

2004 *Annual Report to Members*

June 4, 2005

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President's Report

H.E.A. Eddy Campbell (Memorial University, St. John's, NL)

2004, a spectacular year for mathematics in Canada

2005 was an excellent year for mathematics in Canada. The national centre for excellence, the Mathematics of Information Technology and Complex Systems (MITACS) was renewed for another 7 year period. MITACS has a wide ranging mandate across the whole community of mathematical sciences to connect us to industry and provide new opportunities for researchers and graduate students. This renewal was a very important event for us. The mathematical landscape in Canada has changed dramatically over the past decade. We now have three world-class research institutes: the centre de reserche mathématiques (CRM) in Montreal; the Fields Institute (FI) in Toronto; and the Pacific Institute for Mathematics (PIMS) in Vancouver. There is also the Banff International Research Station (BIRS) which is supported also by institutes in the US and Mexico, and a virtual networked institute in the Atlantic Association for Research in the Mathematical Sciences (AARMS). The creation of this infrastructure has led to a tremendous increase in the quality and impact of the Canadian mathematical sciences. This in turn has led to a new sense of community, a broader view of our beloved disciplines and new cooperative ventures involving many of our sister organizations inside and outside the country as well as the institutes. It is a very exciting time to be a mathematician in Canada!

Our prizes continue to attract outstanding nominations. The quality of these nominations from all over the country speaks to the real and growing strength of mathematics in Canada. We have every reason to celebrate and to take pride: please refer to the report of the Research Committee. The CMS is a key player in promoting and enhancing Canadian mathematics. Our regular activities continue to flourish as you will see from the reports herein from our committees. Our regular meetings attract large numbers of participants and increasingly are held jointly with our sister organizations, we have a very active publications programme, high school mathematics competitions, Math Camps (there were 15 in 2005 with at least one camp in every province), electronic services for the community, and the Endowment Grants Competition.

The Research Committee reports extensively on our 2004 Summer Meeting at Dalhousie and the 2004 Winter Meeting at McGill. Notably, the Summer meeting was held jointly with our sister organization the Canadian Applied and Industrial Mathematics Society (CAIMS) with the participation of the Canadian Symposium on Fluid Dynamics and the Canadian Society for History and Philosophy of Mathematics. As well, the MITACS meeting was held just prior to ours and attracted a large number of graduate students and others. There were some 448 registered participants at the meeting attending some of the 14 symposia.

It was a treat to return to Montreal where the Canadian Mathematical Congress first met in 1945 with the hope that "the Congress will be the beginning of important mathematical developments in Canada." That has indeed been the case, and our meetings serve to recognize this and to make further contributions. There were 17 symposia including one in the History of Mathematics, one in Education, as well as a Contributed Paper Session with 475 participants.

Canada School Mathematics Forum

The 2005 Canadian Mathematics Education Forum will be held in Toronto, May 6 - 8, 2005. The three co-chairs of the 2005 Forum are Florence Glanfield (Saskatchewan), Bradd Hart (McMaster) and Frédéric Gourdeau (Laval). The Forum will bring together mathematics educators and administrators from universities and schools across the country. The goal, of course, is to improve the teaching of mathematics in our schools. The overall theme of the 2005 forum will be "Why Teach Mathematics?" The format of the forum will consist of plenary or key note sessions and working group sessions. Some of the discussion and working group themes that have been identified so far include: approaches to early numeracy and ageappropriate mathematics education; strategies for increasing the number of highly qualified students in mathematically intense programs in science and engineering; mathematics education for students at risk; effective approaches to the education of all mathematics educators; and mathematics education and the aboriginal community. It is the intent that groups working together in this forum will develop projects, initiatives, and statements that will outline ways in which Canadians may address these issues and concerns

President's Report - Continued

Moreover, many provincial associations of mathematics teachers wish to stay in contact and further develop the links created at the first Forum in 2003. The Advancement of Mathematics Committee has recommended that these Fora be held every three or four years.

Math in Moscow

The Mathematics in Moscow program offered in collaboration with NSERC offers three scholarships of \$10,000 each to support three Canadian students registered in a mathematics or computer science program to attend a semester at the Independent Moscow University. Two students were awarded scholarships in the spring competition. They are **Ashley Evans Blacquière** (UPEI) and **Timothy Peter Kusalik** (Queen's University). The winner of the fall competition is **Simon Belzile** from the Université du Québec à Montréal. He will spend the winter 2005 studying mathematics at the Moscow Independent University. Two more scholarships will be awarded In April 2005. Please refer to

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

ICM 2010

As mentioned in my report last year, we had approached the International Mathematical Union (IMU) and National Research Council (NRC) about a possible bid from Canada to host the International Congress of Mathematicians in Montreal in 2010 (ICM 2010). We are now conducting a feasibility study, particularly regarding the financial requirements, with the NRC and with the Palais des Congrès in Montreal. It is hoped to reach a final decision concerning this initiative by **May 2005.**

Coxeter Commemorative Events

The CMS is a partner the Renaissance Banff Conference in July 31 – August 3, 2005. The Banff Renaissance Conference will be part of the International Bridges Conferences on Mathematical Connections in Art, Music and Science. The Conference is an initiative of Robert Moody and a collaborative effort by PIMS, the Banff Centre, the CMS and the Bridges Conferences. The last day of the event will be a Coxeter Day in commemoration of the life and mathematics arts connections of Donald Coxeter. The proceedings will be published and distributed in the country. We hope that many Canadians will decide to participate and propose to give a lecture or organize a workshop session. You

will find information on the Bridges Conference 2004 in Winfield (Kansas) and in general on the Bridges Conferences at: www.sckans.edu/~bridges. The link to the 2005 Conference is http://www.pims.math.ca/RenaissanceBanff/

A conference in the honour of Coxeter was held at the University of Toronto in May 2004, featuring more than 20 speakers and a public lectures. **Michele Emmer** (Rome), an expert on arts and mathematics spoke on The Visual Mind: Math, Art, Cinema while **Doris Schattschneider** (Moravian College PA), an expert on unusual and surprising tilings, spoke on Coxeter and the Artists: two-way inspiration.

First Canada-France Meeting

This first meeting was a great success. It was held at Toulouse July 12-15, 2004. There was a program of students and postdoctoral fellow travel awards sponsored by the three Institutes (CRM, FI and PIMS), together with the Statistical Society of Canada, CAIMS and the CMS. A number of travel awards of \$500 each were awarded to students and PDFs making poster presentations.

The meeting was held jointly with La Société Mathématique de France (S.M.F.), La Société de Mathématiques Appliquées et Industrielles de France (S.M.A.I.) and La Société Française de Statistique (S.F.d.S). There were 17 symposia offered on a wide variety of topics with many speakers.

Financial difficulties of the CMS

In the fall of 2003, Christiane, Arthur Sherk and I formed a task force on the future of the CMS and its impact on the Executive Office. This resulted in a reorganization of that office. One of the most important motivating factors for the Task Force was the financial situation of the Society. As our activities continue to grow, the cost of these activities has used all of our available resources, and a deficit is forecast for the current budget year. One of the consequences has been that the Executive took steps to solicit proposals from fund-raising firms with a view to a campaign to providing additional endowment funds in support of some of our activities. Such a campaign would require widespread support from our membership – including donations, and much work from the Executive and Board members.

President's Report - Continued

Challenges

The CMS is facing many challenges for the next year: balancing the budget and generating new revenues so that we can maintain our activities, making sure that the newly hired faculty join the CMS and become volunteers for our activities, increasing the visibility of mathematics everywhere in the country and working so that mathematics becomes more popular in our schools. I would ask each of you to consider doing some recruiting in your own institution: the Executive Office can help you by sending you a brochure on the benefits of membership: mpdesk@cms.math.ca.

Thanks

We are extremely grateful to all the volunteers who work throughout the country bringing success to our activities: scientific and local organizers of meetings, members of our committees, organizers of our educational activities, editors of our journals, contributors to our publications. Special thanks go to the members of the staff of the Executive Office: each new activity brings fresh work to the Office (for example, the 2003 Forum and the 2004 Canada-France Meeting in Toulouse). Moreover, due to the unforeseen absence of Monique Bouchard during the preparations for the 2003 Winter Meeting, the remaining staff had to take on additional demands. I also wish to thank the retiring members of the Executive Committee, Board of Directors and committee members. I owe a particular vote of thanks to Graham Wright and Christiane Rousseau who have been a tremendous help and whose support has been invaluable.

Executive Director's Report - A year of change

Graham P. Wright (Ottawa)

Executive Office

The year started with significant changes in our Executive Office in Ottawa. The Ad-hoc Committee, consisting of Eddy Campbell, Christiane Rousseau and Arthur Sherk, completed their review of the work-load on the Executive Office and their recommendations were accepted by the Executive Committee and the CMS Board of Directors.

The most significant change was that the position of Operations Manager was abolished and that a full-time Meeting Coordinator position be created. These changes took place in January 2004 and modifications to the duties for each of the other Executive Office positions were instituted at the same time. Ms. Gertrud Jeewanjee was hired as the new Meetings Coordinator effective March 1, 2004. These significant changes were accomplished with limited impact on the overall operations of the Executive Office and the new structure should provide a good framework for the current and future needs of the Society. I am grateful to all the Executive Office staff for their assistance and support during a difficult period.

The CMS was approached by the Statistical Society of Canada (SSC) to submit a proposal for the CMS Executive Office to provide membership and related services to the SSC. Along with the help of Yvette Roberts (CMS Accountant) and Liliane Sousa (CMS Membership and Publications Agent), a proposal was prepared and it was endorsed by the CMS Finance and Executive Committees. The CMS proposal was accepted by the SSC and, effective December 1, 2004, the Executive Office has been providing these services. I hope that this agreement between the CMS and the SSC will be long-term and will provide benefits to both societies.

Publications

The Editors-in-chief of the *Canadian Journal of Mathematics* (Henri Darmon and Niky Kamran), and the *Canadian Mathematical Bulletin* (James Lewis, Arturo Pianzola, and Noriko Yui), as well as Craig Platt (Technical Editor), Swami Swaminathan (Associate Technical Editor), Michael Doob (Technical Consultant) and the other staff of the CMS Publications Office, all helped to maintain the excellent scientific reputation and on-time production of our printed and web-based research journals.

Thanks also go to the editors of CRUX with MAYHEM, particularly the Editor-in-Chief, Jim Totten (University College of the Cariboo) and to the editors of the *CMS Notes*, particularly Robert Dawson (St. Mary's) and Swami Swaminathan (Dalhousie), for their work in ensuring these high quality periodicals continue to appear on schedule.

With the October 2004 issue, changes were made to the online delivery of the CMS Notes. These changes have greatly simplified the work involved to provide the on-line versions of the *CMS Notes*. I wish to thank Nathalie Blanchard (Assistant to the Executive Director), Alan Kelm (Web Services Manager) and Craig Platt for their assistance with this initiative.

The CMS Book Series, published in cooperation with Springer-Verlag continues to be a very successful series. The term of the original Editors-in-Chief, Jonathan Borwein (Dalhousie) and Peter Borwein (SFU) ended in December 2004. They are to be congratulated on the success and current status of this series. Jonathan Borwein agreed to remain as one of the Editors-in-Chief and Karl Dilcher (Dalhousie) was nominated as the second Editor-in-Chief. Their appointments are for five years, ending December 31, 2009, have been confirmed by the CMS Board of Directors.

As the Society needs to generate more revenues from our publications, the position of Associate Publisher for Books and New Media has been created. Jonathan Borwein was appointed to this new position. A number of initiatives are being explored and it is hoped that new publishing agreements will be signed in 2005.

In 2004, the Publications Office and Executive Office staff continued to provided production and subscription assistance for the Royal Society publication, *Comptes rendus*. The situation for 2005 is still being reviewed and it is hoped a decision will be made in the near future.

Meetings

The 2004 Summer Meeting, hosted by Dalhousie University and the 2004 Winter Meeting, hosted by McGill University, were extremely successful from many standpoints. They each featured a large number of plenary, prize and special session speakers and both attracted a large number of delegates (448).

Executive Director's Report - Continued

for the Summer Meeting and 478 for the Winter Meeting). The Canada-France Meeting in Toulouse in June 2004 was also very successful with over 430 delegates.

It is very encouraging that the size of our meetings continues to increase. Large meetings put additional demands not only the Executive Office Staff but also on all those who volunteer with these meetings - the meeting directors, the local arrangement chairs and the session organizers. The Society is indebted to all of those who contributed to the success of the 2004 Toulouse Meeting and the 2004 Summer and Winter meetings.

To reduce some of the demands on our colleagues at the host university, the CMS Executive Office continues to explore ways to assume more of the administrative load.

Financial Limitations

The Finance and Executive Committees are proposing to create terms of reference whereby the Society would establish a group of "Endowed Funds". The terms of reference will also include a statement on the "principles for the preservation of capital". An article regarding this proposal was included in the December 2004 issue of the CMS Notes and made available through the CMS web-site. Members have been invited to comment on the

proposal and it is hoped to provide a final document that will be present to the Board in June 2005 for approval.

The significant increase in the value of the Canadian dollar has resulted in a large decrease in foreign exchange revenues. Although steps are being taken to address this situation, a large deficit is anticipated for 2004 and it was not possible to produce a balanced budget for 2005. Some of the steps being taken include: increased publishing activities, a promotional campaign to increase membership and subscriptions, contract work, and a significant fund raising campaign.

The expenses of the Society are very well controlled but unless ways can be found to generate significant new revenues, it may be necessary to eliminate some existing programs and, furthermore, the CMS will not be able to undertake new initiatives or to respond positively to other groups who look to the CMS for support and assistance.

Treasurer's Report

Arthur Sherk

After several difficult years for all investors, our Restricted Investment Fund (Endowment, Mathematical Olympiads, and Designated Activities) show modest increases. The Finance Committee continues to monitor our investment portfolio, and has decided that the present strategy should continue.

We are very concerned, however, about the alarming deficit of \$165,006 in our Operations Fund. About half of this amount was anticipated when the 2004 Budget was set. It was attributable to a loss in periodicals subscription revenue (due to bankruptcy of a subscription agent) as well as a loss of foreign exchange profit (due to the increased value of the Canadian dollar). Now we find that the loss in foreign exchange is even greater than anticipated. Also, there was a large employee severance expense which was not anticipated at the time the budget was adopted.

The Board of Directors has approved that the unrestricted fund deficit will be covered by a transfer of the Endowment Fund (which in many former years has been the recipient of budget surpluses). But the revenue from foreign exchange is unlikely to soon regain its former amounts. Thus we need to find new sources of revenue or significantly reduce our programs.

To that end, the Finance Committee has appointed an Ad-Hoc Committee, chaired by the Treasurer, to seek solutions to the budget deficit problem. The Committee is to report in July 2005, so that its findings can be applied to the 2006 Budget.

Balance Sheet as at December 31, 2004

ASSETS	Operations Fund \$	Designated Activities Fund \$	Endowment Fund \$	Mathematical Olympiad Fund \$	Borwein Distinguished Career Fund \$	2004 \$ Total	2003 \$ Total
Current Assets							
Cash	85,749					85,749	106,821
Temporary Investments	15,693					15,693	2,508
Accounts receivable and accrued interest	414,704		18,500			433,204	358,152
Budget advances	10,228					10,228	20,910
Prepaid expenses	59,116					59,116	69,987
Interfund receivable (payable)	58,568	772	(123,910)	14,570	50,000		
	644,058	772	(105,410)	14,570	50,000	603,990	558,378
Investments		3,276	1,464,188	170,331		1,637,795	1,780,250
Capital assets	22,747					22,747	26,092
	666,805	4,048	1,358,778	184,901	50,000	2,264,532	2,364,720
Liabilities							
Current liabilities							
Accounts receivable and accrued interest	164,667					164,667	231,302
Deferred contributions	479,391					479,391	378,518
	644,058					644,058	609,820
Fund Balances							
Investment in capital assets	22,747					22,747	26,092
Restricted		4,048	1,358,778	184,901	50,000	1,597,727	1,728,808
	22,747	4,048	1,358,778	184,901	50,000	1,620,474	1,754,900
	666,805	4,048	1,358,778	184,901	50,000	2,264,532	2,364,720

Statement of Revenue and expenditures year ended December 31, 2004

	GENERAL DIVISION		PUBLISHING DIVISION RESE		RESEARCH	RCH DIVISION EDUCATION		FION DIVISION		TAL
	2004 \$	2003 \$	2004 \$	2003 \$	2004 \$	2003 \$	2004 \$	2003 \$	2004 \$	2003 \$
Revenue										
Grants	49,333	30,000	2,500	2,500	41,000	27,000	61,800	126,769	154,633	186,269
Donations	6,955	3,806	1,123	1,354	2,202	1,448	61,607	60,973	71,887	67,581
Membership fees	102,672	100,394							102,672	100,394
Registration fees and other sales	7	20	7		164,228	141,290	68,127	90,160	232,369	231,470
Subscriptions and publications	40	40	783,090	812,374		120			783,130	812,534
Advertising and promotional sales	12,216	15,525	18,706	28,228	4,743	4,660	3	275	35,668	48,688
Sundry	(1,023)	(803)	(1,023)	(1,264)	(924)	(1,248)	(1,023)	(1,245)	(3,993)	(4,560)
	170,200	148,982	804,403	843,192	211,249	173,270	190,514	276,932	1,376,366	1,442,376
Expenditures										
National projects	46,184	32,554					142,555	149,392	188,739	181,946
Speakers and prizes	109	335	208	119	65,492	47,554	23,613	30,269	89,422	78,277
Production			126,774	116,153	4,731	2,987		13	131,505	119,153
Promotional material	995	1,373	995	1,551	6,662	4,642	6,643	8,800	15,295	16,366
Salaries and benefits	122,415	101,314	309,269	289,881	126,416	107,613	122,414	101,314	680,514	600,122
Boards and Com- mittees	29,351	34,197	69,734	69,442	91	113	3,395	3,501	102,571	107,253
Legal and audit	3,515	2,193	3,513	2,193	3,513	2,193	3,513	2,193	14,054	8,772
General administra- tion	40,984	38,213	81,535	64,274	145,621	107,754	39,375	73,660	307,515	283,901
Amortization of capital assets	2,940	3,801	2,939	3,801	2,939	3,801	2,939	3,801	11,757	15,204
	246,493	213,980	594,967	547,414	355,465	276,657	344,447	372,943	1,541,372	1,410,994
Excess (deficiency) of revenue over expenditures	(76,293)	(64,998)	209,436	295,778	(144,216)	(103,387)	(153,933)	(96,011)	(165,006)	31,382

Budgets - Operations Fund Summary

	GRAND DIVISION SUMMARY	2003 Year-end	Budget 2004	Estimates year end	BUDGET Proposal
GENERAL					
Total Revenue		148,981	164,705	165,234	203,296
Total Expenditure		213,981	242,171	250,773	266,973
	NET REVENUE/EXPENDITURE	(65,000)	(77,466)	(85,539)	(63,677)
EDUCATION					
Total Revenue		276,932	209,991	202,703	317,318
Total Expenditure		372,944	359,661	339,966	451,448
	NET REVENUE/EXPENDITURE	(96,012)	(149,670)	(137,263)	(134,130)
RESEARCH Total Revenue		173,270	244,522	231,529	256,898
Total Expenditure		276,656	358,144	358,650	369,528
Total Exponential	NET REVENUE/EXPENDITURE	(103,386)	(113,622)	(127,121)	(112,630)
PUBLISHING					
Total Revenue		843,192	917,966	837,895	841,711
Total Expenditure		547,415	604,793	586,988	611,702
	NET REVENUE/EXPENDITURE	295,778	313,173	250,907	230,009
OPERATIONS FUI	ND				
Total Revenue		1,442,375	1,537,184	1,437,360	1,619,222
Total Expenditure		1,410,994	1,564,768	1,536,376	1,699,650
	NET REVENUE/EXPENDITURE	31,380	(27,585)	(99,017)	(80,429)

$Budgets \hbox{ --} \textit{General and Education Divisions}$

	GENERAL SUMMARY	2003 Year-end	Budget 2004	Estimates year end	BUDGET Proposal
REVENUE					
Administration		18,370	14,675	13,603	13,568
Members		100,394	113,530	105,913	121,053
Projects		30,217	36,500	37,833	31,000
SSC Contract		0	0	7,885	37,675
	TOTAL REVENUE	148,981	164,705	165,234	203,296
EXPENDITURE					
Administration		181,092	188,986	191,510	185,478
Members		0	1,635	1,608	1,620
Projects		32,889	51,550	51,450	47,550
SSC Contract		0	0	6,205	32,325
	TOTAL EXPENDITURE	213,981	242,171	250,773	266,973
	NET REVENUE/EXPENDITURE	(65,000)	(77,466)	(85,539)	(63,677)

EDUCATION SUMMARY	2003 Year-end	Budget 2004	Estimates year end	BUDGET Proposal
REVENUE				
Administration	6,815	11,425	7,803	20,018
Competitions	110,860	104,100	106,250	103,250
Forum	82,024	0	0	113,000
Math Camps	61,900	59,800	70,250	72,650
Projects	15,333	34,666	18,400	8,400
TOTAL REVENUE	276,932	209,991	202,703	317,318
EXPENDITURE				
Administration	148,896	157,461	159,356	153,653
Competitions	111,450	123,750	115,482	113,995
Forum	50,352	0	0	100,250
Math Camps	44,294	51,150	46,028	48,200
Projects	17,951	27,300	19,100	35,350
TOTAL EXPENDITURE	372,944	359,661	339,966	451,448
NET REVENUE/EXPENDITURE	(96,012)	(149,670)	(137,263)	(134,130)

Budgets - Research and Publications Divisions

	RESEARCH SUMMARY	2003 Year-end	Budget 2004	Estimates year end	BUDGET Proposal
REVENUE					
Administration		(1,390)	22,425	20,853	1,568
Meetings		174,660	222,097	210,677	255,330
Projects		0	0	0	0
	TOTAL REVENUE	173,270	244,522	231,529	256,898
EXPENDITURE					
Administration		145,457	150,251	154,194	146,728
Meetings		129,360	206,493	202,956	221,300
Projects		1,838	1,400	1,500	1,500
	TOTAL EXPENDITURE	276,656	358,144	358,650	369,528
	NET REVENUE/EXPENDITURE	(103,386)	(113,622)	(127,121)	(112,630)

F	PUBLISHING SUMMARY	2003 Year-end	Budget 2004	Estimates year end	BUDGET Proposal
REVENUE					
Administration		12,510	12,725	4,903	12,618
Journal		537,841	569,349	508,592	500,031
Bulletin		172,831	190,349	177,667	176,304
Notes		13,281	17,194	18,599	23,035
Electronic Services		55,323	62,951	64,459	69,881
Crux		45,000	48,524	47,526	43,193
Other Publications		6,407	16,875	16,150	16,650
Projects		0	0	0	0
	TOTAL REVENUE	843,192	917,966	837,895	841,711
EXPENDITURE					
Administration		262,266	281,601	276,185	290,228
Journal		74,301	76,495	78,002	78,140
Bulletin		42,752	44,825	46,294	46,157
Notes		28,278	36,200	36,200	37,800
Electronic Services		102,045	114,723	108,100	115,958
Crux		36,655	40,550	38,857	39,970
Other Publications		1,000	10,200	3,150	3,250
Projects		119	200	200	200
	TOTAL EXPENDITURE	547,415	604,793	586,988	611,702
	NET REVENUE/EXPENDITURE	295,778	313,173	250,907	230,009

Advancement of Mathematics Committee Report

Chair: H.E.A. (Eddy) Campbell (Memorial)

Richard J. Caron - Windsor Jean-Marie De Koninck - Laval Edgar Goodaire - Memorial Kathryn E. Hare - Waterloo Christiane Rousseau - Montréal Arthur Sherk Robert Woodrow - Calgary Graham P. Wright - Ottawa

The Advancement of Mathematics Committee (AMC) was created in July 2001, and includes the Fundraising Committee as a sub-committee. It has been a very active year for this committee.

ICM 2010

In 2004, we undertook a feasibility study to see if Canada should bid to host the International Congress of Mathematicians in Montreal in 2010, in collaboration with National Research Council and the Palais des Congrès in Montreal. We concluded there were grounds on which to proceed. Christiane Rousseau took responsibility for the effort and started discussions with the centre de reserche mathématiques (CRM), the Fields Institute (FI), the Pacific Institute (PIms), and the national centre for excellence for the mathematics of information technology and complex systems (MITACS). Each of the organizations agreed to provide funding and letters of support were solicited from various politicians - the Mayor of Montreal, the Premier of Ouebec, and the Prime Minister among them – as well as from our sister organizations in the mathematical sciences. The bid was issued in the fall. The IMU Executive will visit Montreal in April 2005 as part of their evaluation of the bid.

Fund Raising Campaign

The Committee and Executive issued a Request for Proposals to several professional fundraising companies, and four bids were received. They are under adjudication as of this writing. On behalf of the Society, based on our planning documents and after wide consultation with the community, we identified key priorities for the Society and focused on a number of projects with fund-raising potential. These will be further refined with our partner.

The Imperial Oil Foundation continues to be the Title Sponsor of the National and Regional Math Camps. Sun Life Financial also continues as the Major Sponsor for the Canadian Mathematical Olympiad. Approaches have been made to provincial ministries of education to support our wide array of education activities. The NSERC PromoScience grant has been renewed for 3 years in support of our Math Camps program and the CMS has been invited to put another application in support of the Canadian Math Trail and the Mathematics Career Posters

in September 2004. Significant fundraising efforts were directed to the 2003 Forum which generated significant revenues. Part of the surplus from the first Forum will be used to support the 2005 Forum.

New Prize

With the aid of a generous donation from the Borwein family, the CMS created a new prize to honour a mathematician who has made exceptional, broad and continued contributions to Canadian mathematics. The prize is the David Borwein Distinguished Career Award. The recipients will be chosen by the AMC, one or two prizes every even year at the Summer Meeting of the Society. The award will be a sculpture designed by the renowned Helaman Ferguson.

New positions

Jonathan Borwein was appointed Associate Publisher for Books and New Media.

Membership Drive

Letters, signed by Eddy Campbell and Christiane Rousseau, highlighting the advantages of being a CMS member have been sent to all Board members. It is hoped that each director can convince three of their colleagues to become members. Another initiative being considered is to have each vice-president visit departments to promote the CMS. A source of potential new members is researchers in theoretical computer science as they have no home society in Canada. Plenary lectures and sessions with such a focus could be featured at our semi-annual meetings.

Forum 2005

The Forum will be held at the Fields Institute May 6-8 2005. Attendance is by invitation only. The Forum provides an occasion for various professional societies, provincial education associations and specialists in math education to exchange ideas and build collaborations with the intent of improving mathematics education in Canada.

http://www.cms.math.ca/Events/CMEF2005/

Advancement of Mathematics Committee Report - continued

Considering the importance of maintaining links with provincial associations of mathematics teachers, developed in previous forums, another forum is proposed in the West for 2008 or 2009. We are grateful for the support of the Fields Institute as well as the hard work of the co-chairs: Florence Glanfield (University of Saskatchewan), Bradd Hart (McMaster University) and Frédéric Gourdeau (Université Laval).

Many provincial associations of mathematics teachers wish to stay in closer contact and to further develop the links established through the For a, and the Advancement of Mathematics Committee wishes to support this. We envision that similar Fora will take place every three or four years, in order to maintain the momentum. We see PIMS as a possible host for a future forum. However, the impact upon the Executive Office of on-going Fora needs to be considered.

Poster on Careers in Mathematics

Intensive work by Judith McDonald and Harley Weston resulted in the "Math with a Human Face" poster. It is a really impressive document, a must see, at

http://www.careers.math.ca

Banff Renaissance Conference

We will also be a partner in the Banff Renaissance Conference meeting in July 2005, part of the International Bridges Conferences on Mathematical Connections in Art, Music and Science. This is a collaborative effort of PIMS, the Banff Centre, the CMS and the Bridges Conferences. The last day of the

conference will be a special "Coxeter Day" to commemorate the life and mathematics and arts connections of Donald Coxeter. The proceedings of the conference will be published.

www.pims.math.ca/RenaissanceBanff/

Toulouse 2004

Sponsored by the three research institutes, the CMS, the Statistical Society of Canada, and the Canadian Applied and Industrial Mathematics Society, we held a meeting with the Societe Mathematique de France in July. There was generous support for student and postdoctoral travel and the meeting was a success.

Second Canada France Meeting 2008

We have begun the preliminary planning for a second Canada-France meeting in 2008 as part of an enlarged CMS Summer Meeting. On the Canadian side MITACS, CAIMS, CORS, CSHPM and the Institutes will take part in the event. The statistics part of the event will take place in Ottawa and involve SSC and SFdS. The meeting itself will take place in Montréal end of May, beginning of June. Increasingly, the CMS seeks to hold joint meetings with our partners in the mathematical sciences.

Education Committee Report

Chair: Richard Caron (Windsor)

Edward J. Barbeau - Toronto Jonathan M. Borwein - Dalhousie Malgorzata M Dubiel - SFU (CMESG Representative)

Kathryn E. Hare - Waterloo

Bradd T. Hart - McMaster Wieslaw Z. Krawcewicz - Alberta Neal Madras - York Daryl W. Tingley - UNB-Fredericton J. Harley Weston - Regina

The Committee met at both the 2004 Summer and Winter Meetings. The Summer Meeting was dominated by discussions related to the 2003 Mathematical Education Forum. At the Winter Meeting the Committee was updated on activities related to the planning of the follow-up Forum to be held in 2005. In addition, the meetings were occupied with reports on activities taking place throughout the year – in summary:

- The 2004 Adrien Pouliot Award was given to Professeur Jean-Marie de Koninck.
- The Chair acted as one of three referees for the second CMS Teaching Excellence Award. The winner is Dr. Philip Loewen and he will receive the award at the Summer 2005 Meeting.
- The Committee awarded grants to all 6 applicants for support of provincial competitions. The total awarded was \$3,500. The applicants were from P.E.I., Newfoundland, Québec, Ontario, Manitoba, and Alberta. Over 3000 students participate in the various contests with close to 50% being female.
- The Education sessions at the 2004 Summer Meeting in Halifax were organized by Richard Hoshino and John Grant McLoughlin. There was a pre-conference workshop on June 12, and a regular session with four speakers and a panel discussion which took place on June 14. In addition, the 2004 Teaching Excellence Award winner, Leo Jonker (Queen's) presented a luncheon address. The Education Sessions at the Winter Meeting in Montreal were organized by Leo Jonker. There were 10 talks over two days and the theme was "Mathematics for Future Teachers". A luncheon address was given by Jean-Marie de Koninck (Laval), the 2004 Adrien-Pouliot winner.
- The Chief Judge for the 2004 Canada Wide Science Fair in St. John's, Newfoundland was Don Bass (MUN) and the members of the judging team were Ivan Booth, Guy Quirion, and Colin Bartholomew.

- Canadian Mathematical Society Senior Award of \$750 for their project, "Homeruns: Say it ain't so!"
- Daniel Bezdek of Calgary won the Junior Award of \$250.00 for his project, "Durer's Unsolved Geometry Problem".
- Andrey Prjibelski, also of Toronto, won the Intermediate Award of \$500 for, "Investigation of Ordering Process".
- The Education Committee Chair is one of the referees for the Math in Moscow competition. The winner selected for the 2005 Winter semester was Simon Belzile (UQAM).
- In the 2003 Annual Report, we expressed optimism that we would have changes to suggest for education materials on the CMS web site. Harley Weston brought forward suggestions at the 2004 Winter Meeting. There was considerable discussion on the website and ideas for future changes, such as links to the websites for the Education Fora, Ed Barbeau's education column in *CMS Notes*, and material on math education courses. We also hoped for the creation of a national mathematics educators group or association, and it seems that the activity surrounding the 2005 Forum is helping this cause. The Education Committee congratulates the organizers for their efforts on this front. In the coming year, we plan to continue the practice of arranging themes for the education sessions to follow up on themes brought forward at the Education Fora.

This is my last report as chair of the committee as it will now come under the leadership of Harley Weston.

- Jessica Yu and Jimmy Xu of Toronto won the

Electronic Services Committee Report

Chair: David L. Rodgers (Michigan)

Jacques Carette - McMaster

Tomasz Kaczynski - Sherbrooke Jérémie Rostand - Laval Samuel S.P. Shen - Alberta David L. Wehlau - Royal Military College

Eric Woolgar - Alberta

The main accomplishments of the *Electronic Services Committee* for 2004 were:

Publishing Office:

- *MathSciNet* links to *CMS on-line journals* (Journal, Bulletin) went into production in May 2004.
- Revised format for on-line CMS Notes, limited to just PDF and Postscript formats, went into production with the October 2004 issue. This has eliminated significantly the manual labour previously required for each issue.
- Pre-publication pages for the Bulletin and Journal are back on-line.
- Significant progress was made toward dynamic generation of Journal and Bulletin pages.

Web Services Office:

- Planned and started to launch service offerings for Statistical Society of Canada, a new fee-for-service revenue stream that will leverage CMS information technology infrastructure.
- Implemented content management system environment to manage meetings information more efficiently and with an improved user interface.
- Developed significant system administration and website enhancements (e.g., digital certificate, secure transmissions, secure mail submissions, data import/export).
- Continues to make significant progress on daily issues, web content, infrastructure, and projects.
- Continues to aggressively monitor and implement better

spam solutions.

- Continues to be managed by the resource allocation scheme introduced last year, with some rebalancing and adjustments dictated by events and experience.
- Continues developing an optimal staffing model that properly recognizes mix of work and resource constraints.

Executive Office:

- Developed a model for producing proceedings for ICM 2010.
- Unanimously passed motion to offer additional *electronic* (only) subscriptions to CMS journals at 60% (40% discount) to remote sites (i.e., different geographical location) of existing institutional subscribers, and the policy change was recommended to the Executive Committee.
- Redesign of the CMS web site is underway.

There was continued discussion on long-term strategies for *e-Commerce* and *Digitization* and agreement to make them central themes for 2005 *Electronic Services Committee* meetings.

The Committee thanked Tomasz Kaczynski and Eric Woolgar for their completed terms of service to the *Electronic Services Committee* and welcomed George Peschke as a new member.

Endowment Grants Committee Report

Chair: Thomas J. Ransford (Laval) - to June 2004 and Karl Dilcher (Dalhousie) - from July 2004

Imin Chen - SFU

Kathryn E. Hare - Waterloo

Bernard R. Hodgson - Laval David A. Pike - Memorial

The main task of the Endowment Grants Committee is to adjudicate proposals for projects that are requesting financial support from the CMS Endowment Grants Competition. Projects which are funded must contribute to the goals of the CMS and to the broader good of the mathematical community.

The committee was allocated \$25,000 for the 2004 competition. Ten applications were received. Five of these were funded and the total allocated amount was awarded. All applicants have been notified by the CMS Executive Office in Ottawa.

The successful applications were as follows:

- a French-language interactive website, based in Moncton, with mathematical problems at varying levels for highschool students;
- a mathematics competition in Saskatchewan for students in grades 8-10;
- a contest for Ontario high-school students, to promote the investigation and presentation of mathematics using computers;
- based on a successful annual Math Fair in Alberta, to promote the concept across Canada and hold demonstration fairs in other provinces; and
- · providing travel grants to female graduate students to attend

a workshop on Connecting Women in Mathematics Across Canada, at the BIRS in July, 2005.

More details on the successful applications can be found on the CMS website: www.cms.math.ca/Grants/EGC/

Reports on projects funded in the past can also be found at this site.

Although the stock market has somewhat recovered, the overall financial situation of the CMS will require a reduced competition for 2005.

It was decided at the meeting of the CMS Board of Directors in December, 2004, that a minimum amount of \$10,000 be allocated from the Endowment Fund for the 2005 Endowment Grants Competition, with the final amount to be set at a later meeting of the Executive.

Finance Committee Report

Chair: Akbar Rhemtulla (Alberta)

Tim Appelt - Structured Analytics David Bates - ManuLife Financial Murray Bremner - Saskatchewan Eddy Campbell - Memorial James Mingo - Queen's Christiane Rousseau - Montreal Arthur Sherk Graham Wright - Ottawa

The Finance Committee advises the Board of Directors of CMS on general financial policies and oversees, in accordance with the policies determined by the Board, the financial activities of the Society including the annual budget, the Restricted Investment Funds, the Endowment Fund, the Mathematical Olympiad Fund and Designated Activities Fund. The Committee includes among its members the Treasurer, the Executive Director, the President and the Past President or the President Elect of CMS. Dr. James Mingo joined the Committee as a new member this year. The committee meets twice a year, in April and October, to discuss the budget and make recommendations on financial matters.

As of November 2004, the total amount in the CMS Restricted Investments Funds was just over \$1,650,000 Canadian. These are invested in various indexed funds managed by Toronto Dominion Quantitative Capital. The mix of the fund weightings is re-considered from time to time. The present allocations are approximately 50% in global equity funds, 10% in Canadian

Equity funds and 40% in Canadian Bonds, a quarter of which is in real return bonds.

The Society is in the process of establishing a true Endowment Fund using a significant portion of the money presently in the Restricted Investment Fund. It is anticipated that this will facilitate the Society's fund raising activities.

Due to the drop in the US dollar (most of the revenue from books and journals are in US dollars), a drop in journal subscription numbers and the low interest rate, there is less money available for our activities and it was necessary to accept an Operations Fund deficit. In addition, due to the annual income from the Restricted Investment Fund being reduced, the amount allocated for the Endowment Grants Competition was reduced.

International Affairs Committee Report

Chair: Jonathan M. Borwein (Dalhousie)

Yuri Bahturin - Memorial Malgorzata M Dubiel - SFU (CMESG) Frédéric Gourdeau - Laval Niky Kamran - McGill Eric Marchand - UNB-Fredericton (SSC)

Edwin A. Perkins - UBC

Samuel S.P. Shen - Alberta (CAIMS) Cameron L. Stewart - Waterloo

The International Affairs Committee is in the process of reorganizing itself so as to be better able to discharge its dual roles as the international arm of the CMS and as the Canadian National Commission for the International Mathematical Union and ICSU through the National Research Council, the Canadian adhering organization.

Present activities for the Committee are preparing for the Madrid International Congress in 2006 and the Canadian bids for the International Congress in Montreal in 2010 and the International Congress for Industrial and Applied Mathematics in Vancouver in 2011.

Mathematical Competitions Committee Report

Chair: Peter Cass (UWO)

Edward J. Barbeau - Toronto George W. Bluman - UBC Yin Chen - Lakehead Peter Crippin - Waterloo Robert J.M. Dawson - Saint Mary's Matthieu Dufour - UQAM Bill Sands - Calgary Bruce L.R. Shawyer - Memorial Jon H. Thompson - UNB-Fredericton Daryl W. Tingley - UNB-Fredericton Terry I. Visentin - Winnipeg Graham P. Wright - Ottawa

Introduction

The Mathematical Competitions Committee (MCC) is responsible for overseeing activities associated with the Society's involvement in mathematics contests. Two contests, the Canadian Open Mathematics Challenge (COMC) and the Canadian Mathematical Olympiad (CMO) are sponsored and run by the Society. The MCC is also responsible for Canada's participation in the International Mathematical Olympiad (IMO). Other activities of the MCC include the Mathematical Olympiads' Correspondence Programme.

Much of the work of the MCC is done by its three subcommittees (the Canadian Open Mathematics Challenge Committee, the Canadian Mathematical Olympiad Committee, and the International Mathematical Olympiad Committee) and the Correspondence Coordinator. Further information, including press releases, on most of the topics in this report can be found through the CMS Competitions web page www.cms.math.ca/Competitions/ and at www.cms.math.ca/MediaReleases/.

The Canadian Mathematical Olympiad

The 36th Canadian Mathematical Olympiad (CMO) was written on March 31, 2004. A total of 79 students from 51 schools in nine Canadian provinces were invited to write the 2004 CMO; one student elected not to participate. The number of contestants from each province was as follows: BC (12), AB (9), SK (1), MB (3), ON (45), QC (4), NB (1), NS (2), NF (1).

The **top winners** in the 35th Canadian Mathematical Olympiad were:

FIRST PRIZE and the Sun Life Financial Cup went to Yufei Zhao, Don Mills Collegiate Institute, Toronto, Ontario. SECOND PRIZE went to Jacob Tsimerman, University of Toronto Schools, Toronto, Ontario. THIRD PRIZE went to Dong Uk (David) Rhee McNally High School Edmonton, Alberta. HONORABLE MENTIONS were awarded to: Boris Braverman Simon Fraser Junior High, Calgary, Alberta; Dennis Chuang Strathcona-Tweedsmuir School, Okotoks, Alberta; Gabriel Gauthier-Shalom Marianopolis College, Montreal, Quebec; Oleg Ivrii, Don Mills Collegiate

Institute, Don Mills, Ontario; **János Kramár** University of Toronto Schools, Toronto, Ontario; **Andrew Mao** A. B. Lucas Secondary School, London, Ontario; **Richard Peng** Vaughan Road Academy, Toronto, Ontario; **Peng Shi** Sir John A. MacDonald Collegiate Institute, Agincourt, Ontario.

A detailed report on the 2004 CMO, including the contest paper, solutions to the problems and the graders' reports is available at:

www.cms.math.ca/Competitions/CM0/

The Asian Pacific Mathematics Olympiad

In March 2004 the 16th Asian Pacific Mathematics Olympiad (APMO) was written. The top Canadian student was **Jacob Tsimerman** who won a gold medal, **János Kramár** was second and won a silver medal, **Peng Shi, Michael Lipnowski, David Rhee, John Sun,** and **Yufei Zhao** all won bronze medals, and **Oleg Ivrii, Yin Zhao** and **Allen Zhang** won Honorable Mention. In total, 39 Canadian students participated.

In 2005 the APMO will be written on Monday, March 14, afternoon and Tuesday, March 15, morning. Korea is running the APMO in 2005 and for the next 2 years.

Further details regarding the 2004 APMO are available at:

www.cms.math.ca/Competions/APMO/

The International Mathematical Olympiad

The 2004 International Mathematical Olympiad was very successful for Canada. The following is quoted from the press release of July 16, 2004.

"Canadian obtains a prefect score and wins a gold medal at the 2004 International Mathematical Olympiad in Athens, Greece."

Approximately 500 students competed at the 45th International Mathematical Olympiad (IMO). Only 45 were awarded Gold Medals of which an exceptional group of four students achieved a perfect score (42 out of 42). "This year a Canadian student, **Jacob Tsimerman**, achieved this rare honor and can be considered world champion", said Dr. Christopher Small, Canadian Team Leader.

Mathematical Competitions Committee Report - continued

Competing against students from 84 other countries, Canadian high school students have done extremely well, winning one Gold Medal, three Bronze Medals and two Honorable Mentions at the 45th International Mathematical Olympiad (IMO), Athens, Greece from July 4-18, 2004.

The six students who competed for Canada were: **Oleg Ivrii**, Don Mills Collegiate Institute, Toronto (Ontario); **János Kramár**, University of Toronto Schools, Toronto (Ontario); **Dong Uk (David) Rhee**, McNally High School, Edmonton (Alberta); **Peng Shi**, Sir John A. MacDonald Collegiate Institute, Toronto (Ontario); **Jacob Tsimerman**, University of Toronto Schools, Toronto (Ontario); and **Yufei Zhao**, Don Mills Collegiate Institute, Toronto (Ontario).

The team was accompanied by the Team Leader, Dr. Christopher Small (University of Waterloo), the Deputy Team Leader, Dr. Edward Wang (Wilfrid Laurier University), and the Observer, Professor Felix Recio (University of Toronto).

Further details are available at:

www.cms.math.ca/MediaReleases/2004/imores.html

IMO Training Seminars

Two training seminars are held each year to prepare students for the annual IMO. The Winter Training Seminar was held in January at York University and begun the training for the IMO and to enabled the team leaders to meet those students who had a good chance of making the IMO team. The Summer IMO Training Seminar was held in June at UQAM and provided the intensive training for the members of the 2004 IMO team.

Mathematical Olympiads' Correspondence Programme

The Mathematical Olympiads' Correspondence Programme (MOCP) is a problems based correspondence programme. It is intended for Canadian or permanent resident high school students with exceptional mathematical ability who wish to pursue mathematical problem solving at a high level or who have ambitions to compete in Mathematical Olympiads. Dr. Edward Barbeau has been Coordinator of this programme for many years.

Further details are available at www.cms.math.ca/Competions/MOCP/

The National Math Camp is designed primarily for younger Canadian students with at least two years remaining in high school and with the potential to compete at the mathematical Olympiad level. Participation in the National Camp is by invitation only. In 2004, students from grades 8 to 10 were invited. The initial selection was made from the results in the Canadian Open Mathematics Challenge and the remaining students were selected on their results in the Galois Contest, a competition organized by the Centre for Education in Mathematics and Computing. Other contest information, and recommendations from Regional Math Camp directors were also considered. Normally, at most two students from a particular school are invited. The National Math Camp was held at The University of Western Ontario from June 5-12, 2004. The National Camps have been organized and run by Tom Griffiths, Marlene Griffiths, and Richard Hoshino for the past several years. The CMS is indebted to them for all their help with the past National Camps.

The Canadian Open Mathematics Challenge (COMC)

The COMC is a contest written every year at the end of November. The Open provides mathematical enrichment for a large number of students and serves as a qualifying paper for the Canadian Mathematical Olympiad (CMO). The results are also used in the selection of students for the Winter Training Seminar and for the National Math Camp held in the summer.

Further details can be obtained at: www.cms.math.ca/Competitions/COMC/

It is apparent that the Mathematical Competitions Committee and particularly its subcommittees are very active. I would like to thank all members for the enthusiasm and hard work in making everything run very smoothly. No small measure of thanks is also due to the staff at the CMS Executive Office and to the Executive Director, Graham Wright, for their dedication.

Nominating Committee Report

Chair: Line Baribeau (Laval)

H.E.A. Eddy Campbell - Memorial Jacques C. Hurtubise - McGill Lisa C. Jeffrey - Toronto Claude Laflamme - Calgary Christiane Rousseau - Montréal Keith F Taylor - Dalhousie

One of the main tasks for the Nominating Committee in 2004 was to find candidates for the President and Vice-Presidents for the 2005 election. The committee also found new chairs and members for the

The Committee tried hard to maintain regional balance for the various committees. As of December 2004, there were still a few committee vacancies that required to be filled in early 2005.

- Education Committee
- Electronic Services Committee
- Mathematical Competitions Committee
- · Publications Committee
- Research Committee
- Student Committee
- Women in Math Committee

Publications Committee Report

Chair: Dana Schlomiuk (Montréal)

Michael Bennett - UBC H.E.A. Eddy Campbell - Memorial (to June 30)

Man-Duen Choi - Toronto

Robert D. Rosebrugh - Mount Allison

Christiane Rousseau - Montréal (from of July 1) Catherine Sulem - Toronto

One of the tasks of the Publications Committee during 2004 was to consider new Editors-in-Chief for the CMB and the CMS Book Series and Associate Editors for these publications.

The mandates of the three Editors-in-Chief of the Canadian Mathematical Bulletin (CMB), James Lewis (Alberta), Arturo Pianzola (Alberta) and Noriko Yui (Queen's) will end their term in December 2005. The Editors-in-Chief informed the Publications Committee that they were willing to serve for another five years. The Publications Committee also received an application from Nantel Bergeron and Jianhong Wu (York). The Publications Committee felt that the work done by Lewis, Pianzola and Yui had been splendid and the CMB is getting a lot of very good and excellent papers from all over the world. After a review of the applications received, the Committee voted in favor of recommending to the CMS Board Directors that Nantel Bergeron and Jiang Wu, of York, be appointed as Editors-in-Chief of the CMB for the period 2006-2010. It was a hard decision and the Committee felt that their expertise covered new areas (in particular applied mathematics) and that their respective fields were complimentary.

The mandates of three of the associate editors for the Journal and Bulletin - Martin Barlow (UBC), Peter Borwein (SFU) and Nicholas Pippenger (Princeton) ended in December 2004. The Publications Committee recommended and the Board of Directors appointed three new associate editors to replace them. The new associate editors are Luc Devroye (McGill) Thomas Ransford (Laval) and Ravi Vakil (Stanford) and their mandate is five years: January 1, 2005 to December 31, 2009.

The mandate of Jonathan Borwein (Dalhousie) and Peter Borwein (SFU) as Editors-in-Chief for the CMS Book Series ended on December 31, 2004. Peter Borwein wished to step down as an Editor-in-Chief but Jonathan Borwein was willing to continue. The Publications Committee recommended that Jonathan Borwein and Karl Dilcher (Dalhousie) be appointed as the Editors-in-Chief for a five-year period, January 1, 2005 to December 31, 2009. The Publications Committee also recommended the following be appointed as associate editors: Peter Borwein, for two years (January 1, 2004 to December 31, 2007), Samuel Shen (Alberta), for three years (January 1, 2004 to December 31, 2007) and Richard Kane (Western), for a period of four years (January 1, 2004 to December 31, 2008).

The mandate of Iliya Bluskov as a Problems Editor for Crux

Mathematicorum with Mathematical Mayhem ended in December 2004 and, as he was willing to serve for another term, the Publications Committee approved extending his mandate for five-years (January 2005 to December 2009).

The Publications Committee also agreed to extend the mandate of Bruce Gilligan as the Articles Editor for CRUX with MAYEM for three years (January 1, 2005 to December 31, 2007). The Publications Committee approved Robert Bilinsky (CEGEP) as the Skoliad Editor for CRUX with MAYHEM for a three-year term. An extension of the term of Edward Barbeau as Notes Education Editor for three years (January 1, 2005 to December 31, 2007) was also approved.

The Committee was delighted that Michael Doob (Manitoba) was willing to continue as Consultant to the Publishing Office and his mandate was renewed for a period of three years (January 1, 2005 to December 31, 2007). The mandate of Srinivasa Swaminathan (Dalhousie) as Assistant Technical Editor was also renewed for the same period.

For the 2004 G. de B. Robinson Prize, I acted as the Chair of the Jury. The G. de B. Robinson Prize for the best article which appeared in the CJM during the period 2002-2003 was awarded jointly to Viktor Havin (St. Petersbourg) and Javad Mashreghi (Laval) for their joint papers regarded as one paper: "Admissible majorants for model subspaces of H² I: Slow winding of the generating inner function", Canad. J. Math. 55 (2003) no.6, 1231-1263, and "Admissible majorants for model subspaces of H² II: Fast winding of the generating inner function", Canad. J. Math. 55 (2003) no.6, 1264-1301. Javad Mashreghi received his prize certificate at the 2004 Winter Meeting in Montreal and Victor Havin's certificate has been sent.

At the 2004 summer and winter meetings, reports were presented by representatives from all publications boards and these reports reflected a sustained and healthy activity.

Finally, at the beginning of 2003, the Royal Society made a proposal to the CMS that the Mathematical Reports/ Comptes Rendus become a joint RS/CMS publication. As was reported last year, the Publications Committee was involved in the study of this proposal. A written response to this proposal was sent to the Royal Society in 2003 for consideration. At this time, it appears no decision has been reached regarding this joint initiative.

Research Committee Report

Chair: Ragnar-Olaf Buchweitz (Toronto)

Steven P. Boyer - UQAM Henri Darmon - McGill Andrew Granville - Montréal Finnur Larusson - UWO Nicole Tomczak-Jaegermann - Alberta Jianhong Wu - York

The 2004 Summer Meeting of the CMS was held jointly with the Canadian Applied and Industrial Mathematics Society (CAIMS), with the participation of the 16th Canadian Symposium on Fluid Dynamics (CSFD) and the Canadian Society for History and Philosophy of Mathematics (CSHPM), in Halifax (June 13-15).

The joint meeting welcomed the large number of 448 participants and was hosted by Dalhousie University with Richard Wood (Dalhousie - CMS) and Raymond Spiteri (Dalhousie - CAIMS) as Meeting Directors, and Peter Fillmore (Dalhousie) as Chair, Local Arrangements.

The Public Lecture, entitled "Getting at the Truth", was given by Edward Barbeau (University of Toronto).

The plenary speakers were:

Peter Cameron (Queen Mary University)

Craig Fraser (University of Toronto)

Mark Lewis (University of Alberta)

Alan C. Newell (University of Arizona/University of Warwick)

Peter Olver (University of Minnesota)

Frank T. Smith (University College London)

Mikhail Zaicev (Moscow State University)

The CMS Jeffery-Williams Lecture was delivered by Joel Feldman (UBC) and Leo Jonker (Queen's University) received the first CMS Excellence in Teaching Award.

CAIMS contributed the following Award Lectures:

The CAIMS Research Prize Lecture was given by Robert D. Russell (Simon Fraser University); the CAIMS Cecil Graham Doctoral Dissertation Award Lecture was presented by Ramadan Akila (University of Guelph), and Keith Ranger (University of Toronto) received the CAIMS Arthur Beaumont Distinguished Service Award.

There were 15 symposia as described below and a Contributed Paper Session organized by Richard Sutherland (Dalhousie University).

16th Canadian Symposium on Fluid Dynamics - Org: Richard Karsten (Acadia University) and Serpil Kocabiyik (Memorial University).

Applications of Invariant Theory to Differential Geometry - Org:

Robert Milson (Dalhousie University) and Mark Fels (Utah State University).

Classical Analysis in honour of David Borwein's 80th Birthday - Org: Jonathan Borwein (Dalhousie University) and Mike Overton (New York University).

Dynamical Systems - Org: Michael A. Radin (Rochester Institute of Technology).

Financial Mathematics - Org: Joe Campolieti, David Vaughan, and Yongzeng Lai (Wilfrid Laurier University).

General Topology and Topological Algebra - Org: Ilijas Farah, (York University) and Vladimir Pestov (University of Ottawa).

Graphs, Games and the Web - Org: Anthony Bonato (Wilfrid Laurier University), Jeannette Janssen (Dalhousie University) and Richard Nowakowski (Dalhousie University).

History of Mathematics - Org: Thomas Archibald (Acadia University).

Hopf Algebras and Related Topics - Org: Yuri Bahturin (Memorial University), Margaret Beattie (Mount Allison University), Luzius Grunenfelder (Dalhousie University), Susan Montgomery (University of Southern California) and Earl Taft (Rutgers University).

Mathematical Education - Org: Richard Hoshino (Dalhousie University) and John Grant McLoughlin (University of New Brunswick).

Nonlinear Dynamics in Biology and Medicine - Org: Shigui Ruan (Dalhousie University).

Numerical Algorithms for Differential Equations and Dynamical Systems - Org: Tony Humphries (McGill University).

Qualitative Behaviour and Controllability of Partial Differential Equations - Org: Holger Teismann (Acadia University).

Topology - Org: Keith Johnson (Dalhousie University) and Renzo Piccinini (University of Milan).

Topos Theory - Org: Myles Tierney (Rutgers University and University of Quebec at Montreal).

Three related activities were organized separately from the meeting. The 2004 Project NExTMAC National Workshop on June 12, the 5th Annual MITACS Conference, June 10-12, and the 11th Canadian Undergraduate Mathematics Conference, June 16-20.

Moreover, NSERC staff and the Grant Selection Committee members organized an NSERC Workshop on "Tips to prepare

Research Committee Report - continued

your next Discovery Grant Application" (June 15), a very welcome initiative.

The 2004 Winter Meeting of the CMS was held in Montreal on December 11-13, 2004. The meeting was hosted by the Department of Mathematics and Statistics, McGill University, where also the first Canadian Mathematical Congress took place in 1945.

It welcomed more than 475 participants.

The Meeting Director was Olga Kharlampovich (McGill) and the Chair - Local Arrangements - was William G. Brown (McGill).

The Public Lecture on "Complexity of Computations and Cryptography" was delivered by Alexei G. Myasnikov (McGill).

The plenary speakers were:

Michael Bennett (British Columbia)
Persi Diaconis (Stanford)
Rostislav Grigorchuk (Texas A&M)
François Lalonde (Université de Montréal)
Rainer Steinwandt (Karlsruhe)

The CMS Coxeter-James Prize Lecture was presented by Izabella £aba (UBC), and the CMS Doctoral Prize Lecture was given by Nicolaas Spronk (Waterloo).

Moreoever, Victor Havin (St. Petersburg) and Javad Mashreghi (Laval) received the CMS G. de B. Robinson Award, and the CMS Distinguished Service Award went to Edgar Goodaire (Memorial). Jean-Marie De Koninck (Laval), winner of the CMS Adrien Pouliot Prize, gave a very spirited presentation at the Participants' Luncheon.

There were 16 sessions as described below and a Contributed Paper Session, organized by the Chair, Local Arrangements.

Algebraic Combinatorics - Org: François Bergeron, Riccardo Biagioli, Peter McNamara and Christophe Reutenauer (UQAM) Approximation Theory - Org: Richard Fournier and Paul Gauthier (Montreal).

Arithmetic Geometry - Org: Eyal Goren (McGill) and Adrian Iovita (Concordia).

Combinatorial and Geometric Group Theory - Org: Inna Bumagin (Carleton) and Dani Wise (McGill).

Commutative Algebra - Org: Sara Faridi (Ottawa), Sindi Sabourin (York), Will Traves (US Naval Academy) and Adam van Tuyl (Lakehead).

Discrete Geometry - Org: Karoly Bezdek (Calgary), Rob Calderbank (Princeton), Robert Connelly (Cornell) and Bob Erdahl (Queen's).

Dynamical Systems and Applications - Org: Michael A. Radin (RIT).

Groups, Equations, Non-commutative Algebraic Geometry - Org: Olga Kharlampovich and Alexei G. Myasnikov (McGill).

Harmonic Analysis - Org: Galia Dafni (Concordia).

History of Mathematics - Org: Thomas Archibald (Acadia, Dibner Institute MA), Rich O'Lander (St. John's), Ron Sklar (St. John's) and Alexei Volkov (UQAM).

Interactions between Algebra and Computer Science - Org: Olga Kharlampovich (McGill), Alexei G. Myasnikov (McGill) and Vladimir Shpilrain (CUNY).

Mathematical Methods in Statistics - Org: Russell Steele, Alain Vandal and David Wolfson (McGill).

Mathematics for Future Teachers - Org: Leo Jonker (Queen's)
Number Theory - Org: Chantal David (Concordia) and Andrew
Granville (Montreal).

Special Structures in Differential Geometry - Org: Gordon Craig (Bishop's) and Spiro Karigiannis (McMaster).

Universal Algebra and Complexity - Org: Jennifer Hyndman (UNBC), Benoit Larose (Concordia) and Denis Therien (McGill).

The next four meetings of the CMS will be held in Waterloo (University of Waterloo, Summer 2005), Victoria (University of Victoria, Winter 2005), Calgary (University of Calgary, Summer 2006), and Toronto (University of Toronto, Winter 2006).

The Research Committee chose Robert McCann (University of Toronto) as the 2005 Coxeter-James Prize Lecturer for the CMS Winter 2005 Meeting, Andrew Granville (Universite de Montreal) as the 2006 Jeffery-Williams Prize Lecturer, and Penny Haxell (University of Waterloo) as the 2006 Krieger-Nelson Prize Lecturer for the CMS Summer 2006 Meeting.

The pool of nominations for these prizes was again very wide and deep this year, testifying to the health and strength of mathematical research in Canada.

Student Committee Report

Co-Chairs: Susan Cooper (Queen's) and Robert Juricevic (Waterloo) - to June 2004

Joy Abramson and Antoine Khalil - from July 2004

Erica Blom - Queen's Adriana T. Dawes - UBC Sandra Gregov - York Duana Kipling - Saskatchewan

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Youness Lamzouri

Margaret-Ellen Messinger - Dalhousie

Taunya Nieuwpoort - Acadia

Gillman Payette - Dalhousie Dan Pollock - Victoria Boris Reitman - SFU Nithum Thain - Queen's Robert E. Woodrow - Calgary Graham P. Wright - Ottawa

2004 was another productive and exciting year for the CMS Student Committee (often referred to as Stude). Along with a faculty supervisor, Stude is comprised of ten students, both undergraduate and graduate, whose mission is to foster the development of a vibrant and highly interactive community of Canadian post-secondary mathematics students that leads to the continued creation of important long-term bonds between individuals. More information on the goals of Stude and its membership can be found on the CMS web site:

www.cms.math.ca/Students.

Change of Membership:

We thank all our past members, in particular Susan Cooper and Robert Juricevic, the terrific past co-chairs of Stude. Susan and Robert gave a great deal of time to Stude over a number of years, and we greatly appreciate all their hard work. In July 2005, we will have three vacancies, including our webmaster position.

Operations Manual for the Student Committee:

Duana Kipling and Susan Cooper have completed the first version of an operations manual for Stude, a projected initiated by Dan Piché. The operations manual describes the ongoing Stude activities. It is continually updated, and has been very helpful with easing the transition of membership.

Student Newsletter:

One way in which Stude promotes the interaction between Canadian post-secondary mathematics students is through our semiannual newsletter, "The Student Mathematical Communicator", which is distributed to all mathematics departments in Canada. The newsletter communicates information of interest to students about Stude and the CMS. Stude usually publishes and distributes two student newsletters a year, one in each of the fall and winter semesters. In 2004, one issue was distributed in print, and the second was made available online only. We plan to return to distributing two

newsletters in 2005. Dan Pollock has just begun a two-year term as the newsletter editor, taking over from Antoine Khalil, who oversaw the previous four issues.

Graduate Student Events:

As in past years, Stude organized a social event for graduate students at each of the CMS meetings in 2004. The events are becoming more popular and are always greatly enjoyed by the students in attendance. Stude plans to continue organizing these events at which Stude and the CMS are promoted to students attending the meeting as well as to local mathematics students. The next graduate student event will be held in Waterloo during the CMS 2005 Summer Meeting. The graduate student socials are organized by the Stude co-chairs, Joy Abramson and Antoine Khalil. We wish to thank the local organizers of the CMS meetings for their enthusiastic co-operation in planning these socials.

Regional Conferences:

Each year Stude has a goal of financially supporting four student activities, one in each of the four regions across Canada. In 2004 we supported two regional conferences: the Fourth Canadian Summer School in Quantum Information and the AARMS Summer School. An amount of \$125 was given to each group. In exchange for the funding, Stude asks that its promotional poster (designed by Renato Dedic) be displayed at the activity funded so that Stude's support can be acknowledged, and that photos or descriptions of the activity be given to Stude to be put on the Stude web page. Adriana Dawes looked after this project in 2004. The Committee hopes to support four events in 2005, each in the amount of \$125.

Maintaining a Student Web Site:

Boris Reitman is completing his term as our webmaster, having created the Stude website available at www.cms.math.ca/
Students. During his term, Boris created a web design for Stude and also worked with CUMC organizers on the CUMC web pages. We are currently looking for a new webmaster for Stude.

Student Committee Report - continued

Nithum Thain is creating monthly problem sets to be posted to the webpage and hopes to implement an associated online discussion forum.

Canadian Undergraduate Mathematics Conference:

CUMC 2004, the 11th annual Canadian Undergraduate Mathematics Conference, was held at Dalhousie University from June 16 to June 20, just after the CMS Summer Meeting. The CUMC 2004 president, Gillman Payette, did a fantastic job, along with his committee! The conference was a huge success and very well attended. Stude, on behalf of the CMS, once again gave \$1,000 towards the conference. A CUMC operations manual, originally developed by Dan Piché, Benoit Charbonneau, and the CUMC 2002 Committee, is currently being updated by Stude member Sandra Gregov. This manual has proved very helpful to aid in the continuity of the CUMC.

We are now looking forward to CUMC 2005, which is being organized by Erica Blom and her team, and will be held July 13 to July 17 at Queen's University in Kingston. For more details, see www.cumc.math.ca.

Future Studc Projects:

Stude is embarking on some very exciting new projects. Some of these include setting up student email lists in order to communicate with students from across Canada, further exploring how to promote the CMS to Canadian students, an updated advertising poster, and exploring new ways to encourage students to join the CMS and attend CMS meetings. We look forward to reporting on these projects in 2005!

Women in Mathematics Committee Report

Chair: Judith J. McDonald (Washington State University)

Malgorzata M Dubiel - SFU Leah Edelstein-Keshet - UBC Kathryn E. Hare - Waterloo

Dorette Pronk - Dalhousie Mateja Sajna - Ottawa

The Committee on Women in Mathematics is charged with monitoring the status of women within the Canadian mathematical community, recommending and initiating actions that will help to ensure equitable treatment of women in this community, and with encouraging the participation of women in mathematics at all levels.

The Committee has put together a survey to be sent to mathematics departments in universities across Canada. The survey will be sent out to the chairs of mathematics departments early in 2005. The purpose of the survey will be to get a general picture of the demographic profile of mathematics departments in Canada.

The Committee continues to maintain the Directory of Canadian Women in the Mathematical Sciences: a collection of web pages of Canadian women who are actively involved in research or studies in mathematics, or any other aspects of the mathematical sciences. The Directory is a valuable source for information about Canadian women in mathematics.

In June of 2003, the CMS Committee on Women in Mathematics, together with PIMS, hosted the first "Connecting Women in Mathematics Across Canada" conference. We are planning a similar conference for the summer of 2005 at BIRS.

This year the Committee worked on fund raising for graduate student travel, and on planning the event.

The CMS Women in Mathematics Committee meeting at the 2004 CMS Winter Meeting was held as an open luncheon (funded by Leah Edelstein-Keshet and the CMS Women in Mathematics Committee). Many issues regarding Women in Mathematics were discussed. This format has proven to be very useful for the Committee to get a barometer of the issues facing women in the academic community in Canada, and has been an opportunity for women within the community to speak out about issues they are facing.

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Contributors

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Acadia University, Department of Mathematics & Statistics

William D. Banks

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Dr. William O.J. Moser Dr. Monica Nevins Nelson Thomson Learning

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CMS Executive Office

Canadian Mathematical Society 577 King Edward Ottawa, Ontario K1N 6N5 Telephone: (613) 562-5702 Fax: (613) 565-1539

> office@cms.math.ca www.cms.math.ca

CMS Executive Office Staff

Nathalie Blanchard Assistant to the Executive Director

Suzanne Duncan Adminstrative Clerk

Gertrud Jeewanjee Meetings Coordinator

Raju Kallumkal Web Services Consultant

Alan Kelm Web Services Manager

Suzanne Lalonde Administrative Clerk

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Sany Sam Database Consultant

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