasingly popular with university students of all levels. Lastly, we hope to streamline the Guidebook process to help CMS move to a digital program format for the semi-annual meetings. Any ideas, comments, questions, and concerns related to this report and any other Stude activities are welcome and should be directed to chair-stude@cms.math.ca.



#### WOMEN IN MATHEMATICS COMMITTEE REPORT

Chair - Shannon Fitzpatrick (University of Prince Edward Island)

The Women in Math Committee had a almost complete turnover in membership in July 2012, welcoming Sara Faridi, Galia Dafni, Malabika Pramanik, Megumi Harada and Elena Braverman as new members. Over the past year, we were proud to support "Two weeks at Waterloo", a summer school for women in math. This was a very successful with many participants reporting that they were more interested in grad school than before, and that they really enjoyed the opportunity to work with other women. We were also happy to support the Women in Math dinner held at the CUMC 2012 conference.

Apart from these supporting rolls, we have been busy organizing our Panel Discussion and Luncheon for the CMS 2013 Summer Meeting. We are looking forward to being joined by Lisa Goldberg, Executive Director of Applied Research, MSCI; Lia Bronsard, Professor of Mathematics, McMaster University; and Jeannette Janssen, Professor of Mathematics, Dalhousie University and Director of AARMS. It is sure to be an interesting and informative discussion.

The complete CMS Financial Statements (December 31, 2012); including notes, are posted on the CMS website; the information presented in this annex is extracted from the statements.

**ANNEX A** 

Canadian Mathematical Society Consolidated Statement of Financial Position as at December 31, 2012

Société Mathématique du Canada État consolidé de la situation financière au décembre 31, 2012

	Op	erations	Re	stricted Funds			
		d / Fonds	Solo	des des Fonds	Total	Total	
	d'adr	ninistration		Affectés	2012	2011	
ASSETS							ACTIF
CURRENT ASSETS							ACTIF À COURT TERME
Cash	\$	119,342	\$	-	\$ - , -	\$ 147,147	Encaisse
Short-term investments		88,808			88,808	113,859	Placements à court terme
Accounts receivable		350,232		15,100	365,332	282,433	Débiteurs
Prepaid expenses		48,106		- (100.000)	48,106	43,712	Frais payés d'avance
Due from (to) specified fund		138,230		(138,230)	-	-	Soldes interfonds
		744,718		(123,130)	621,588	587,151	
Investments (note 6)		2,564		1,820,794	1,823,358	1,680,732	Placements (note 6)
Capital assets (note 8)		23,605		-	23,605	22,176	Immobilisations (note 8)
	\$	770,887	\$	1,697,664	\$ 2,468,551	\$ 2,290,059	
LIABILITIES							PASSIF
CURRENT LIABILITIES							PASSIF À COURT TERME
Accounts payable and accrued liabilities	\$	281,592	\$	-	\$ 281,592	\$ 238,789	Créditeurs et charges à payer
Deferred revenue (note 9)		369,575		196,978	566,553	546,324	Apports reportés (note 9)
		651,167		196,978	848,145	785,113	
FUND BALANCES							SOLDES DES FONDS
Restricted (note 12)				1,500,686	1,500,686	1,367,160	Affectés (note 12)
Unrestricted		119,720		-	119,720	137,786	Non affectés
		119,720		1,500,686	1,620,406	1,504,946	
	\$	770,887	\$	1,697,664	\$ 2,468,551	\$ 2,290,059	

**ANNEX A** 

The complete CMS Financial Statements (December 31, 2012); including notes, are posted on the CMS website; the information presented in this annex is extracted from the statements.

		vancement Learning				overy		ication	Total	Total	
	Avano			Apprentissage		uverte		ication			
REVENUE	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	REVENUS
Donations	\$ 8,457	\$ 6,561	\$ 3,526	\$ 86,173	\$ 699	\$ 842	\$ -	\$ -	\$ 12,682	\$ 93,576	Dons
Grants	-	-	117,582	83,400	32,449	39,300	-	-	150,031	122,700	Subventions
Membership fees	139,789	144,913	-	-	-	-	-	-	139,789	144,913	Cotisations des membres
Registration fees and other sales	-	633	80,246	70,060	195,278	192,174	-	-	275,524	. ,	Inscriptions et autres ventes
Subscriptions and publications	1,477	760	34,317	40,287	676,121	669,626	-	-	711,915		Abonnements et publications
Foreign exchange	(997)	(1,158)	449	(54)	10,658	(2,642)			10,110		Devises étrangères
Services, advertising and sales	11,079	9,853	2,841	1,728	11,004	12,873	88,739	100,530	113,663	124,984	Publicité et ventes promotionnelles
Other	75,000	-	-	-	-	-	-	-	75,000	-	Autre
	234,805	161,562	238,961	281,594	926,209	912,173	88,739	100,530	1,488,714	1,455,859	
EXPENSES											DÉPENSES
National projects	7,363	2,983	181,821	150,970	-	-	-	-	189,184	153,953	Projets nationaux
Speakers and prizes	215	433	21,681	16,249	29,550	34,798	-	-	51,446	51,480	Conférenciers et prix
Production	20,551	22,165	19,119	28,261	68,827	66,089	-	-	108,497	116,515	Production
Promotional materials	6,387	6,463	6,020	4,159	4,598	3,836	-	-	17,005	14,458	Matériel promotionnel
Salaries and benefits	305,916	292,358	118,517	114,035	236,121	243,398	70,470	66,063	731,024	715,854	Salaires et avantages sociaux
Boards and committees	31,174	32,430	20,468	8,643	79,897	62,617	-	-	131,539	103,690	Conseil d'administration et comités
Legal and audit	16,583	30,437	-	-	-	456	-	-	16,583		Honoraires légaux et de vérification
General administration	52,345	43,678	33,939	34,792	150,027	151,375	17,551	17,895	253,862		Frais généraux d'administration
Amortization of capital assets	7,233	7,265		-	407	5,683	-	-	7,640	12,948	Amortissemment des immobillisations
	447,767	438,212	401,565	357,109	569,427	568,252	88,021	83,958	1,506,780	1,447,531	
NET REVENUE (EXPENSES)	\$ (212,962)	\$ (276,650)	\$ (162,604)	\$ (75,515)	\$ 356,782	\$ 343,921	\$ 718	\$ 16,572	\$ (18,066)	\$ 8,328	REVENU NET (DÉPENSES)
Fund balances, beginning of year									137,786	129,458	Solde des fonds au début
FUND BALANCES, END OF YEAR	R								\$ 119,720	\$ 137,786	SOLDE DES FONDS À LA FIN

See accompanying notes / Voir les notes complémentaires

**ANNEX A** 

The complete CMS Financial Statements (December 31, 2012); including notes, are posted on the CMS website; the information presented in this annex is extracted from the statements.

Canadian Mathematical Society Statement of Revenue, Expenses and Changes in Fund Balances, Restricted Funds for the year ended December 31, 2012 Société Mathématique du Canada État des revenus, dépenses et évolution des soldes des fonds, Fonds affectés pour l'exercice terminé le 31 décembre 2012

	Legacy Fund / Fonds de l'héritage		Endowment Fund / Fonds de dotation		Mathematical Olympiads Fund Fonds pour Olympiades de mathématiques			Borwein Distinguished Career Fund Fonds Borwein de carrière distinguée		Total Total		Total		
											2012		2011	
REVENUE														REVENUS
Donations	\$	100	\$	1,535	\$		780	\$	2,110		,	\$	4,729	Dons
Dividends, interest and other income		32,509		14,608			7,304		1,980		56,401		50,219	Dividendes, intérêts et autres revenus
Gain (loss) on investments due to				04.400			10.010						(0.000)	Gain (perte) sur placements causé par les
change in market value		54,373		24,432			12,216		3,311		94,332		(6,880)	fluctuations de la valeur du marché
		86,982		40,575			20,300		7,401		155,258		48,068	
EXPENSES														DÉPENSES
Projects		-		2,900			3,832		-		6,732		7,500	Projets
Service fees		8,646		3,885			1,942		527		15,000		15,000	Frais de courtage
Boards and Committees		-		-			-		-		-		-	Conseil d'administration et comités
Speakers and prizes		-		-			-		-		-		-	Conférenciers et prix
Other compensation		-		-			-		-		-		-	Autre rémunération
		8,646		6,785			5,774		527		21,732		22,500	
NET REVENUE (EXPENSES)	\$	78,336	\$	33,790	\$		14,526	\$	6,874	\$	133,526	\$	25,568	REVENU NET (DÉPENSES)
Fund balances, beginning of year Contribution (from) to		710,522 (2,110)		401,527			200,751		54,360 2,110		1,367,160		1,341,592	Solde des fonds au début Contribution (des) aux
FUND BALANCES, END OF YEAR	\$	786,748	\$	435,317	\$		215,277	\$	63,344	\$	1,500,686	\$	1,367,160	SOLDE DES FONDS À LA FIN

## **ANNEX B**



### CMS BOARD OF DIRECTORS AND COMMITTEES

The CMS is managed by an Executive Committee which reports to the Board of Directors. The CMS operates by enlisting the participation of our members in an extensive committee structure. The following lists include all those who have served on the CMS board and committees throughout 2012. The CMS would like to acknowledge and thank the following individuals, without whom the work done by the CMS to promote the advancement, discovery, learning and application of mathematics would not be possible.

## Board of Directors (as of Dec. 31, 2012)

Tim Alderson
Martin Barlow
David Bates
Jerry Bona
Elena Braverman
Virginie Charette
Gerald Cliff
James Colliander
Olivier Collin
Chantal David
Karl Dilcher
Shannon Fitzpatrick
Brian Forrest
Kseniya Garaschuk
Eyal Goren

Bernard Hodgson
Jacques Hurtubise
Stephen Kudla
Marcelo Laca
Paul Mezo
Maung Min-Oo
Alexander Nabutovsky
Adam Oberman
Irena Papst
David Rodgers
Johan Rudnick
Hassan Safouhi
Anna Stokke
Keith Taylor
Hugh Thomas

Thank you to the following member who also served in 2012:

Sarah Plosker

**Ronald Haynes** 

### **Executive Committee**

President: Keith Taylor Vice-President - Ontario: Stephen Kudla

Past President: Jacques Hurtubise Vice-President - Western Prov. & Territories: Elena

Treasurer: David Rodgers Braverman

Vice-President - Atlantic: Karl Dilcher Executive Director and Secretary: Johan Rudnick

Vice-President - Quebec: Olivier Collin

### **Advancement of Mathematics Committee**

**Chair: Keith Taylor** 

Steven Boyer V. Kumar Murty
Jacques Hurtubise David Rodgers
Michael Lamoureux Johan Rudnick

**Sub-Committee: Fundraising Committee** 

Chair: Keith Taylor

Jacques Hurtubise

David Rodgers

Johan Rudnick

## **Bilingualism Committee**

**Chair: Jacques Carette** 

Antoine Deza Gilles Lamothe
Claude Laflamme Johan Rudnick

### **Distinguised Awards Committee**

Lia Bronsard Keith Taylor
Jacques Hurtubise Peter Taylor

### **Education Committee**

**Chair: Peter Taylor** 

Karl Dilcher
Brian Forrest
Jérôme Proulx
Kseniya Garaschuk
Shawn Godin
Richard Guy
J. Harley Weston
Joseph Khoury
Ping Zhou

Sub-Committee: Education Materials on the CMS website

**Chair: Tara Taylor** 

Joseph Khoury Peter Taylor

**Sub-Committee:** Grants for Provincial Competitions

**Chair: Ping Zhou** 

Richard K. Guy Elaine Simmt

Sub-Committee: Selection Committee for the Adrien Pouilot Award

**Chair: Peter Taylor** 

Brian Forrest Tara Taylor

Mark Mac Lean

Sub-Committee: Selection Committee for the Excellence in Teaching Award

**Chair: Peter Taylor** 

Joseph Khoury Ping Zhou

Jérôme Proulx

Sub-Committee: Selection Committee for the Math in Moscow Scholarship

**Chair: Joseph Khoury** 

Shaun Fallat Robert Woodrow

## **Electronic Services Committee**

Elena Braverman

Jason Brown

Andrew Irwin

Michael Doob

Spiro Karigiannis

#### **Endowments Grants Committee**

Chair: Hassan Safouhi

Megumi Harada Odile Marcotte

Wendy MacCaull

#### **Finance Committee**

**Chair: Yvan Saint-Aubin** 

David Bates David Rodgers
Douglas Farenick Johan Rudnick
Jacques Hurtubise Luis Seco
Jeremy Quastel Keith Taylor

### **International Affairs Committee**

**Chair: Niky Kamran** 

Steven Boyer Marco Merkli
Kenneth Davidson Gordon Slade
Gail Ivanoff Keith Taylor

### **Invested Funds Committee**

**Chair: David Bates** 

Thomas Hurd David Oakden
Richard Johnston David Promislow

## **Mathematical Competitions Committee**

**Chair: Bill Sands** 

Andrew Adler Robert Morewood
Edna James Johan Rudnick
Margarita Kondratieva Keith Taylor
Alistair Lachlan Harley Weston
Neal Madras Robert Woodrow

## Sub-Committee: Canadian Open Mathematics Challenge Committee

**Chair: Robert Woodrow** 

Karl Dilcher Mark Mac Lean Frédéric Gourdeau Johan Rudnick Joel Kamnitzer Adrian Tang

Joseph Khoury

#### Sub-Committee: Canadian Mathematical Olymiad

Chair: Andrew Adler

Omer Angel Robert Morewood

Daniel Brox Naoki Sato
Robert Israel Adrian Tang
Kalle Karu Karen Yeats

#### Sub-Committee: International Mathematical Olympiad Committee

**Chair: Robert Morewood** 

Ralph Furmaniak Jacob Tsimerman Bill Sands Yufei Zhao

**Lindsey Shorser** 

Thank you to the following members who also served in 2012:

Richard Hoshino Dorette Pronk

## **Nominating Committee**

**Chair: Edwin Perkins** 

Margaret BeattieJames LewisOctav CorneaKeith TaylorJacques HurtubiseNoriko Yui

## **Publications Committee**

**Chair: Nantel Bergeron** 

Michael Bennett Olivier Collin
Murray Bremmer Kenneth Davidson
Patrick Brosnan Zhiguo Hu

### **Research Committee**

**Chair: Lia Bronsard** 

Louigi Addario-Berry Charles Doran
Anne Bourlioux Edgar Goodaire
James Colliander Stephen Kudla

Sub-Committee: Doctoral Prize Selection Committee

Chair: Louigi Addario-Berry

Marco Gualtieri Malabika Pramanik

Theodore Kolokolnikov

#### **Student Committee**

Chair: Irena Papst, Sarah Plosker

Gary Bazdell David Peterson
Kseniya Garaschuk Louis-Xavier Proulx
Jean Lagacé Johan Rudnick
Amanda Malloch David Thomson
Mark Penney Robert Woodrow

Thank you to the following members who also served in 2012:

Crystal Parras Jerrod Smith

Sarah Plosker

### **Women in Mathematics Committee**

**Chair: Shannon Fitzpatrick** 

Elena Braverman Megumi Harada Galia Dafni Malabika Pramanik

Sara Faridi

## **ANNEX C**



## CMS EDITORIAL BOARDS as of Dec 31, 2012

CMS publications are an important component of promoting the advancement, discovery, learning and application of mathematics. The CMS would like to acknowledge and thank the following individuals who serve on the editorial boards of these publications for their hard work and dedication.

## Canadian Journal of Mathematics/ Canadian Mathematical Bulletin

Terry Gannon Henry Kim Robert McCann Johan Rudnick Volker Runde Editor-in-Chief (CMB)
Editor-in-Chief (CJM)
Editor-in-Chief (CJM)
Managing Editor (CJM/CMB)
Editor-in-Chief (CMB)

**Associate Editors:** 

Florin Diacu Illijas Farah Skip Garibaldi Robert Leon Jerrard Izabella Laba Anthony To-Ming Lau Alexander Litvak Alexander Nabutovsky Vladimir Pestov Gordon Slade Frank Sottile Roland Speicher Vinayak Vatsal McKenzie Wang Michael Ward Jie Xiao Efim Zelmanov

Editor-in-Chief

**CMS Notes** 

**Erhard Neher** 

Robert Dawson (St. Mary's)
Srinivasa Swaminathan (Dalhousie)
Florin Diacu
Jennifer Hyndman
John Grant McLoughlin
Renzo Piccinini
Johan Rudnick

Editor-in-Chief
Contributing Editor – Research
Contributing Editor - Education
Contributing Editor - Education
Contributing Editor - Book Reviews
(CMS)Managing Editor

## **Crux Mathematicorum with Mathematical Mayhem**

Robert Dawson Articles

Amarjit Sodhi
Book Reviews
Bill Sands
Editor at Large
Shawn Godin
Editor-in-Chief
Managing Editor

Lynn Miller Mayhem Assistant Editor

Shawn Godin Mayhem Editor Nicolae Strungaru Olympiad Editor **Problems Editor Edward Barbeau** J. Chris Fisher Problems Editor Chris Grandison Problems Editor **Problems Editor** Anna Kuczynska **Edward Wang** Problems Editor Skoliad Editor Mogens Hansen **Skoliad Editor** Lily Yen

Jeff Hooper

Thank you to the following members who also served in 2012:

Ian Affleck Cosmin Pohoata

Robert Craigen

# A Taste of Mathematics (ATOM)

Alistair Lachlan Editor-in-Chief
Johan Rudnick Managing Editor

Edward Barbeau Malgorzata Dubiel Joseph Khoury Antony Thompson

## **CMS Books in Mathematics Series**

Karl Dilcher Editor-in-Chief
Keith Taylor Editor-in-Chief

George Bluman

## **CMS Treatises in Mathematics**

Henri Darmon (McGill) Editor-in-Chief

Jonathan Borwein

## **ANNEX D**



## CMS OFFICES as of Dec 31, 2012

The CMS office in Ottawa supports every aspect of CMS activity, from membership activities, subscriptions, meetings, events, and the work of the Board and Committees. The Publications group in Winnipeg handles the technical elements of our journal publication. The CMS would like to acknowledge and thank the following individuals for their hard work and dedication to the advancement, discovery, learning and application of mathematics.

## **CMS Executive Office**

Denis Akoulov
Jessica St-James
Denise Charron
Sarah Watson
Alan Kelm
Steve La Rocque
Yvette Roberts
Johan Rudnick

Membership and Publications Assistant
Communications and Special Projects Officer
Manager, Membership and Publications
Manager, Meetings and Events
Manager, Electronic Services
Electronic Services
Manager, Finance and Operations
Executive Director

Thank you to the following staff who also served in 2012: Laura Alyea Gertrud Jeewanjee

#### **CMS Publications Office**

Lee-Ann Baldwin Michael Doob Laura Lamont Craig Platt Administrative Assistant Technical Consultant Technical Assistant Technical Editor



## **2012 INDIVIDUAL DONORS**

**ANNEX E** 

The Canadian Mathematical Society would like to acknowledge and thank the following individuals for their financial support as well as those supporters who made donations anonymously. With the help and encouragement of these individuals the CMS strives to promote the advancement, discovery, learning and application of mathematics.

#### **Benefactors**

## H.E.A. Eddy Campbell Jacques Hurtubise Christiane Rousseau

## **Supporters**

Ronald Bercov Robert Milson
Kenneth Davidson Johan Rudnick
J. Chris Fisher Gord Simons
Thomas Hassan Robert Woodrow
Anthony To-Ming Lau

## **Friends**

János Aczél Robert Adams Igor Babchine Ian Bailey B. Banaschewski Edward Barbeau Margherita Barile Tatyana Barron **David Bates Howard Bell** Elena Braverman David Brydges W.D. Burgess Hernando Burgos Soto L. Lorne Campbell Richard Caron Robin Cockett Matei Coiculescu Bernard Courteau Paolo Custodi Aubert Daigneault **Chandler Davis** Dominick DelCasale **Charles Diminnie** Dragomir Djokovic Roy Dowling Mark Ellingham Douglas Farenick Peter Fillmore

Uri Fixman

Martin Frankland

Alexandra Gall Allan Gibb **Edgar Goodaire** Gena Hahn Bert Hartnell James Henniger John Heuver Laurence Hove Jeannette Janssen Gertrud Jeewanjee Upendra Kamdar Barbara Keyfitz Hiroshi Kinoshita Vaclay Konecny Hans Kummer Kee-Wai Lau Charles Lawes **David Leeming** Martin Légaré Odile Marcotte Jan Minac **Barry Monson** Robert Moody Michele Mosca Lois Murray Monica Nevins Richard Nowakowski Jagdish Pandey Daniel Piché José Maria Gomes Pinheiro Keith Powls

Patrick Ryan David Ryeburn Gert Sabidussi Yvan Saint-Aubin Pakpoom Sakoonchaipondlerd Thomas Salisbury **Bill Sands** Laurence Schweitzer Eddy Smet Cathleen Synge Morawetz Tara Taylor Peter Taylor Walter Tholen **Hugh Thomas Antony Thompson** Elmer Tory Rémi Vaillancourt **Howard Weiner** J. Harley Weston John Whitfield Shelly Wismath R. Grant Woods **Graham Wright** Noriko Yui Ping Zhou Peter Zvengrowski **Anonymous Donor** 

Donald Rideout

Johan Rudnick

Dale Preston Odin Rolfsen

#### ANNEX F



#### **2012 SPONSORS AND PARTNERS**

The CMS would like to acknowledge and thank the following sponsors and partners for their support of and/or partnership with the Society's various activities. Our sponsors and partners recognize the importance of mathematics in Canadian society and help make CMS activities that promote the advancement, discovery, learning and application of mathematics possible.

## Corporate

Harold Crabtree Foundation Nelson Education Ltd. Regina Hotel Association Sun Life Financial Samuel Beatty Fund TD Bank Financial Group

### Government

Gouvernement du Québec
Government of Alberta
Government of Manitoba
Government of Newfoundland and Labrador
Government of Northwest Territories
Government of Nova Scotia
Government of Nunavut

Government of Ontario
Government of Prince-Edward-Island
Government of Yukon
Natural Sciences and Engineering Research Council
(NSERC)
Saskatchewan Learning

## **Publishers**

Nelson Education Pearson Canada Springer W. H. Freeman and Company

## **Societies and Organizations**

Actuarial Foundation of Canada Atlantic Association for Research in the Mathematical Sciences (AARMS) Banff International Research Station (BIRS) Centre de recherches mathématiques (CRM) Fields Institute Pacific Institute for the Mathematical Sciences (PIMS)

# **COMC University Network**

University of British Columbia University of Calgary Carleton University Dalhousie University Université Laval University of Manitoba Memorial University
University of New Brunswick
University of Ottawa
University of Prince Edward Island
University of Saskatchewan
University of Toronto

## **Math Camp Partners**

University of Alberta
Collège de Bois-de-Boulogne
Dalhousie University
University of Manitoba
Memorial University
University of New Brunswick
University of Prince Edward Island

Simon Fraser University Queen's University University of Toronto University of Regina University of Victoria Western University York University