

Canadian Mathematical Society Société mathématique du Canada

2002

Annual Report to Members

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President's Report

Christiane Rousseau (Université de Montréal)

2002, A good year for CMS and Mathematics in Canada

The year 2002 was an exciting year for CMS and for mathematics in Canada, due to the quality of the discipline and the dedication of so many members of the Canadian mathematical community. As President, I again wish to remind you how hard and effectively our Executive Office continues to work and how many activities the Society is engaged. The Executive Director's report details changes in the Executive office. Whether we choose to compare with other Canadian academic societies or with foreign mathematical societies, we take considerable pleasure in both the scale and level of function we provide. Examples include our annual meetings and prizes, our active publication programme, sponsored high school competitions and Math Camps (there were 13 this year (2002) with at least one camp in each province), the Endowment Fund Grants Competition which has just completed its third set (first full cycle) of awards funding worthy mathematical projects ... and much else. Information on the via Competition found can be Camel www.cms.math.ca/Grants/.

Central, as always, to last year's activities were the Summer and Winter Meetings, again aided by the generous support of the National Programme Committee of the three Canadian Research Institutes (Fields, CRM and PIMS) and the Mathematics of Information Technology and Complex Systems Network (MITACS NCE). We were extremely happy with the results of the last reallocation exercise at NSERC. These positive results owe a lot to the efforts of the community in the last 6 years, and in particular to the leading role of the Steering Committee for pure and applied mathematics and its Chair, Richard Kane, whom I would like to thank in the name of the community. The envelopes of the Institutes, GSC 336, and of CSC 337 were increased. In 2002 BIRS started planning its scientific programming. BIRS is going to be exceptionally useful for Canadian Mathematics, and we look forward to the opening in the spring of 2003.

CMS Summer Meeting (Université Laval)

The 2002 Canadian Mathematical Society's Summer Meeting was hosted by Université Laval, from June 15-17, 2002. Our meeting, in addition to its scientific merit, are an excellent way to build and maintain friendships within the mathematical community. The meeting included fourteen diverse symposia, contributed papers, five plenary speakers, a public lecture, and two prize lectures. Additionally an Honorary Degree was awarded to Robert

Langlands (IAS). The *Jeffery-Williams Lecture* was given by Ed Perkins, of the University of British Columbia, who was the 1986 Coxeter-James Lecturer. The *Krieger-Nelson Lecture* was given by Priscilla Greenwood (University of British Columbia). The public lecture was given by Jean-Marie De Koninck (Laval University).

The CMS Winter Meeting (University of Ottawa)

The Canadian Mathematical Society's 2002 Winter Meeting was held at the Marriott Hotel from December 8 to 10, 2002, hosted by the University of Ottawa, the home of the CMS. It was very successful both intellectually and socially. The Coxeter-James Lecture was given by Lisa Jeffrey (University of Toronto). The CMS Doctoral Prize Lecture was given by David Kerr who got his degree from the University of Toronto and is now at the University of Rome. The CMS Distinguished Service Award was presented to Peter Lancaster, University of Calgary. The G. de B. Robinson Award was given to Ted Chinburg, Manfred Kolster and Victor Snaith, for their exceptional paper "Comparison of Ktheory Galois module structure invariants" published in the Canadian Mathematical Journal in 2000. The public lecture, "Passwords: Are they the weakest links?", was given by Robert Zuccherato from Entrust.

Canada School Mathematics Forum

The Canada School Mathematics Forum will be held at the *Université du Québec à Montréal* (UQAM) on May 16-18 2003 with a follow up meeting in Ontario two years later. The first meeting will bring together roughly 200 people from all provinces and territories representing different groups with interest in and impact upon mathematical education in elementary, middle and high school (roughly grades K-12). The co-chairs are Christiane Rousseau (UdeM) and George Bluman (UBC), who are building the scientific programme with the help of a strong scientific committee. The local organizing committee (led by Louis Charbonneau, UQAM) has done an excellent job.

The intention is for the first meeting to function primarily as an opportunity to compare issues and best practices across the country. It should also identify those issues on which subgroups can prepare more detailed findings to be presented at the second meeting. These findings will be published electronically and distributed widely. It is hoped that the CMS, through these fora and the connections enhanced by them, can function more actively as a facilitator and clearing house on such educational issues. This,

we expect, will be facilitated by the active participation of the three institutes. Although most participants are invited it is possible to apply for participation on the web at http://www.cms.math.ca/Events/CSMF2003/

First Canada-France Meeting

At the initiation of Michel Waldschmidt, President of the French Mathematical Society, we are now undertaking a multi-society (pure and applied) meeting in Toulouse on July 12-15, 2004: "Toulouse 2004: Premier congrès Canada/ France des sciences mathématiques". The meeting will be organized jointly by the French societies SMF (Société mathématique de France), SMAI (Société de mathématiques appliquées et industrielles), SFdS (Société française de statistique) and in Canada by CMS and SSC with the support of CAIMS. Francis Clarke is the meeting director and an exciting scientific program is well under way.

Joint meeting in Halifax

The 2004 Summer Meeting in Dalhousie, Halifax will be held jointly with CAIMS, with the participation of CSHPM (Canadian Society of History and Philosophy of Mathematics) and CSFD (Canadian Symposium of Fluid Dynamics). Richard Wood (CMS) and Patrick Keast (CAIMS) are the meeting directors.

"Math in Moscow"

CMS and NSERC agreed to create the NSERC-CMS "Math in Moscow" scholarships to allow undergraduate or beginning graduate students at a Canadian university to spend a semester at the Moscow Independent University in the "Math in Moscow" program. There will be two competitions a year. One scholarship will be awarded at the fall competition (deadline: September 30) and two in the spring (deadline: April 15). The first competition was held in September 2002. The committee received strong applications and the scholarship was awarded to Jonathan Kavanagh from Memorial University.

New CMS Prize in Excellence in Teaching

At the December meeting the Board approved the creation of a new Prize in Excellence in Teaching supported by Nelson Thomson Learning for a 3 year period. Nominees from CEGEPs or colleges are also eligible. The first call for nominations will be in the fall of 2003 and the first prize awarded at the Summer meeting of 2004.

General assembly of the IMU

A Canadian delegation of Kenneth Davidson, Nassif Ghoussoub, Jacques Hurtubise, Cameron Stewart and I attended the general assembly of the IMU in Shanghai. Bernard Hodgson was reelected Secretary General of ICMI (International Commission of Mathematical Instruction). Jonathan Borwein is Chair of the IMU's Committee on

Electronic Information and Communication. The CEIC (www.math.ceic.ca) continues to make slow, but hopefully steady, progress on its charter, on issues of metadata, digital publishing, copyright and intellectual property. Presentation of the document "Best current practices: Recommendations on Electronic Information Communication" was very much appreciated by the members of the Assembly. The Canadian Mathematical Society has had some preliminary discussions with the International Mathematical Union to gauge whether it would favourably view a bid by Canada to host the 2010 International Congress of Mathematicians in Montreal. The IMU has indicated that Montreal would be an acceptable venue, and so we will work closely with the National Research Council of Canada over the next two years to assess the feasibility of this proposal.

ICM 2002 in Beijing

The International Congress of Mathematicians in Beijing last August attracted more than 4000 participants. The Congress began with an opening ceremony in the Great Hall of the People, presided over by Zhi-Ming Ma, President of the Chinese Mathematical Society, with the presence of Jiang Zemin, President of the People's Republic of China, as well as many other high-ranking Chinese dignitaries. Not only did some of the highestranking officials of the People's Republic of China make it a point to attend the Congress's opening ceremonies, but the Chinese government contributed the unheard-of sum of \$1.2 million US to underwrite the Congress. The Canadian Mathematical Society, the Centre de recherches mathématiques, the Fields Institute, and the Pacific Institute of Mathematical Science jointly organized a reception at the Canadian Embassy on August 21 to honour the Fields medallists and the recipient of the Nevanlinna Prize. Mr. Houlden, Minister of Political and Public Affairs at the Embassy recalled the role played by Charles Fields, the organizer of the 1924 International Congress in Toronto, in creating the Fields Medals. He was extremely impressed by the support given to ICM 2002 by the Chinese officials. We thank Cam Stewart and the CMS staff for their help in preparing the reception: it is more difficult to organize something in a foreign country!

CMS Books and Tracts

The CMS Books in Mathematics series with Springer New York now has twelve volumes published and many others under contract. Reviews will, I am sure, continue to appear in the CMS Notes. In June 2000, the CMS launched a parallel series of shorter books, CMS Tracts in Mathematics, to be published by the American Mathematical Society, edited by Ken Davidson and Cam Stewart. Each series hopes to publish broadly and we should directly invite members of

other Canadian mathematical science societies to consider publishing their work through these vehicles. See www.cms.math.ca/ Publications/

Executive Director

I'm very pleased to report that, at the December Board Meeting, Graham Wright's appointment as Executive Director for a further year (July 2004 - June 2005) was approved. This will allow the Executive Director's and President's terms not to end at the same time. I want to express my own deep gratitude for all that Graham has offered to the CMS over the past 23 years and for accepting to delay his retirement to help CMS. It is largely because of his extraordinary commitment to the CMS over that very long period, that the Society is in the robust shape that it is. I also express my thanks, and those of the CMS, to the University of Ottawa which has housed and supported the CMS over the past 23 years.

Some Ongoing Issues

Prize Nominations. The present nomination process for our prizes elicits many candidates from some universities but few if any from others with very good potential nominees. We intend to construct posters to better remind the community of the nomination protocol. That said, I think it is worth emphasizing that making a nomination for one of our awards is itself an excellent way of acknowledging the contributions of one's colleagues, whether or not the nomination is successful. Details about all the prizes and something of their history is to be found at: www.cms.math.ca/Prizes/.

Membership. The Society, like many, is experiencing some difficulty in attracting new members. The nature of university affiliation has changed over the last quarter century and we all have many calls on our time and finances. As the retirement of our older members accelerates, this has led us to consider how best to make apparent the value of membership especially to our newer colleagues. Thus, I would ask each of you to consider doing some recruiting in your own institution.

Financial situation of the CMS. Our endowment fund depreciated during the last two years because of the difficult market situation and it is now below 1.5 million. Also the revenue coming from publications is going down because the number of subscriptions is decreasing. Although important efforts are being made both to publicize our journals and to increase the quality it is clear that electronic publishing is threatening our revenues. If we cannot replace these revenues, the CMS may need to cut some of its activities.

In Conclusion

As will be clear from my report, the Executive Director's and all the committee reports, the Society is for the most part thriving. The year 2003 will see a markedly increased emphasis on fund raising, on membership recruitment, and on joint initiatives with other societies and groups.

Executive Director's Report – A lot of help leads to success

Graham P. Wright (University of Ottawa)

The 2002 annual reports from the President, the Treasurer, and the 12 standing committee chairs demonstrate the extensive and increasing range of research, educational, and publishing activities which are administered and supported by the Society. Rather than repeat items dealt with in the other annual reports, I will focus on the scope of the administrative operations across the country and some highlights from 2002 and for 2003.

As Executive Director, I see first-hand the excellent service the Society receives, not only from the full-time and part-time staff at the Executive Office on the campus of the University of Ottawa, but also from the other staff at the numerous editorial and other offices throughout Canada. In addition, the CMS benefits from a large number of volunteers who help on editorial boards, on committees, with our semi-annual meetings, and with our educational and other activities. The support from the many universities associated with our endeavors is a crucial component, permitting the Society to deliver a wide array of activities in a cost effective manner.

All of the Society's activities are coordinated by the Executive Office staff. The full-time staff at the Executive Office includes the Operations Manager (Monique Bouchard), the Web Services Manager (Alan Kelm), the Accountant (Diane Ellis), the Membership and Publications Agent (Liliane Sousa) and the Administrative Clerk (Suzanne Lalonde). Caroline Baskerville, who was the Assistant to the Executive Director for the past four years, left the position in June 2002. The position was filled on a temporary basis to the end of 2002 and I am pleased to report that, effective January 2003, Nathalie Blanchard will be the Assistant to the Executive Director. In addition to these six full-time positions, there are a number of part-time employees who help with the database, the web site and computer support.

The TEX Office at the University of Manitoba, under the direction of Michael Doob, ensures that all issues of our two research journals (the *Canadian Journal of Mathematics* and the *Canadian Mathematical Bulletin*) are produced in camera-ready form and on schedule. The TEX Office staff, in conjunction with Executive Office staff, ensures that all the abstracts for our semi-annual meetings are processed and made available on the CMS web site, and also provides some technical support for the CMS Book Series. The TEX Office has one full-time assistant (Laura Kirland) who works on site, and a part-time assistant (Shelly Ames), located at the University of Calgary. Another important individual

associated with the TEX Office is the Production Editor (Srinivasa Swaminathan - Dalhousie)

For the past several years, as part of an agreement between the CMS and the Division of Mathematical and Physical Sciences of the Royal Society of Canada, the Executive Office and the TEX Office has provided subscription and TEXing services for *Mathematical Reports of the Academy of Science*. In 2002, the TEX Office also provided TEX services for the *Canadian Applied Mathematics Quarterly*. The CMS hopes to expand these contracted services and has developed a series of models and prices depending on the scope of the services required.

In 2003, the TEX Office will become the Publications Office, but will remain at the University of Manitoba. Craig Platt will be taking over from Michael Doob as the Technical Editor, Michael will assume the role of Technical Consultant, and S. Swaminathan will be the Associate Technical Editor. The position of CMS Publisher is still vacant but it is hoped that the position will be filled by mid-2003.

The editorial offices for the various publications for 2002 were as follows:

Canadian Journal of Mathematics

Editors-in-Chief (Henri Darmon and Niky Kamran – McGill University)

Canadian Mathematical Bulletin

Editors-in-Chief (James D. Lewis and Arturo Pianzolo – University of Alberta and Noriko Yui – Queen's University)

CRUX with MAYHEM

Editor-in-Chief (Bruce Shawyer – Memorial University)

CMS Notes

Editors-in-Chief (Peter Fillmore and S. Swaminathan – Dalhousie University)

CMS Book Series

Editors-in-Chief (Jonathan Borwein and Peter Borwein – Simon Fraser University)

CMS Tracts in Mathematics

Editors-in-Chief (Kenneth Davidson and Cameron Stewart – University of Waterloo)

ATOM - A Taste of Mathematics

Editor-in-Chief (Tony Thompson – Dalhousie University)

Electronic access to our publications is an increasingly important aspect of our publishing activities. The electronic delivery of our publications is made possible through the efforts of the Digital Editor (Loki Jörgenson) and the Assistant (Judith Borwein). In the new structure for the Publications

Office, the position of Digital Editor has been eliminated but it is hoped Loki Jörgenson will provide assistance as a Digital Consultant. Judith Borwein will continue as the Assistant Digital Editor.

As is evident from the other reports, much has been accomplished in 2002. The Summer Meeting, hosted by Laval University, and the Winter Meeting, hosted by the University of Ottawa, were both considerable successes and thanks go to the meeting directors, the organizers, and the Executive Office and local staff who made sure everything ran smoothly. All the publications continued to appear on or ahead of schedule, and the CMS Book Series is progressing very well with 12 books in print and 5 to be released in 2003.

The Society's 2002 competition program was very successful. Eighty students from 47 schools, wrote the 2002 Canadian Mathematical Olympiad. The Chair of the CMO Committee for 2002 was Daryl Tingley and the Society is very appreciative of his excellent work on both the CMO Committee and the Mathematical Competitions Committee for the past several years. The six students who represented Canada at the 2002 International Mathematical Olympiad in Glasgow did extremely well. Canada placed 12th out of 84 countries — a result which can be considered the best showing ever! The Asian Pacific Mathematics Olympiad (APMO), an international contest written in each participating country, has Canada as the Senior Coordinating Country for 2002, 2003 and 2004. A sub-committee, chaired by Bill Sands (University of Calgary), has been established to administer the APMO for these three years. Bill is also the Chair of the Society's IMO Committee.

The Society's last competition each year, the Canadian Open Mathematics Challenge, is really the start for the following year. Almost 6000 students participated in the 7th Open which was written on November 27, 2002. Largely based upon their performance on the Open, 85 students are being invited to write the 34th CMO in March 2003. The Open is organized in collaboration with the Centre for Education in Mathematics and Computing (CEMC – University of Waterloo) and I wish to thank Peter Crippin and the staff at the CEMC for all their efforts in making the Open such a successful national competition. Efforts continue to find a Title Sponsor for the Open.

Excellent performance in national and international competitions requires highly talented students. But training is also crucial. To all of the competition committee members, to the leaders, the coaches, the teachers and to the parents: congratulations on a good year. To Sun Life Financial (the Major Sponsor of the CMO) and the other corporate sponsors, to the provincial governments who support our educational

activities, to the "Centre de recherches mathématiques", the Fields Institute for Research in the Mathematical Sciences, and the Pacific Institute for the Mathematical Sciences, and to all the host universities: many thanks for your on-going help with these important activities and for support of the Society's Math Camps Program.

The National and Regional Math Camps Program has been one of the Society's most successful new programs. Further details regarding the 2002 Math Camps are given in the Annual Report of the Mathematical Competitions Committee (MCC). To date, the Math Camps have been the responsibility of the MCC. The Camps, however, are not competition based. A change is being considered which would create the position of a Math Camps Coordinator who would oversee the annual Math Camps Program. It is anticipated the Coordinator will be an ex-officio member of the MCC and the Education Committee. I am delighted to report that the Imperial Oil Charitable Foundation will continue as the Title Sponsor for these Camps for the next three years. For 2001, 2002, and 2003, the Camps also have been supported through a grant from NSERC PromoScience. It is hoped that this grant will be renewed and possibly increased for 2004 onwards.

During 2002, Eric Muller (Brock University) continued with the development of the Canadian Virtual Math Trail (www.BrockU.ca/cmt/). By the fall of 2003, with help from local teachers and colleagues, it is hoped there will be at least one site on the trail from every province. With this foundation, a national launch of the Trail is anticipated towards the end of 2003. Thanks to the efforts of Judith McDonald (Washington State University) and Harley Weston (University of Regina) the project "Mathematics with a Human Face" has made substantial progress. A number of profiles have been produced (http://mathcentral.uregina.ca/humanface/) and four of these will be featured on a poster that is currently being prepared. Copies of this poster will be sent to all high schools, colleges and universities in Canada, and to other agencies both inside and outside Canada.

In conclusion, I wish to thank the outgoing chairs of the Education Committee (Edward Barbeau - University of Toronto), the Electronic Services Committee (Jason Brown - Dalhousie University), the Publications Committee (Keith Taylor - University of Saskatchewan) and the Research Committee (Douglas Stinson - University of Waterloo) for all their efforts on these important committees.

Many individuals, institutions, companies and agencies have helped make 2002 a most successful year, to them, we also extend our thanks.

Treasurer's Report

Arthur Sherk (University of Toronto)

Contrary to the year-end estimates, our 2002 Operations Fund closed with an excess of revenue over expenses of \$61,618, rather than a deficit. This happy result came about mostly because of unexpectedly high revenue from publications late in 2002. Another factor was the favourable foreign exchange rate. This additional income in 2002 may be offset by a decrease in 2003. But the surplus never would have come about without the careful managing of expenditures by staff and committee chairs throughout the year. To all of these, my hearty thanks!

As we proceed through the 2003 fiscal year, we can do so with cautious optimism. We will watch for trends — good or bad — that could affect the financial picture. The apparent appreciation of the Canadian dollar relative to the U.S. dollar, for example, will have an adverse effect on the income from foreign exchange. We continue to work hard

at finding sponsors for our educational and research activities, and we have made modest increases in subscription prices, etc. Hopefully, the small changes will add up to another surplus in 2003.

Also, our investments have suffered from poor returns for some time. We need to be careful in our use of returns from the Restricted Investment Funds until an upturn in the economy brings relief. Certainly the Endowment Grants Committee has shown fine restraint in the use of funds under its control. By good managment, the Committee has kept the expenditures below the upper limits assigned, without apparent damage to the program itself.

Balance Sheet as at December 31, 2002

	Operations Fund \$	Designated Activities Fund \$	Endowment Fund \$	Mathematical Olympiads Fund \$	2002	2001 \$
ASSETS						
Current Assets						
Cash	159,913	_	_	_	159,913	268,085
Temporary investments	62,284	_	_	_	62,284	10,223
Accounts receivable and accrued interest	391,839	_	8,500	_	400,339	224,704
Budget advances	56,000	_	_	_	56,000	33,500
Prepaid expenses	24,562	_	_	_	24,562	15,358
Interfund receivable (payable)	(19,875)	122	13,512	6,241		
	674,723	122	22,012	6,241	703,098	551,870
Investments	_	4,084	1,593,555	180,882	1,778,521	1,770,762
Capital assets	32,613			_	32,613	22,525
	707,336	4,206	1,615,567	187,123	2,514,232	2,345,157
CURRENT LIABILITIES						
Accounts payable and accrued liabilities	201,695	_	_	_	201,695	211,106
Deferred contributions (Note 6)	398,028	_	_	_	398,028	290,724
	599,723	_	_	_	599,723	501,830
FUND BALANCES						
Investment in capital assets	32,613	-	-	-	32,613	22,525
Restricted	_	4,206	1,615,567	187,123	1,806,896	1,780,747
Unrestricted	75,000				75,000	40,055
	107,613	4,206	1,615,567	187,123	1,914,509	1,843,327
	707,336	4,206	1,615,567	187,123	2,514,232	2,345,157

Statement of Revenue and expenditures as at December 31, 2002

OPERATIONS FUND	General Division	Publishing Division	Research Division	Education Division	2002	2001
REVENUE	\$	\$	\$		\$	\$
Grants	12,000	2,500	37,089	76,076	127,665	110,969
Donations	3,507	1,268	1,530	43,620	49,925	52,259
Membership fees	94,852	-	-		94,852	86,382
Registration fees and other sales	-	-	133,597	63,440	197,037	140,983
Subscriptions and publications	32	581,519	110	30	581,691	549,414
Advertising and promotional sales	8,763	24,106	7,779	230	40,878	28,289
Dividend, Interest and foreign exchange	6,124	318,398	810	810	326,142	264,015
	125,278	927,791	180,915	184,206	1,418,190	1,232,038
EXPENDITURES						
National projects	20,170	-	-	167,862	188,032	152,303
Speakers and prizes	253	303	47,740	16,320	64,616	80,259
Production	-	124,677	4,846	-	129,523	121,588
Promotional material	1,550	1,550	3,752	8,092	14,944	15,885
Salaries and benefits	94,104	278,925	101,583	94,104	568,716	526,987
Board and Committees	39,959	76,401	131	4,451	120,942	118,548
Legal audit	2,820	2,820	2,820	2,820	11,280	7,564
General administration	37,154	57,492	118,748	34,369	247,763	229,641
Amortization of capital assets	2,689	2,689	2,689	2,689	10,756	9,688
	198,699	544,857	282,309	330,707	1,356,572	1,262,463
Excess (Deficiency) of Revenue over expenditures	(73,421)	382,934	(101,394)	(146,501)	61,618	(30,425)
RESTRICTED FUND		Designated Activity Fund	Endowment Fund	Mathematical Olympiad Fund	Total 2002	Total 2001
REVENUE		\$	\$	\$	\$	\$
Donations		-	1,065	1,626	2,681	2,017
Membership fees		-	18,000	-	18,000	9,000
Dividend, interest and other income		124	56,335	6,314	62,773	60,156
Gain (loss) on disposal of investement		32	(6,884)	(816)	(7,668)	(138,019)
, , ,		156	68,516	7,124	75,796	(66,846)
EXPENDITURES						
Lifetime membership fees annual transfer		-	15,730	-	5,730	13,104
Projects		-	34,502	-	34,502	57,512
Mathematical Olympiad annual transfer		-	-	6,000	6,000	6,000
Commissions		20	8,960	1,020	10,000	10,350
		20	59,192	7,020	66,232	86,966
Excess (deficiency) of revenue over expenditures		136	9,324	104	9,564	(153,812)
Fund balances, beginning of year						
As previously reported		4,070	1,651,266	187,019	1,842,355	1,934,559
Prior period adjustment		-	(61,608)	-	(61,608)	-
As restated		4,070	1,589,658	187,019	1,780,747	1,934,559
Interfund transfer from the Operations Fund		-	16,585	-	-	-
Fund balances, end of year		4,206	1,615,567	187,123	1,790,311	1,780,747

Budgets - Operations Fund Summary

DIVISION GRAND SUMMARY	Actuals 2001 \$	Budget 2002 \$	Budget 2003 \$	
GENERAL				
Total Revenue	104,902	119,547	151,375	
Total expenditure	187,593	200,619	234,536	
NET REVENUE/EXPENDITURE	(82,691)	(81,072)	(83,161)	
EDUCATION				
Total Revenue	162,429	215,300	437,325	
Total Expenditure	293,761	337,479	537,657	
NET REVENUE/EXPENDITURE	(131,333)	(122,179)	(100,332)	
RESEARCH Total Revenue	140,474	196,231	191,405	
Total Expenditure	264,015	314,994	320,730	
NET REVENUE/EXPENDITURE	(123,541)	(118,762)	(129,325)	
PUBLISHING				
Total Revenue	824,233	873,945	897,634	
Total Expenditure	517,095	561,923	583,500	
NET REVENUE/EXPENDITURE	307,138	312,022	314,134	
OPERATIONS FUND				
Total Revenue	1,232,036	1,405,023	1,677,739	
Total Expenditure	1,262,464	1,415,014	1,676,422	
NET REVENUE/EXPENDITURE	(30,428)	(9,991)	1,317	

Budgets - General and Education Divisions

	Actuals prior 2001 \$	Budget 2002 \$	Budget 2003 \$
GENERAL - SUMMARY			
REVENUE			
Administration	15,366	21,150	16,575
Members	89,535	97,397	103,800
Projects	-	1,000	31,000
.TOTAL REVENUE	104,902	119,547	151,375
EXPENDITURE			
Administration	174,137	183,719	192,340
Members	150	1,600	2,396
Projects	13,305	15,300	39,800
TOTAL EXPENDITURE	187,593	200,619	234,536
NET REVENUE/EXPENDITURE	(82,691)	(81,072)	(83,161)
EDUCATION - SUMMARY REVENUE			
Administration	7,914	24,300	14,325
Competitions	94,615	123,000	131,000
Forum	-	-	202,500
Math Camps	34,900	48,000	63,500
Projects	25,000	20,000	26,000
TOTAL REVENUE	162,429	215,300	437,325
EXPENDITURE			
Administration	136,841	149,669	156,690
Competitions	101,783	128,060	122,930
Forum	-	-	189,877
Math Camps	39,929	40,450	49,860
Projects	18,208	19,300	18,300
TOTAL EXPENDITURE	293,761	337,479	537,657
NET REVENUE/EXPENDITURE	(131,333)	(122,179)	(100,332)

Budgets - Research and Publications Divisions

	Actuals 2001 \$	Budget 2002 \$	Budget 2003 \$
RESEARCH - SUMMARY			
REVENUE			
Administration	3,142	4,950	3,925
Meetings	137,332	191,281	187,480
Projects	-	-	-
TOTAL REVENUE	140,474	196,231	191,405
=			
EXPENDITURE			
Administration	129,590	136,919	147,640
Meetings	132,803	176,475	171,490
Projects	1,622	1,600	1,600
TOTAL EXPENDITURE	264,015	314,994	320,730
= NET REVENUE/EXPENDITURE _	(123,541)	(118,762)	(129,325)
PUBLISHING - SUMMARY REVENUE			
Administration	2,115	6,550	15,125
Journal	525,153	533,165	557,163
Bulletin	164,546	175,951	190,830
Notes	13,271	23,294	18,910
Electronic Services	54,631	65,305	57,581
Crux	48,799	52,580	47,425
Other Publications	15,717	17,100	10,600
Projects	-	-	-
TOTAL REVENUE	824,233	873,945	897,634
EXPENDITURE			
Administration	133,679	232,719	268,273
Journal	139,867	80,600	75,050
Bulletin	69,339	45,050	44,770
Notes	31,281	30,600	33,000
Electronic Services	97,797	123,114	111,657
Crux	37,854	39,740	43,650
Other Publications	7,177	9,700	6,900
Projects	101	400	200
TOTAL EXPENDITURE	517,095	561,923	583,500
NET REVENUE/EXPENDITURE	307,138	312,022	314,134

Advancement of Mathematics Committee Report

Christiane Rousseau (Université de Montréal), Chair

Jonathan Borwein (SFU)
Jean-Marie De Koninck (Montreal)
Arthur Sherk (Toronto)
John H.M. Whitfield (Lakehead)

E.R. Williams (Memorial) Robert E. Woodrow (Calgary) Graham P. Wright (Ottawa)

The Advancement of Mathematics Committee (AMC) (which, since July 2001, includes the Fundraising Committee as a sub-committee) has been very active during the past year.

Fields Medal Initiative. A dossier asking for the Federal Government to fund the Fields Medal was sent to the Prime Minister in May 2002 by Keneth Davidson and Jonathan Borwein. A follow-up letter signed by the three directors of the Institutes, by Cameron Stewart and by Christiane Rousseau was sent to the Prime Minister in September requesting Federal Government support for the Fields Medal Endowment Fund. This initiative could also be linked with Montreal's bid for the 2010 ICM. Senator Michael Kirby and the Honourable John Manley, both of whom have a mathematical background, received copies of the request.

Endowment Fund and Potential Endowment Drive. The CMS Endowment Fund is not really an Endowed Fund and the auditors refer to it as a Restricted Fund. The Finance Committee is considering this matter and has recommended that the CMS undertake a major fund raising campaign to drastically increase the amount in the CMS Endowment Fund. This may involve retaining the services of a professional fund raising company which could be quite costly. If \$5 million was raised, then \$200,000 in fees for professional services was thought reasonable. Possibilities for such an Endowment Drive could be: Capital Project - CMS Building - Endowment of all of the CMS prizes - Endowment of the Fields Medals. The Committee strongly supported such an Endowment Drive. If the CMS were to start by allocating some of the existing Endowment Fund for such projects, this might be seen very positively by potential donors. The Executive Director and the Treasurer have begun to develop appropriate terms of reference for a true Endowment Fund and fundraising ideas for the Endowment Fund, with a view to initiating an Endowment fundraising campaign. Robert Woodrow volunteered to assist in this effort.

How to increase the membership? The practice of offering complimentary memberships has not been successful and the Committee approved a new approach offering two years' membership for the price of one to individuals who have never been a paying member before. The CMS Membership Marketing Plan, developed by Liliane Sousa to develop member recognition and pride was very well received. A suggestion was made to explore Joint CAIMS/CSHPM memberships. Also there is the potential to attract more members from Québec. It was suggested that a letter be sent to all Board members with sufficient membership forms to canvass all colleagues who are not members of CMS. It was also suggested that consideration be given to recognizing, on an annual basis, the department that has the largest percentage increase in membership.It was suggested that departments could be requested to provide an up-to-date list of graduate students and their e-mail addresses so that invitations to join CMS could be forwarded to them in a timely manner. The significant benefit for members resulting from the Reciprocity Agreement with the AMS was noted. The Committee approved the addition of one category in life-time memberships for those who are between 55 and 60 years old.

Institutional membership. There are actually four levels of institutional membership and the Committee is recommending that the fee for non-degree colleges be the same as for undergraduate colleges.

Fund-raising activities. Imperial Oil has increased its support to the National and Regional Math Camps from \$25,000 to \$35,000 for the next three years. Approaches have been made to life insurance companies and to provincial ministries of education to support our wide array of education activities. Provincial governments and teacher associations are being approached also to support the 2003 Canadian School Mathematics Forum in Montreal.

Math with a Human Face. There has been intensive work by Judith McDonald and Harley Weston to develop "Math with a Human Face" at Math Central and to prepare a new poster on this theme.

Endowment Grants Competitions. The Review of the Endowment Grants Competition program has taken place. A number of modifications have been made to the application procedure and changes to the Terms of Reference for the Endowment Grants Committee have been approved by the Board.

A prize in History and Philosophy of Mathematics? There has been a suggestion that a prize in the area of History and Philosophy of Mathematics be considered which could be jointly sponsored by CMS and the Canadian Society of the History and Philosophy of Mathematics (CSHPM).

Greater cooperation with CSHPM. It was noted that special sessions on the History of Mathematics are becoming a regular part of the Society's meetings and, to increase cooperation between the CMS and the CSHPM, the expertise of CSHPM could assist in the selection of speakers for any future special sessions of this nature. It was suggested that consideration be given by CMS to having a plenary speaker on the History of Mathematics in the future. Such a plenary talk will be occurring at the CMS/CAIMS Meeting in Halifax in June 2004. Joint meetings in the future should also be considered.

Math Camp Coordinator. The Board has agreed to appoint a Math Camp Coordinator who will ex-officio be a member of the Education Committee and, for the time being, the Mathematical Competitions Committee.

Awards Officer. The Committee considered that it would be desirable for the Society to have an Awards Office and the Executive Director will be developing Terms of Reference for such a position.

CMS Publisher. The need for an individual to fill the position of CMS Publisher has been outlined previously. It may not be possible to find someone to fulfill all of the duties but it may be possible to find an individual who would perform some of the duties. A revised job description for this position with a more resticted focus will be developed.

"Math in Moscow". CMS and NSERC agreed to create the NSERC-CMS Math in Moscow scholarships to allow undergraduate or beginning graduate students at a Canadian University to spend a semester at the Moscow Independent University in the "Math in Moscow" program. There will be two competitions a year. One scholarship will be awarded at the fall competition (deadline: September 30) and two in the spring competition (deadline: April 15). The first competition was held in September. The committee received strong applications and the scholarship was awarded to Jonathan Kavanagh from Memorial University.

CMS Prize in Excellence in Teaching. At the December Meeting, the Board of Directors approved the creation of a new Prize for Excellence in Teaching. This prize is being supported by Nelson Thomson Learning for a 3 year period. Nominees from CEGEPS or colleges will be eligible. The first call for nominations will be in the fall of 2003 and the first Prize awarded at the 2004 Summer Meeting.

Education Committee Report

Ed Barbeau (Toronto), Chair

Richard J. Caron (Windsor)

Malgorzata Dubiel (SFU)

Bernard R. Hodgson (Laval)

Neal Madras (York)

Judith J. McDonald (Washington State)

Grace G. Orzech (Queen's)

Abraham Punnen (UNB – Saint John)

Ross D. Willard (Waterloo)

Sub-Committee - Camel

Ed Barbeau

Richard J. Caron

Judith J. McDonald

Provincial Competition

Ed Barbeau

Bernard R. Hodgson

Abraham Punnen

Ross D. Willard

Public Appreciation of Mathematics

Ed Barbeau

Richard J. Caron

Neal Madras

Judith J. McDonald

The Education Committee secured a place on the program of both the general meetings of the Society in the year 2002 for educational activities.

At the Summer Meeting, held at Laval University in Quebec City, there was a rich session devoted to the teaching and learning of geometry that was organized by Frederic Gourdeau and Bernard Hodgson of Laval University, who invited a roster of seven speakers. David Henderson of Cornell University gave a plenary talk with the title, "How can we encourage students to think like mathematicians?" He and a colleague Daina Taimina gave a workshop on experiencing geometry. The Society continued its tradition of plenary talks with a multimedia presentation by the popular Québec expositor, Jean-Marie De Koninck.

The session at the CMS Winter Meeting in Ottawa was organized by Tom Steinke of the Ottawa-Carleton District School Board. This looked at the use of technology in the teaching of mathematics, and we were pleased to note that a number of local teachers were able to attend the session.

Unfortunately, the Committee was unable to recommend the awarding of an Adrien Pouliot Award, but it has some individuals in mind who might be eligible to receive this award and will be actively soliciting nominations. In addition, the Education Committee awarded grants in support of contests that are held in Alberta, Manitoba, Northern Ontario, Quebec, the Maritime provinces and Newfoundland.

At the annual National Science Fair in Saskatoon, in May, 2002, the senior prize was awarded to Andrea Dukeshire of Calgary, Alberta for her project "Stability of Tops", the intermediate to Eugene Savchenko of Ottawa, Omtario for his project "3D Scanner" and the junior to Anthony Chiarelli of the St. Teresa of Avila School in Hamilton, Ontario for his project "Steganography... You Can Look but You Can't See". A number of colleagues from the University of Saskatchewan served as judges: James Brooke, Bjorn Friberg, Franz-Viktor Kuhlman, Salma Kuhlman, John Stephenson and Keith Taylor.

I have completed my term as Chair of the Committee and I am pleased to hand over the responsibility to Richard Caron of the University of Windsor with best wishes for a successful term.

Electronic Services Committee Report

Jason I. Brown (Dalhousie), Chair

David Rodgers (Michigan)
Peter Borwein (Simon Fraser)
Jacques Carette (Waterloo Maple)

Tomasz Kaczynski (Sherbrooke) Eric Woolgar (Alberta) Jonathan Borwein (Simon Fraser)

This year the Electronic Services Committee (ESC) of the Canadian Mathematical Society has provided input on the substantial redesign of the Camel web site. A historical component has been added to the site, as well as the ability to handle committee nominations. Other main changes have been to the infrastructure, including the move to a new server. Spam filtering is a priority for 2003. The status of online advertisements and sponsorship are currently under review. The issue of online security and digital certificates for secure transactions is under the advisement of the Camel Manager. The ESC appreciates the ongoing excellent work of both the Camel Manager (Alan Kelm), his staff, and the Director of Electronic Products and Services (Graham Wright).

The standardization of the CMS logo both for print and online usage was raised. The committee gave its recommendations on what format should be used on the camel web site.

Unfortunately, it seems that there may be little to salvage for the Society from the APuRL project, but the Camel Manager is looking into the possibility of incorporating some of the modules, provided adequate documentation can be received.

The TEX Office (to be called the Publications Office effective January 1, 2003) will take over responsibility for the Digital Editorship. The Committee hopes that the transition will be a smooth and beneficial one for the Society. The ESC would like to thank Loki Jorgenson for his service as the Digital Editor over the past several years. The CTAN mirror site on Camel is very popular, as always. There will be a number of items that will arise for online publications, including the use of MathML, and the advice of the Publications Office will be crucial in any decisions. The ESC extends its appreciation to Michael Doob for his work as TEX Editor, and its best wishes to Craig Platt, who is assuming the position of Technical Editor in January 2003.

My term as Chair of the ESC ends on December 31, 2002. I would like to express my appreciation to Edgar Goodaire, Past-Chair of the Committee, to the other members of the ESC (David Rodgers, Gail Wolkowicz, Laurent Marcoux, Peter and Jonathan Borwein, Christiane Rousseau, Eric Woolgar), and to Alan Kelm and Graham Wright. It was a pleasure working with all of you, and I wish David Rodgers a successful and productive term as the incoming Chair. The committee is in excellent hands!

Endowment Grants Committee Report

Kathryn Hare, (Waterloo) Chair

Karl Dilcher (Dalhousie) Lisa C. Jeffrey (Toronto) Thomas J. Ransford (Laval) James G. Timourian (Alberta)

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 the broader good of the mathematical community.

The committee was allotted \$40,000 for the 2002 Competition. Seven applications were received. Four of these were funded and a total of \$23,000 was awarded. All applicants have been notified by the Executive Office in Ottawa.

The successful applications included a conference for women graduate students, a project supporting junior faculty, a project supporting secondary school teachers in Atlantic Canada, and science fairs in British Columbia. The details of the successful applications can be viewed on the CMS web site (www.cms.math.ca/Grants/EGC/). Reports on projects funded in the past can also be found there.

Because of the poor performance of the stock market over the last few years we anticipate that the money available for next year's competition will be significantly reduced. However, it was decided at the December Meeting of the CMS Board of Directors, that there will be a competition in 2003, and that the \$17,000 unspent from this year's competition will be available for distribution next year.

It was also agreed to use a portion of the Endowment Fund to support several special projects of the CMS, including the "Math in Moscow" program and the Canadian School Mathematics Forum which will take place in Montréal in May, 2003.

During the year, a review of the Endowment Grants Competition program was carried out by James Timourian (Alberta) and the CMS Executive Committee and this led to some fine tuning in our procedures.

Finance Committee Report

Michael Lamoureux (Calgary) Chair

Tim Appelt (Structured Analytics)
David Bates (Maritime Life)
Jon Borwein (Simon Fraser)
Ian Goulden (Waterloo)

Akbar Rhemtula (Alberta) Christiane Rousseau (Montreal) Arthur Sherk (Toronto) Graham Wright (Ottawa)

The Finance Committee includes among its members the Treasurer, the Executive Director, the President, and the Past-President or the President-Elect. The Committee is responsible for the overall financial activities of the Canadian Mathematical Society, including the annual budget and the Restricted Investment Funds — the Endowment Fund, the Mathematical Olympiad Fund and the Designated Activities Fund. The Committee meets twice a year, in April and October, to discuss the Budget and make recommendations on financial matters to the Executive Committee and the Board of Directors. The Treasurer's Report provides details of the 2002 financial year and the 2003 Budget.

Ian Goulden completed his term in 2002; a new member Dr. Murray Bremner (Saskatchewan) will be joining the Committee in 2003.

The Society's Restricted Investment Funds continue to be managed by Toronto Dominion Quantitative Capital, wholly in indexed funds. Thus, for example, no decisions on individual equities are required. Instead, only the mix between funds is considered periodically. After a decision in 2001 to change the asset mix to 40% Bonds, 10% Canadian Equities and 50% Global Equities, an evaluation of the performance of the fund was made, and a recommendation made to maintain the mix for the current Period.

Proceeds from this Fund are use to finance certain activities of the Society, including the Endowment Grants Competition. The Society has been greatly helped in discussions concerning the maintenance and use of the Fund by our two consultants, Tim Appelt and David Bates, as well as the staff at TDQC.

Serious consideration is being given to undertaking a major fund raising effort to significantly increase the size of the Endowment Fund. This might allow us to do such things as endow the major prizes of the CMS. At this time, preliminary work is being done on the feasibility of such an undertaking.

Taking into account the current market situation and special CMS projects that will be supported from the Endowment Fund for 2003, the Board of Directors, in consultation with the Finance and Endowment Grants Committee and the Executive Committee, decided that the 2003 Endowment Grants Competition should be funded from unused funds from the 2002 Competition and any returned funds from previous competitions.

International Affairs Committee Report

Cameron L. Stewart (Waterloo) Chair

Yuri Bahturin (Memorial) Malgorzata Dubiel (SFU) Bernard R. Hodgson (Laval) Kiky Kamran (McGill) Reg R.J. Kulperger (Western) Edwin A. Perkins (UBC) Samuel S.P. Shen (Alberta) Catherine Sulem (Toronto)

The primary concern of the International Affairs Committee in 2002 was the International Congress of Mathematicians at Beijing in August and events related to it.

The Committee chose the Canadian delegation for the 14th General Assembly of the International Mathematical Union held August 17-18 in Shanghai. The delegation consisted of Ken Davidson, Nassif Ghoussoub, Jacques Hurtubise, Christiane Rousseau and Cameron Stewart. George Elliott, the alternate delegate for Canada, was not present in Shanghai. Canada had nominated John Friedlander for a position as a member of the Executive Committee of the IMU and he appeared on the approved slate of seven candidates of whom five were to be elected. Two others, Joram Lindenstrauss (Israel) and Vaughan Jones (USA/New Zealand) were nominated but were not on the approved slate. In the election John Friedlander and Claudio Procesi (Italy) were not chosen. The following five individuals were elected: Andrey Bolibruch (Russia), Martin Grötschel (Germany), Zhi-Ming Ma (China), Ragni Piene (Norway) and Madabusi Raghunathan (India). The balance of the Executive Committee for 2003-2006 consists of the President John Ball (United Kingdom), Vice-Presidents Jean-Michel Bismut (France) and Masaki Kashiwara (Japan) and the Secretary Phillip A. Griffiths (USA).

Bernard Hodgson was re-appointed as Secretary General of the International Commission on Mathematical Instruction. Jonathan Borwein, a continuing member of the Committee on Electronic Information and Communication, is now Chair of this Committee. They remain the only Canadians on major committees of the IMU.

With the help of Graham Wright, Christiane Rousseau, Jonathan Borwein, and the institutes, the CMS organized a reception at the Canadian Embassy in Beijing on August 21 to honour the winners of the Fields Medals and the Nevanlinna Prize. This proved to be a very challenging undertaking but I am happy to report that about 90 attended the event and it was a considerable success. The reception was jointly sponsored by the CMS, the CRM, The Fields Institute, and PIMS.

The Committee is considering ways to obtain a better representation of Canadian speakers at each ICM as well as increase Canadian participation on the major committees of the IMU.

Mathematical Competitions Committee Report

Peter Cass (UWO, Chair

Yin Chen (Lakehead)

Mathieu Dufour (UQAM)

Daryl Tingley (UNB Fred.)

Edward Barbeau (Toronto)

George Bluman (UBC)

Peter Crippin (Waterloo)

Richard Nowakowski (Dalhousie)

Bill Sands (Calgary)

Terry Visentin (Winnipeg)

Graham Wright (Ottawa)

Asian Pacific Mathematics Olympiad

Bill Sands (Calgary) Chair

Richard Hoshino (Dalhousie)

Andy Liu (Alberta)

Christopher Small (Waterloo)

Edward Wang (Wilfrid Laurier)

Correspondence Programme

Edward Barbeau (Toronto) Coordinator

Canadian Open Mathematics Challenge

Peter Crippen (Waterloo) Chair

Daryl Tingley (UNB)

Ian VanderBurgh (Waterloo)

Canadian Mathematical Olympiad

Terry Visentin (Winnipeg) Chair

Jeff Babb (Winnipeg)

Robert Craigen (Manitoba)

James Currie (Winnipeg)

Robert Dawson (St. Mary's)

J. Chris Fisher (Regina)

Rolland Gaudet (Coll. Univ. Saint-Boniface)

Luis Goddyn (Simon Fraser)

J. P. Grossman (MIT)

Kirill Kopotun (Manitoba)

Ortrud Oellermann (Winnipeg)

Felix Recio (Toronto)

Naoki Sato (William M. Mercer)

Daryl Tingley (UNB Fred.)

International Mathematical Olympiad

Bill Sands (Calgary) Chair

Richard Nowakowski (Dalhousie)

Christopher Small (Waterloo)

Arthur Baragar (Nevada-Las Vegas)

Edward Barbeau (Toronto)

Peter Cass (Western)

Andy Liu (Alberta)

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 Asian Pacific Mathematics Olympiad (APMO) and the International Mathematical Olympiad (IMO). Other activities of the MCC include the Mathematical Olympiads' Correspondence Program, and the National and Regional Mathematics Camps. At the 2002 CMS Winter Meeting, the Board of Directors, acting on a recommendation of the

Executive Committee, approved the idea of appointing a "Math Camps Coordinator" who would be, ex officio, a member of the Education Committee and the Mathematical Competitions Committee. Terms of Reference for such a position are being developed and it is hoped that a Math Camps Coordinator will be named shortly. After such an appointment is made, the MCC will be relieved of direct responsibility for these math camps.

Much of the work of the MCC is done by the four sub-committees and the Correspondence Program 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/).

The Canadian Mathematical Olympiad

The 34th Canadian Mathematical Olympiad (CMO) was held on March 27th, 2002. There were 80 competitors from 47 schools in eight provinces. The top three students were:

- Tianyi (David) Han, Woburn Collegiate Institute, ON (First Prize: The Sun Life Cup, \$2000, and book prizes.)
- Roger Mong, Don Mills Collegiate Institute, ON (Second Prize: \$1500 and book prizes.)
- Paul Cheng, West Vancouver Secondary School, BC (Third Prize: \$1000 and book prizes.)

A detailed report on the 2002 CMO, including the exam paper, solutions to the problems, and graders' reports is available at: www.cms.math.ca/Competitions/CM0/

The Asian Pacific Mathematics Olympiad

The 2002 Asian Pacific Mathematics Olympiad (APMO) was written in March.

As reported in the 2001 CMS Annual Report of the Mathematical Competitions Committee, there were problems of security with the 2001 APMO (Colombia was the coordinating country for the 2001 APMO. Canada, taking over for a three year term, was the coordinating country for the 2002 APMO.) For example, some of the problems were posted on an internet site before some countries had written the paper. Consequently, the results for the 2001 APMO were nullified. For the 2002 APMO some changes to procedure were recommended and implemented. This included a shorter period in which the contest could be written, from a week to three days. Nevertheless, there were similar security problems with the 2002 APMO. Consequently, the results were again nullified.

At a meeting in Glasgow during the 2002 IMO, which involved the APMO participating countries, it was agreed that, in future, the APMO would be held in the afternoon of one day on one side of the date line and in the morning of the next day on the other side of the date-line. The two times would be arranged so that they would be as close together as reasonably possible. Further, at the meeting in Glasgow, those responsible for the administration of the APMO in the various countries were warned that future irregularities would incur consequences.

The results from the 2002 APMO for the Canadian students were compiled and were one of the factors in selecting the

2002 Canadian IMO team.

Discussion is underway to include Kazakhstan among the countries participating in the APMO.

Further details about the APMO are available at: www.cms.math.ca/Competions/APMO/

The International Mathematical Olympiad

The 43rd International Mathematical Olympiad was held in Glasgow, U.K. July 19-30, 2002. The Canadian team placed 12th out of 84 participating countries with a team score of 142 (maximum 252). The members of the Canadian team and their results were:

- Robert Barrington-Leigh, Old Scona Academic High School, Edmonton – Bronze
- Olena Bormashenko, Don Mills Collegiate Institute, Toronto – Silver
- Alexander Fink, Queen Elizabeth High School, Calgary – Silver
- Ralph Furmaniak, John Paul II Secondary School, London – Honourable Mention
- Tianyi (David) Han, Woburn Collegiate Institute, Toronto – Silver
- Roger Mong, Don Mills Collegiate Institute, Toronto – Gold

The 2002 team was accompanied by Arthur Baragar (University of Nevada) Leader; Naoki Sato (Toronto) Deputy Leader; Bill Sands (University of Calgary) Leader Observer; Robert Morewood (Burnaby South Secondary School) Deputy Leader Observer.

The Canadian results for the 2002 IMO were outstanding and could be regarded as Canada's best ever showing.

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

IMO Training Camps

Two training camps are held each year to prepare students for the annual IMO. The CMS Winter Training Camp, held in January, is used to begin the training for the IMO and to let the team leaders meet those students who have a good chance of making the IMO team. The CMS Summer IMO Training Camp is used for intensive training of the actual IMO team. To avoid confusion with the Society's other math camps, the MCC agreed that the IMO Training Camps be renamed "The Winter Training Seminar" and

"The Summer IMO Training Seminar." Certificates of Participation will be given to each student who attends these seminars.

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 and/or have ambitions to compete in Mathematical Olympiads. Dr. Edward Barbeau has been Coordinator of this programme for many years. There were more students participating this year than in the past. 37 wrote the summer set of problems and 45-50 wrote the winter set. About 10 sets of problems have been made up for future use. The availability of material in French is an issue. The Mathematical Competitions Committee discussed this at its meeting at the 2002 CMS Winter Meeting. Edward Barbeau and Matthieu Dufour have undertaken to address this issue.

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

ESSO/CMS Math Camps

As reported above, the National and Regional Math Camps program will eventually be the responsibility of a new "Math Camps Coordinator."

The Imperial Oil Charitable Foundation has generously been the Title Sponsor for these camps since 1999, and has agreed to increase its support for 2003 to 2005.

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 camp is by invitation only. In 2003, students from grades 8 to 10 will be invited. The initial selection (about 10 students) will be made from the results in the Canadian Open Mathematics Challenge. Other students (about 15) will be selected based on the Galois Contest. Other contest information, and recommendations from Regional Math Camp directors will also be considered. Normally at most two students from a particular school will be invited.

During June 15-22, 2002 the fifth annual CMS National

Math Camp took place at Huron College (on the Campus of The University of Western Ontario). The camp was organized and run by Tom Griffiths, Marlene Griffiths, and Richard Hoshino.

In addition to the National Math Camp, Regional Math Camps were held at the following universities:

University of Regina, The University of New Brunswick, University of Prince Edward Island, Sir Wilfred Grenfell College, Collège Jean-de Brébeuf, Simon Fraser University, Dalhousie University, University of Ottawa, University of Western Ontario, Brock University, University of Alberta, University of Manitoba.

The format and length of these camps varied considerably: from 2 day non-residential to 6 day residential camps.

All of these institutions (the University of Alberta alternates with the University of Calgary) together with possibly a new camp in Québec, plan to hold camps in 2003. This attests to the considerable success of this venture.

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

The Canadian Open Mathematics Challenge (COMC)

The COMC is a contest written every year at the end of November. The COMC 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. Almost 6000 students from all across Canada and abroad wrote the 2002 COMC.

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

Thanks

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

Anthony Lau (Alberta), Chair

Line Baribeau (Laval) Jonathan M. Borwein (SFU) Bradd T. Hart (McMaster)

Claude Laflamme (Calgary)
Barry R. Monson (UNB – Fredericton)
Christiane Rousseau (Montreal)

The Nominating Committee for the Year 2002 has been very busy filling chairs and memberships of various committees including:

- Human Rights Officer
- Endowment Grants Committee
- Finance Committee
- International Affairs Committee
- Research Committee
- Committee on Women in Mathematics
- Mathematics Competitions Committee
- Advancement of Mathematics Committee
- Education Committee

For the 2003 Election of the Canadian Mathematical Society, the Committee has nominated a candidate for President and four candidates for Vice-Presidents. We are now in the process of completing the slate for members of the Board of Directors for the four regions in Canada and for the member at large. The Committee has also nominated the student representatives on the Board of Directors as well as approved the members of the Student Committee.

The Committee has worked hard to maintain regional balance for various committees.

Publications Committee Report

Keith Taylor (Saskatchewan), Chair

Edgar Goodaire (Memorial) Peter Hoffman (Waterloo) Michael Bennett (UBC) Man-Duen Choi (Toronto) Dana Schlomiuk (Montréal)

The Publications Committee oversees the publishing activities of the Society. The publications of the Society together with the respective editors-in-chief for 2002 were:

- The Canadian Journal of Mathematics (Henri Darmon and Niky Kamran)
- The Canadian Mathematical Bulletin (James Lewis, Arturo Pianzola and Noriko Yui)
- Crux Mathematicorum with Mathematical Mayhem (Bruce Shawyer)
- CMS Book Series (Jonathan Borwein and Peter Borwein)
- CMS Tracts in Mathematics (Kenneth Davidson and Cameron Stewart),
- CMS Notes (Peter Fillmore and Srivinasta Swaminathan)
- A Taste of Mathematics (A. Thompson).

The G. de B. Robinson Prize is awarded each year for an outstanding article published in one of the Society's two research journals. In even numbered years, the prize is awarded for an article published in the Journal and in odd numbered years, for an article published in the Bulletin. The 2002 Prize was awarded to Ted Chinburg (Pennsylvania); Manfred Kolste (McMaster); Victor Snaith (Southampton), *Comparison of K-theory Galois module structure invariants*. Canad. J. Math. 52 (2000), No. 1, 47-91.

The following editorial appointments were recommended by the Committee and approved by the Board of Directors:

- Scientific Editorial Board for the CJM and CMB: Walter Craig (McMaster);
- Publications Office: Craig Platt (Manitoba)
 as Technical Editor, Michael Doob (Manitoba)
 as Technical Consultant, and Srinivasa Swaminathan
 (Dalhousie) as Associate Technical Editor;
- CMS Notes: Robert Dawson (St. Mary's) and Srinivasa Swaminathan (Dalhousie) as Editors-in-Chief:
- Crux Mathematicorum with Mathematical Mayhem Board: Jim Totten (University College of the Cariboo) as Editor-in-Chief, Bruce Crofoot (University College of the Cariboo) as Associate Editor, and Rick Brewster as Problem Editors;
- ATOM (A Taste of Mathematics): B. Shawyer (Memorial) was named Editor-in-Chief effective January 1, 2003.

My term finishes at the end of 2002 and Dana Schlomiuk (Montreal) will be taking over as Chair of the Publications Committee from January 1, 2003.

Research Committee Report

Douglas Stinson (Waterloo), Chair

Hermann Brunner (Memorial) Henri Darmon (McGill) Finnur Larusson (Western) James A.Mingo (Queen's) Gordon D. Slade (UBC) Catherin Sulem (Toronto)

The 2002 Summer Meeting of the CMS was held in Quebec City. The meeting was hosted by Laval University with Claude Levesque as the Meeting Director and Jean-Pierre Carmichael as Chair, Local Arrangements. There were 14 sessions as described below and a Contributed Paper Sessions organized by the Meeting Director.

Analysis

(Organizer: T. Ransford, Laval University)

Arithmetic Algebraic Geometry

(Organizers: Kumar Murty and P. Sastry, University of

Toronto)

Associative Algebras

(Organizers: I Assem, University of Sherbrooke, and F. Huard, Bishop's University)

Category Theory

(Organizer: R. Paré, Dalhousie University)

Combinatorics

(Organizers: C. Chauve, UQAM, S. Corteel, CNRS and UQAM, and P. Leroux, UQAM)

Cryptography

(Organizers: D. Stinson, University of Waterloo, and H. Williams, University of Calgary)

Differential Geometry

(Organizer: J. Chen, University of British Columbia)

Dynamical Systems

(Organizer: Michael Radin, RIT)

Graph Theory

(Organizer: Brian. Alspach, University of Regina)

Mathematical Education: The teaching and learning of geometry: why, what, how.

(Organizers: F. Gourdeau and B.R. Hodgson, Laval University)

Mathematics of Finance

(Organizer: Hassan Manouzi, Laval University)

Number Theory

(Organizers: A. Akbary and O. Kihel, University of Lethbridge)

Probability Theory

(Organizers: D. Dawson, Carleton University and G. Slade, University of British Columbia)

Universal Algebra

(Organizers: J. Hyndman and S. Wismath, University of Lethbridge)

The CMS 2002 Jeffery-Williams Prize Lecture was given by Edwin Perkins (University of British Columbia.) and the CMS 2002 Krieger-Nelson Prize Lecture was given by Priscilla Greenwood (University of British Columbia and Arizona State University).

The plenary speakers were:

- David W. Henderson (Cornell University)
- Nikolai Nikolski (University of Bordeaux 1, Steklov Inst.)
- Christophe Reutenauer
 (Université du Québec à Montréal)
- Paul D. Seymour (Princeton University)
- Isadore M. Singer (MIT)

Robert P. Langlands (IAS) received an honoris causa doctorate from Laval University during the meeting.

The 2002 Winter Meeting of the CMS was held in Ottawa and was hosted by the University of Ottawa. Dr. Daniel Daigle was the Meeting Director and Walter Burgess and André Dabrowski were in charge of Local Arrangements. In addition to a Contributed Paper Session organized by Walter Burgess, the sessions were as follows:

Financial Mathematics

(Organizer: Luis Seco, University of Toronto)

Finite Elements

(Organizer: Roger Pierre, Laval University)

History of Mathematics

(Organizers: Richard O'Lander and Ronald Sklar, Saint Johns University N.Y.)

Lie Algebras and Moonshine

(Organizers: Abdellah Sebbar and Erhard Neher, University of Ottawa)

Mathematical Education: Now I See !!!! Dynamic Visualisations in Canadian Mathematics Education

(Organizer: Thomas Steinke, OCCDSB)

Number Theory

(Organizers: Damien Roy, University of Ottawa, and Kenneth Williams, Carleton University)

Operator Algebras

(Organizers: Thierry Giordano, and David Handelman, University of Ottawa)

Partial Differential Equations

(Organizers: Victor Ivrii, University of Toronto, and John Toth, McGill University)

"Real-World" Problems in Search of Solutions

(Organizer: André Dabrowski, University of Ottawa)

Representation Theory of Real and p-adic Groups

(Organizers: Jason Levy and Monica Nevins, University of Ottawa)

Symplectic Geometry

(Organizers: Lisa Jeffrey and Eckard Meinrenken, University of Toronto)

Theory and Applications of Point Processes

(Organizers: Gail Ivanoff and David McDonald, University of Ottawa)

The CMS 2002 Coxeter-James Prize Lecture was given by Lisa Jeffrey (University of Toronto) and the CMS 2002 Doctoral Prize Lecture was given by David Kerr (University of Tokyo and University of Rome).

The plenary speakers were:

- James Arthur (University of Toronto)
- Rene Carmona (Princeton University)
- Victor Guillemin (MIT)
- Maciej Zworski (Berkeley)

The next four meetings of the CMS will be held in Edmonton (University of Alberta, Summer 2003), Vancouver (Simon Fraser University, Winter 2003), Halifax (Dalhousie University, Summer 2004) and Montreal (McGill University, Winter 2004).

The Research Committee chose Jingyi Chen (UBC) as the 2003 Coxeter-James Prize Lecturer for the CMS Winter 2003 Meeting, and Joel Feldman (UBC) as the 2004 Jeffery-Williams Prize Lecturer for the CMS Summer 2004 Meeting.

The Committee recommended, and this was passed by the CMS Board of Directors, that the eligibility rules for the Coxeter-James Prize Lecture be amended to require that the winner should be no more than 10 years past his or her PhD at the time when the prize selection is made.

The Research Committee passed the following motion, which is being submitted to the CMS Executive Committee and the Board of Directors for their consideration:

"That the terms of reference for the Jeffery-Williams, Coxeter-James and Krieger-Nelson prize lectureships be revised to require that the winner be a member of the Canadian mathematical community".

The intention of this motion is that winners need not be "in Canada", but should have a clear and real connection to the Canadian research community. This also would create a uniform requirement for the three prize lectureships.

Student Committee Report

Susan Cooper (Queen's) and Robert Juricevic (Waterloo), Co-Chairs

Joy Ambramson (York)
Andy Culham (Calgary)
Renato Dedic (Bishops)
Ana Duff (York)

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Youness Lamzouri (Montreal)

David I. Morgan (Alberta)
Daniel G. Piché (Winnipeg)
Boris Reitman (Vancouver)
Lindsey Shorser (Toronto)
Robert E. Woodrow (Calgary)
Graham P. Wright (Ottawa)

This is the fourth annual report of the Student Committee (Stude). Although there are other committees, such as Education, Advancement of Math, etc., which are related to student issues, Stude plays a direct role in issues regarding students. 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

Studc underwent its second change in membership. As part of this change, Studc experienced its first change in chairs. We take this moment to thank Dan Piché, founder and past chair of the Student Committee, for all his hard work. Dan's enthusiasm is what made Studc the successful Committee it is today. Dan's CMS legacy will be his work with the CUMC, Studc, and his work as a student representative on the CMS Board of Directors. Dan will stay on our committee until June 2003 in order to ease transition.

The Student Committee is now being co-chaired by Susan Cooper and Robert Juricevic.

We thank all past members, in particular Andy Culham who organized a fantastic CUMC last spring, David Morgan and Benoit Charbonneau for continuing to help us. We have 1 vacancy to fill at present and we will have 3 additional vacancies to fill this June, namely for Renato, Dan, and Boris.

Operations Manual for the Student Committee

Dan Piché is working on an operations manual for the Committee. This manual will describe the Student Committee activities so that each transition of membership will go smoothly.

Student Newsletter

Our newsletter editor, Antoine Khalil, is working on the October 2002 and March 2003 newsletters. Antoine's first newsletter, the October 2002 newsletter, has not yet been published. It will be modified by Antoine in order to include our comments from this past CMS Winter meeting in Ottawa. The October 2002 newsletter will be distributed in January 2003.

Graduate Student Events

Stude organized a social event for graduate students at each of the CMS meetings in 2002. The events were well attended and enjoyed. The Committee plans to continue to organize these events. Susan and Robert will be organizing the next event in Edmonton.

Regional Conferences

The goal of this project is to financially support 4 student activities (one in each of the 4 regions across Canada). In 2002 we supported two regional conferences: the IAM-CSC-PIMS Undergraduate Math Modelling Workshop and the APICS conference. An amount of \$150 was given to each group. The Committee hopes to support 4 events in 2003. Youness Lamzouri will be looking after these affairs.

Promotional Poster

Renato Dedic will begin work on a Stude promotional poster. He has been working with Judith MacDonald and Harley Weston on a poster project on careers in mathematics – "Mathematics with a Human Face".

Examples can be found at http://mathcentral.uregina.ca/
HumanFace/careers/quilt/. Renato clarifies that the goal was and still is to find as many people (mathematicians) as possible who would be willing to add their profile to the page, in particular recent math graduates.

Maintaining a Student Web Site (www.cms.math.ca/Students/)

Boris Reitman worked with Andy Culham, the past CUMC organizer, to enable CUMC participants to register and submit their abstracts via the CUMC webpage. He did a masterful job and plans to work with Joy Abramson this spring for CUMC 2003. Furthermore, he will be actively working to update our Stude Website.

CUMC

The Student Committee again provided funding for the CUMC. \$1,000 was given towards the organizing of CUMC 2002. CUMC 2002 was held at the University of Calgary from July 2 to July 7. The conference was well attended. Photos of the conference can be seen on our website.

Dan Piché, Benoit Charbonneau, and the CUMC 2002 Committee developed an operations manual for CUMC organizers. This manual will assist future CUMC organizers. We hope that the CUMC operations manual will aid in the continuity of the CUMC.

CUMC 2003 will be held May 27 to June 1 at York University (see www.cumc.math.ca). CUMC 2003 will be the 10th anniversary of CUMC!

Women in Mathematics Committee Report

Malgorzata Dubiel (Simon Fraser), Chair

George Bluman (UBC) Chantal David (Concordia) Leah Edelstein-Keshet (UBC)

Neal Madras (York) Dorette Pronk (Dalhousie)

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

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 mathematical sciences. The Directory is a valuable source for information about Canadian women mathematicians.

The committee initiated discussions with the CMS Student Committee on the issues of concern for women graduate students in the mathematical sciences across Canada. One result of these talks was an idea of a conference which would bring the students and women faculty together, to address these issues and initiate networking and mentoring connections.

The conference will take place from June 12th to 13th, immediately prior to the CMS 2003 Summer Meeting. The Department of Mathematical and Statistical Sciences, University of Alberta is the host for this meeting which is also supported by the Pacific Institute for the Mathematical Sciences and Simon Fraser University. Plenary talks will be given by Priscilla Greenwood and Christiane Rousseau.

I wish to thank Neal Madras (York) who ended his term on the Committee in December 2002 and to welcome Mateja Sajna (Ottawa) who will join the Committee in January 2003.

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