

Jonathan Borwein: Curriculum Vitae

Jonathan M. Borwein*

May 16, 2012

1 Personal information

Name: Jonathan Michael Borwein

Date of Birth: May 20, 1951

Place of Birth: St. Andrews, Scotland

Citizenship: Canadian and British

Marital Status: Married (three children)

Work address & other data Room 120, Mathematics V, School of Mathematical and Physical Sciences, University of Newcastle, Callaghan, NSW 2308, Australia

URL: <http://www.carma.newcastle.edu.au/~jb616>

2 Academic information, Prizes and Awards

Degrees Obtained:

B.A. (Honours Math) 1971, University of Western Ontario

M. Sc. 1972, Oxford University (Jesus College)

D. Phil. 1974, Oxford University (Jesus College)

Areas of Research: Optimization, Functional Analysis, Analysis, Number Theory, Computation and Collaboration

Title of M. Sc. Thesis: Monotone Operators and Non-Linear Functional Analysis

Title of D. Phil. Thesis: Optimization with Respect to Partial Orderings

Scholarships, Prizes and Awards:

Timkins International Fund Scholarship 1968

Albert O. Jeffrey Scholarship 1969

Kingston Gold Medal for Honours Mathematics 1971

U.W.O. Faculty Association Scholarship 1971

Ontario Rhodes Scholarship (Jesus College) 1971–74

Coxeter-James Prize Lecture (Canadian Mathematical Society) 1987

APICS/Fraser Medal for Research Excellence 1988

[Atlantic Provinces Council on the Sciences Medal for Outstanding Achievement in Natural or Applied Science: for scientists under 40 working at any organization in Atlantic Canada]

Chauvenet Prize of the Mathematical Association of America 1993

for the “outstanding survey or expository mathematics paper” published in a North American Journal: J.M. Borwein, P.B. Borwein, and D.H. Bailey, “Ramanujan, modular equations and pi or how to compute a billion digits of pi,” *MAA Monthly*, **96** (1989), 201–219

Merten M. Hasse Prize Mathematical Association of America 1993

for a “noteworthy expository paper in an Association Journal one of whose authors is younger than forty” for J.M. Borwein, P.B. Borwein, and D.H. Bailey, “Ramanujan, modular equations and pi...”

Fellow of the Royal Society of Canada (Academy of Science), elected 1994

*University of Newcastle, Australia. Email: jonathan.borwein@newcastle.edu.au.

British Columbia/CUFA Academic of the Year 1996
 BC Confederation of University Faculty Associations, jointly with P. Borwein

Doctorat Honoris Causa University of Limoges, September 22, 1999
 and accompanying AMS-CMS Proceedings on *Constructive, Experimental and Nonlinear Analysis*, Michel Thera ed., AMS, 2000, 289 pp., Softcover, ISBN 0-8218-2167-9

National Alumni Award of Merit University of Western Ontario (Western Family Citation) October 1, 1999

HPL/MSRI Special Visiting Professor Hewlett Packard, MSRI and Lawrence Berkeley (declined) Spring 2001

Fellow of the American Association for the Advancement of Science (AAAS), elected Sept 2001
 “A Member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished may, by virtue of such meritorious contributions, be elected a Fellow by the Council.”

Identified as one of “**25 Power Thinkers. Some of B.C.’s best and brightest.**” BC Business, June 2002.

Highly Cited Researchers Database (ISI)
<http://isihighlycited.com>, March 2003
 As one of the roughly 200 most cited mathematicians of period 1980-1999 (only Canadian)

Foreign Member Bulgarian Academy of Sciences, elected July 2003

Maclaurin Fellowship, New Zealand Institute of Mathematics and its Applications (NZ-IMA), February 2005
 (deferred)

Listed in Marquis *Who’s Who in the World*; various other listings. 2005

ISI Hot Paper in Math, “Maximal Monotonicity via Convex Analysis,” *J. Conv. Anal.* **13**, (2006), 561–586. May 2008
<http://sciencewatch.com/sciencewatch/dr/nhp/2008/08maynhp/08maynhpBorwein/>

Apple Consulting Scientist, appointed February 2009

Fellow of the Australian Academy of Science, elected March 2010
 “[F]or experimental mathematics in a number of disciplines including optimisation, number and computation theory.”

JonFest 2011, *Computational and Analytical Mathematics Conference* in honor of JMB’s 60th birthday, IRMACS. May 16–20 2011.

JonFest Down Under 2011, *Computational and Analytical Mathematics Conference* in honor of JMB’s 60th birthday, CARMA Nov 29-Dec 1 2011.

Outstanding Academic Title for 2011, for *Convex Functions*, by the American Library Association academic library book review journal “Choice”: <http://www.ala.org/acrl/choice/currentissue#oat>.

3 Academic positions held

1974–75 Post Doctoral Fellow, Dalhousie
1975–76 Lecturer and Research Associate, Dalhousie
1976–80 Assistant Professor, Dalhousie
1980–82 Associate Professor with Tenure (On Leave), Dalhousie
1980–81 Assistant Professor, Carnegie-Mellon University
1981–82 Associate Professor, Carnegie-Mellon University
1982–84 Associate Professor, Dalhousie University
1984/03–1993 Full Professor, Dalhousie University
1985 (3/1-7/31) French National Fellowship, Limoges, Prof Invité
1986 (1/1-7/31) Distinguished Visiting Professor, Centre de Recherches Mathématiques, University of Montreal

1987–88 Senior Killam Fellow, Dalhousie University
1988 (6/1-9/30) Australian Research Grant Council Fellowship, ANU/Newcastle (offered for year)
1990 (5/1-6/30) Visitor at Technion (during term of specialization on Nonlinear Analysis)
1991 (4/1-5/30) French National Fellowship, Limoges, Prof Invité
1991–93 Professor, Dept of Combinatorics and Optimization, Waterloo on leave from Dalhousie.
1993/06–98/09 Shrum Professor of Science, Department of Mathematics and Statistics, Simon Fraser University
1993–96 Adjunct Professor, Department of Mathematics, Statistics and Computing, Dalhousie
1994–2006 Associate Member, School of Computer Science, Simon Fraser University
1994–2000 Member, Institute for Applied Algorithms & Optimization, Simon Fraser University
1997 Offered and ultimately declined position of Dean of Faculty of Mathematics, University of Waterloo, Ontario, Canada.
1998–2004 Gordon M. Shrum Professor of Science, Departments of Mathematics and Statistics, Simon Fraser University.
2001–03/12 Canada Research Chair in Information Technology at Simon Fraser University.
2002–03/11 Distinguished NewMIC Fellow, New Media Innovation Centre, Vancouver.
2004/01– Distinguished Research Adjunct Professor, Department of Mathematics, Simon Fraser University.
2004/01–2009/06 Research Professor, Faculty of Computer Science, Dalhousie University.
2004–2009 Canada Research Chair in Collaborative Technology at Dalhousie University.
2009– Laureate Professor, School of Mathematical and Physical Sciences, University of Newcastle, NSW, Australia.
2009/07–2014/06 Adjunct appointments at Dalhousie University, Canada in both the Faculty of Computer Science and the Department of Mathematics & Statistics.
2011– Distinguished Professor King Abdulaziz University, Jeddah.

3.1 Relevant professional activities (since 1984)

1984–88 Member, Board of the Canadian Mathematics Society
1985–88 Member, Research Committee of the CMS
1987–88 Chair, Constitution Revision Committee of the CMS
1988–91 Member, NSERC Mathematics Grant Selection Committee
1989–91 Chairman, NSERC Mathematics Grant Selection Committee
1989–93 Member, Steering Committee Centre for Mathematical Research, Montreal
1991 Member, Committee on the Presidential Appointment, Dalhousie
1991–93 Appraisals Committee, Ontario Council on Graduate Studies
1992–96 Member, NSERC Committee on Collaborative Research Initiatives
1992–96 MAA Panel of Visiting Lecturers
1992– Member, Simon Fraser Centre for System Science
1993–2002/06 Director, Simon Fraser Centre for Experimental and Constructive Mathematics
1994–98 British Columbia Rhodes Scholarship Selection Committee
1995–98 Member, CMS Electronic Services Committee
1995–99 Member, CMS Board
1995–97 Chair, CMS Electronic Services Committee
1995 Member, NSF Scientific Computing Research Environments for the Mathematical Sciences (SCREMS) Panel, April
1995–97 Member, Mathematics Liaison Committee with NSERC
1995–96 Co-chair Executive of the Pacific Institute for the Mathematical Sciences
1996–99 Steering Committee, Simon Fraser Centre for System Science
1996 Simon Fraser member SCBC/BCHRF Health Technology Assessment competition
1996–97 HPCnet (High Performance Computing) Executive Committee
1996–99 Academy of Science, Simon Fraser Representative, Royal Society of Canada
1997, 1998 Canadian Representative, NATO Advisory Panel on Collaborative Research Grants

1997– Member, Scientific Committee, FONDAP in Applied Mathematics (FMA), CONICYT (Chilean Science Foundation)

1997–2003 Member Advisory Board for the Canada Institute for Scientific and Technical Information (CISTI) of the National Research Council of Canada

1997–98 CMS Representative to Virtuoso, Industry Canada’s Virtual Centre for On-line Scholarly Publishing

1997– Canadian Computational Initiative (c3.ca) Executive Committee (1997–98); National Board (1998–2005).

1998–2000 Member, Royal Society of Canada’s Public Awareness of Science Committee.

1998 Chair, NATO Advisory Panel on Collaborative Research Grants

1998–2001 Selection Committee of the Royal Society for the McNeil Medal for the Public Awareness of Science.

1998–99 Dean of Science Search Committee, Simon Fraser University.

1998–02 Member, International Mathematical Union (IMU) Executive’s Committee on Electronic Information and Communication (CEIC); Deputy chair 2000–02.

1999, 2000 Member, NATO Physical Science & Engineering and Technology Panel

1999–00 President Elect Canadian Mathematical Society and CMS representative to AMS Council

1999–00 Presidential Search Committee, Simon Fraser University

April–May 2000 International Member, Review Panel, Mathematics and Statistics Department, University of Western Australia.

2000–02 President Canadian Mathematical Society; CMS representative to AMS Council and Fields Institute Board

2000– Member College of Reviewers, Canada Research Chairs (CRC) Program

2000– Founding Member, SFU Institute for Health Research and Education (IHRE)

2001–03 Chair, Advisory Board for the Canada Institute for Scientific and Technical Information (CISTI) of the National Research Council of Canada

2002–03 Past President Canadian Mathematical Society

2002–08 Chair, International Mathematical Union (IMU) Executive’s Committee on Electronic Information and Communication (CEIC)

2003 Dean of Science Search Committee, Simon Fraser University.

2003–05 Member, C3.ca Association Inc’s Long Range Plan Advisory Committee and Authors Panel.

2003–06 Member Board, C3.ca Association Inc.

2003–06 Member, RSoFC Committee on Freedom of Scholarship and Science.

2000–05 Member, WestGrid Executive Committee, Chair 2003-04. *Executive Member at Large* responsible for External Relations, 2004-05.

2004–05 Chair, CMS International Affairs Committee

2004–07/01 Mathematical Association of America Board of Governors, Governor at Large representing Canadians.

2004–07/06 Member, Killam Selection Committee.

2004–09 Associate Publisher, Books and Rich Media, Canadian Mathematical Society.

2004–07 Member, J.M. Synge Selection Committee, Royal Society of Canada.

2004–05 Member, Senate Disciplinary Committee, Dalhousie.

2004–05 Member, Math Awareness Month Committee (Math and the Cosmos), US Joint Policy Board.

2004– Member, Scientific Directorate, Atlantic Computational Excellence Network, ACEnet.

2005–06 Vice-Chair, Executive, C3.ca Association Inc. Interim Chair, March–May 2006.

2005– Advisory Board, International Centre for Excellence in Mathematical Education, Melbourne, Australia.

2005–2008 Member, Scientific Committee on Information Science Technologies, Europe-Canada, (IST-EC2) Scientific Committee.

2005–2008 Member Board of Trustees, World Mathematical Knowledge Management Interest Group.

2006–2007 Director, Atlantic Association for Research in the Mathematical Sciences (AARMS) (Starting Dec 1, 2005)

2006–2008 Member, Selection Committee, Canadian Science and Engineering Hall of Fame, (www.sciencetech.technomuses.ca).

2006–2009 Member, AMS Library Committee.

2006– Member, National Advisory Board of “Virtual Researcher on Call” (VROC).

2006–2009 Member, MAA Shortcourse Committee.

March 2006 Leader, Review Team, Mathematics Review, University of the West Indies, Mona Campus, Kingston Jamaica.

2006–07 Chair, Executive, C3.ca Association Inc.

2006–07 Member, Robbins Prize Committee, AMS.

2007–09 Member at Large, Academy III Council, RSC.

2007–08 Co-chair, AMS Library Committee.

2008– Member, University of Newcastle, ICT Review Committee.

2008–10 Member, SASTRA Ramanujan Prize selection Committee.

2009– Director, Centre for *Computer-assisted Mathematical Research and Applications* (CARMA), Priority Research Centre, University of Newcastle.

2009–2011 Member, Strategy and Services sub-committee of *Intersect: eResearch support and innovation for NSW*.

2009-2011 Member, University of Newcastle Advisory Group to Review Academic Research Computing (ARC) Group.

2009– Member, Executive of *ANZIAM*, and President ANZIAM Optimization Special Interest Group (SIGMAopt).

2009–2012 Ordinary Member, Council of the of *Australian Mathematical Society*.

2010– Chair, Australian Mathematical Sciences Institute (AMSI) Scientific Advisory Committee.

2010 Member, Research Evaluation Committee (MIC), Excellence in Research for Australia (ERA-10).

2011–12 Co-chair, AMS Library Committee.

2011–12 Chair, Christopher Heyde Medal Selection Committee, Australian Academy of Science.

2012 Member, Research Evaluation Committee (MIC), Excellence in Research for Australia (ERA-12).

3.2 Relevant industrial/research activities (since 1995)

1995–2002 Project Leader, *Multi-modal Mathematics Project* within the *Telelearning National Centre of Excellence* (TL–RN).

1996–2010 Co-founder and Member Board of Directors, *MathResources Inc.*, 5516 Spring Garden Road, Suite 203, Halifax N.S., B3J 1G6.

(<http://www.mathresources.com>) I am no longer affiliated with the company.

[A company building CD, web-based and hand-held computer interactive mathematical tools, texts and scientific databases]

1999–2008 *Symbolic Analysis Project* within the *Mathematics of Information Technology and Complex Systems National Centre of Excellence* (MITACS).

2000–2003 Director, *HPC@SFU* Simon Fraser High Performance Computer Installation (CFI).

2002-2004 Project Leader. Nato Collaborative Linkage Grant with France (M. Thera, co-PI) and Bulgaria (J. Revalski, co-PI) on monotone operators and applications.

2002-2005 Co-Project Leader, WestGrid (CFI)

2004-2005 Project Leader, Atlantic Gateway to Mathematics

www.cs.da.ca/agatemath

2004-2006 Co-Project Leader, User Controlled Light Paths for Advanced Visualization and Collaboration (CANARIE)

2004– Member Atlantic Computational Excellence Network Research Directorate (ACEnet) (www.ace-net.ca)

2006 External assessor, web-version NIST (US Dept of Commerce) Digital Library of Mathematical Functions.

2007 co-PI, National Cyber-Psychology Project, CFI funded.

Other major externally funded Research Projects involve HPC (funded by SUN, SGI CFI/KDF: I was Project leader for HPC@SFU (1.875 million (2001-2004)), for CoLab (500K, CFI 2002), co-PL for WestGrid (34 million, 2002-2005), advanced publishing research (ApuRL: \$75,000 from SSHRC 1999-20001, and Heritage Canada), co-Pi (Math Learning Object, 50K SSHRC INE, 2002), SFU-CoLab (\$490,000 from CFI, 2001) and medical imaging (SPECT with VGH). From 2004-2009 I was director of Ddrive www.cs.dal.ca/ddrive/ (500K, CFI 2004).

3.3 Editorial and related duties (since 1989)

1989-90 Consulting Editor for Mathematics, *The Guinness Encyclopedia*

1990-98 Editor, with P. Borwein, *CMS-Wiley Series of Monographs and Advanced Texts* s

1992-2008 Associate Editor, *Set-Valued Analysis*, Kluwer Academic Publishers

1992-94 Area Editor, *Dictionary of Theories* (Gale Research, June 1993; ISBN: 1873477058)

1993– Editorial Board, *Journal of Convex Analysis*, Heldermann-Verlag

1994-2007 Associate Editor, *ZOR: Mathematical Methods of Operations Research*

1994– Editorial Board, Honorary Editor, *Communications in Applied Nonlinear Analysis*

1995– Editorial Board, *Ramanujan Journal*

1996– Editorial Board, *Experimental Mathematics*

1997 Co-Editor, *MapleTech*, 4,1997, Special Issue on *Maple in the Mathematical Sciences*.

1997– Editorial Board, *Mathematical Inequalities and Applications (MIA)*

1998-2004 Editor, with P. Borwein, *Springer-Verlag Canadian Mathematical Society Books in Mathematics*

1998-2008 Editorial Board, *International Journal of Mathematics and Mathematical Sciences*

1998– Editorial Board, *International Journal of Nonlinear and Convex Analysis*

1998-2007 Editorial Board, *Proceedings of the American Mathematical Society*

1999– Editorial Board, *SIAM Problems and Solutions*

(Electronic: <http://www.siam.org/journals/problems/>)

1999– Editorial Board, *Journal of Inequalities in Pure and Applied Mathematics* (Electronic: <http://jipam.vu.edu.au/>)

2003– Editorial Board, *Fixed Point Theory and Applications*

2004-2006 Editor, with P. Kenderov, S. Simon, *Journal of Convex Analysis*, Fitzpatrick Memorial issues **13** nos. 3/4, June 2006.

2005-2006 Editor, with K. Dilcher, *Springer-Verlag Canadian Mathematical Society Books in Mathematics*

2005– Editorial Board, Atlantic Electronic Journal of Mathematics (aejm)

2006– Series Editor, with H. Holden, *Springer Undergraduate Series in Mathematics and Technology*.

2006– Member, International Council of the *Comptes rendus de l'Academie bulgare des sciences*.

2008– Associate Editor, *Set-Valued and Variational Analysis: Theory and Applications*, Kluwer Academic Publishers

2008– Editorial Board, *Monographs in Number Theory*, World Scientific Publishing Co.

2009– Editorial Board, *ANZIAM Journal*.

2010– Advisory Board, *Gazette of the Australian Mathematical Society*.

2010-2015 Editorial Board, *Notices of the Amer. Math. Soc.*

2010-2012 Editorial Board, *Annals of Functional Analysis (ATA)*.

2010– Editorial Board, *Fixed Point Theory and Related Topics (FPTT)*.

2011-2015 Editorial Board, *American Mathematical Monthly*.

2011 Editorial Advisory Board, *London Mathematical Society* <http://www.lms.ac.uk/publications/periodicals.html>. (Forced to resign by the publisher!)

2011– Editorial Board, *Journal of Optimization Theory and Applications*.

2011– Regular contributor to *the Conversation* <http://theconversation.edu.au/profiles/jon-borwein-101>.

2012– Invited blogger for the *the Huffington Post* <http://www.huffingtonpost.com/>.

3.4 Significant conference organization (outside CECM-DDRIVE-CARMA since 1993)

1993 Co-organizer, with A. Lewis, Workshop on Convexity, Monotonicity and Differentiability, Fields Institute, March 5–7.

1995 Member, International Scientific Advisory Committee for International Conference on Interaction between Order, Convexity and Model Theory in Analysis. North Ossetian State University, Vladikavkaz, Russia, June 1995.

1995 Co-organizer, with P. Borwein, Special Session on Experimental Mathematics, CMS Winter Meeting Simon Fraser, Dec. 9–11.

1995 Co-organizer, with P. Borwein, Workshop on Organic Mathematics, CECM and CRM, Simon Fraser, Dec. 12–14.

1996 Organizing Committee, SIAM Meeting on Optimization, Victoria, May 20–22.

1996 Organizing Committee, Fields Workshop on Homotopy Methods, SFU, May 23–25.

1997 Organizing Committee, Scholarly Communication in the Next Millennium, Simon Fraser (Harbour Centre), March 5–8.

1997 International Committee, IV Caribbean Conference on Approximation and Optimization, Caracas, March 17–21.

1998 Scientific Committee, Sixth Canadian Number Theory Conference, University of Manitoba, July.

1999 Co-organizer, Future of Mathematical Communication 1999, MSRI, Berkeley, December 1–5.

2000 Co-organizer, Multimedia Tools for Communicating Mathematics, (CMAF/UL), Lisbon, November 23–25, 2000.

2001 International Scientific Committee, Second International Conference on Nonlinear and Convex Analysis, Hirosaki City, Japan, July 28–Aug 1, 2001.

2001 Program Committee, First International Workshop on Mathematical Knowledge Management RISC Linz, Austria, September 24–26, 2001.

2002 Organizer, Fourth Annual Meeting and Workshop (*Managing the Digital Literature*) of the CEIC, Wosk Centre for Dialogue, February 15–17, 2002.

2002 Scientific Committee, ICM Satellite Meeting on (*Electronic Information and Communication*), Beijing, August 29–31, 2002.

2002 Scientific Committee, ICM (*CEIC Afternoon*), Beijing, August 26, 2002.

2003 Organizer, ICIAM 2003 Minisymposium on *Advanced Collaborative and Visualization Environments*, Sydney, July 7–11, 2003.

2004 Chair Scientific Committee, Formal Power Series and Algebraic Combinatorics: an International Combinatorics Conference (*FPSAC 2004*), Vancouver, June 28–July 2, 2004.

2004 Co-organizer, First Experimental Mathematics Workshop, Oakland, March 29–30, 2004.

2004 Co-organizer, First AGATE-M annual meeting Mount Allison, December 3–4, 2004.

2005 Scientific Committee, 10th Workshop on Well-posed Optimization Problems, Borowetz, Bulgaria Sept 9–14, 2005.

2005 Steering Committee, CFI Workshop to determine the form of the National Platform Fund, October 19th, 2005.

2006 Organizer, MAA Shortcourse on Experimental Mathematics, San Antonio, January 10–11, 2006.

2006 Co-chair Programme Committee, 2006 World Mathematical Knowledge Management Conference, UK. ICM Satellite Meeting, England, August 10–12, 2006.

2006 Scientific Committee, *Digitization in Mathematics*, ICM. Satellite Meeting, Aviero, Portugal, August 15–17, 2006.

Table 1. Comparison of the numbers of citations in different fields of science. Based on the data from *Science and Engineering Indicators 2004. National Science Foundation, May 04, 2004.*

Field	Average ratio of citation number to the number of citations in mathematics	1992		1994		1996		1997		1999		2001	
		number of citations	ratio to maths	number of citations	ratio to maths	number of citations	ratio to maths	number of citations	ratio to maths	number of citations	ratio to maths	number of citations	ratio to maths
Clinical medicine	78	475793	69	516665	78	554332	80	574859	90	584330	78	589762	76
Biomedical research	78	460148	67	518304	78	562361	81	572122	89	594596	79	568328	73
Biology	8	52535	8	57825	9	58649	8	58130	9	56981	8	57899	7
Chemistry	15	88010	13	96827	15	105960	15	105762	16	110927	15	109703	14
Physics	19	137922	20	141653	21	138417	20	131958	21	125968	17	120593	15
Earth/space sciences	9	55086	5	58818	9	71230	10	73507	11	83053	11	82614	11
Engineering/technology	5	32680	5	35189	5	33664	5	32958	5	34001	5	36809	5
Mathematics	1	6858	1	6631	1	6961	1	6418	1	7520	1	7794	1
Social/behavioral sciences	13	80282	12	84353	13	93032	13	93187	15	99481	13	104793	13

Figure 1: Citation equivalences between fields.

2007 Scientific Committee, *CODE conference (Conference on Optimization and Decision making)* Institut Henri Poincaré, April 18-20, 2007 (<http://www.ihp.jussieu.fr/>).

2008 Scientific Committee, *The Mathematical Interests of Peter Borwein* IRMACS, Burnaby BC, Canada, May 12-16, 2008.

2010- Member *Melbourne, Australia Bid Committee* 2015 International Symposium on Mathematical Programming (ISMP).

2012 Programme Committee of eResearch Australasia 2012, *emPowering eResearch*. 28 Oct - 1 Nov 2012, SMC Centre, Sydney.

2012-13 Conference Program Advisory Board, NSF-ICERM Workshop on *Reproducibility in Computational and Experimental Mathematics*. Providence RI, Dec 10 - 12, 2013.

2012-13 Conference Program Advisory Board, AustMS 2013. Sydney, Sept 30 - Oct 3, 2013.

3.5 Citation index information

- **Highly Cited Researchers Database (ISI)**

<http://isihighlycited.com>,

May 2002.

As of May 2012:

1. *ISI* Web of Knowledge lists over **4,433** citations with *h-index* of **35**: one paper has over 387 citations, another over 287, six have been cited 100 or more times, 38 or more thirty times and 60 more than 20 times.
2. *Scopus* lists over **2,778** citations with *h-index* of **26**: one paper has over 389 citations, another 291, and 32 papers with 20 or more citations (unlike ISI, the database is only complete for titles since 1996).
3. *Mathematical Reviews* Citation Database lists over **3,216** citations with *h-index* of **28** (unlike ISI, the database includes books; also many titles are only compiled since 1997 or 2000).
4. *Google Scholar* finds over **15,065** citations with *h-index* of **58**. *Google Citation Tracker* finds over **12,866** citations with *h-index* of **54**. *Microsoft* produces 5771 citations an *h-index* of 34 (20th)

4 Graduate students

- I list only those for whom I was the primary supervisor

M.Sc., B. Toulany (1977) Thesis title: “Disjunctive Programming,” Dalhousie

M.Sc., D.E. Ward (1981) Degree by Examination, Carnegie Mellon *M.Sc., R. Merkovsky (1981)* Degree by Examination, Carnegie Mellon

M.Sc., H.M. Strojwas (1984) Degree by Examination, Carnegie Mellon

M.Sc., D. Zhuang (1984) Thesis title: “Minimax Theorems,” Dalhousie.

M.Sc., D. Hughes (1984) Thesis title: “Computation of Pi,” Dalhousie

Ph.D., D.E. Ward (1984) Thesis title: “Tangent Cones, Generalized Subdifferentials, and Optimization,” Dalhousie. Now Professor, Miami University of Ohio.

Ph.D., H.M. Strojwas (1986) Thesis title: “Tangential Approximations,” Carnegie Mellon¹

Ph.D., D. Zhuang (1989) Thesis title: “Regularity and Maximality Properties of Set Valued Structures in Optimization,” Dalhousie [awarded the 1988 CAMS prize for best Canadian Applied Mathematics Thesis]. Tenured Associate Professor, Mount Saint Vincent University: Sept 1998, Researcher, IBM Development Lab, Toronto. 2000– Risk Analyst, Citigroup, NY.

Ph.D., W. Huang (1993) Thesis title: “Sequential convex programs: convergence and algorithms,” Dalhousie. Now Associate Professor, Lakehead University.

M.Sc., Xianfu Wang (Shawn) (1995) Thesis title: “Pathological examples of Lipschitz functions,” SFU

Ph.D., H. Bauschke (1996) Thesis title: “Projection Methods and Monotone Operators” [awarded 1996 NSERC Postdoctoral Fellowship, and the *Governor General’s Gold Medal* for SFU]. Now Canada Research Chair at UBC-Okanagan.

M.Sc., Erick Wong (1997) Thesis title: “Computation on Normal Families of Primes,” SFU.

M.Sc., K. Hare (1999) Thesis title: “Multisectioning, Rational Poly-exponential Functions and Parallel Computation,” SFU [CECM Report, 99:132]. Now Assistant Professor, University of Waterloo.

Ph.D., Xianfu Wang (Shawn) (1999) Thesis title: “Fine and Pathological Properties of Subdifferentials in Finite and Infinite Dimensions,” [Awarded 1999 NSERC Postdoctoral Fellowship], SFU. [CECM Report, 99:134]. SFU Nominee for NSERC 2000 Doctoral Prize in the Sciences. Assistant Professor at UBC Okanagan, 2001-.

M.Sc., Mason Macklem (2002) Thesis title: “Multidimensional Modelling of Image Fidelity Measures,” SFU.

M.Sc., Herre Wiersma (2002) Thesis title: “Duality Inequalities in Nonsmooth Optimization,” SFU.

M.Sc., Tara Stuckless (2003) Thesis title: “Brouwer’s Fixed Point Theorem: Methods of Proof and Generalizations,” SFU.

M.Sc., Terry Stanway (2003) Thesis title: “A Framework for Mathematical Knowledge Management,” SFU.

M.Sc., Chris Hamilton (2005) Thesis title: “Computational Convex Analysis,” SFU. Now PhD student Dalhousie FCS.

M. Pub., Jen Chang (2006) Report title: “The SAMPLE Experience: the Development of a Rich Media Online Mathematics Learning Environment,” SFU. (co-supervisor)

M.Sc., Liquin Ye (2006) Thesis title: “Numerical Quadrature: Theory and Computation,” Dalhousie. Now PhD student Dalhousie FCS.

Ph.D., Mason Macklem (2009) Thesis title: “Low-dimensional curvature models in derivative-free optimization on shared computing networks,” Dalhousie Faculty of Computer Science. Now Senior Researcher at WorldPlay Inc, Kelowna, BC.

M.Sc., Jaeyhun Paek (2011) Thesis title: “Privacy-Enhanced Public Name-Authority System for Building Research Communities,” Dalhousie FCS. Now Software Engineer. (Completed under the aegis of Andrew Rau-Chaplin.)

¹K. Kortanek, formal supervisor

Ph.D., Armin Straub (2012) Thesis title: “Arithmetic aspects of random walks and methods in definite integration.” Tulane University (co-supervised with Victor Moll).

4.1 Post doctoral fellows & associates (supported or directed since 1986)

1986–88 Marc Teboulle (Technion, Optimization, NSERC). Now Professor, Tel Aviv.

1987–89 Adrian Lewis (Cambridge, Optimization, NSERC). Now Professor, Cornell.

1989–91 Lou Shi To (Illinois, Number Theory, Killam Fellow).

1990–91 Dominikus Noll (Stuttgart, Functional Analysis, NSERC/Germany). Now on Faculty at Université de Toulouse.

1990–91 Zhuang Yadong (Yangzhou, Functional Analysis, AUCC)

1991 Frank Garvan (Penn State, Number Theory, NSERC Internat. Fellow). Now Professor, University of Florida.

1991–92 Mark Limber (Colorado, Approximation, NSERC)

1992–94 Jon Vanderwerff (Alberta, Functional Analysis, NSERC(National) PDF). Now Professor, La Sierra, California.

1993–94 Roland Girgensohn (Clausthal, Classical Analysis, Germany). Now Army Statistician and Assistant Professor in Munich.

1993–94 Qiji (Jim) Zhu (North Eastern, Control Theory, Shrum Chair PDF) Now Professor, Western Michigan University.

1993–95 Sheldon Parnes (Temple, Computational Analysis, CECM PDF). Then Software Engineer, Auto-trol Technology Corporation, Boulder Colorado.

1993–94 Mark Limber (Colorado, Approximation, NSERC PDF). Was Senior Software Engineer, Auto-desk Corporation. Now at Design Variations, Inc. Boulder Colorado.

1993–94 Martha Limber (Colorado, Dynamical Systems, NSERC PDF). Now System Scientist II, National Centre for Atmospheric Research, Boulder Colorado.

1994–95 Warren Moors (Auckland, Functional Analysis, private/NSERC). Now A/Professor, University of Auckland, New Zealand. (Recipient *New Zealand Mathematical Society Research Award* for “outstanding published research over the last 5 years”, 2001.)

1994–96 Chris Pinner (Texas, Number Theory, Shrum Chair/UBC PDF). Now Assistant Professor, Kansas State.

1995 (Jan-June) WeiWei Sun (Windsor, Numerical Analysis, Shrum Chair PDF, PT) Now at City University of Hong Kong.

1995–96 John Read (Darmstadt, Optimization, NSERC PDF/Waterloo). Recently, Chief Software Engineer, Orion Technologies.

1995–97 David Bradley (Urbana, Number Theory, NSERC (National) PDF). Now Professor, University of Maine.

1996–97 Yongheng Shao (Wayne State, Control & Optimization, Shrum Chair/UBC PDF).

1996–00 Petr Lisonek (Linz, Discrete Mathematics, NSERC PDF, PImS PDF, MITACS RA). Now Associate Professor at SFU.

1997–98 Ping Zhou (Capetown, Approximation, NSERC PDF). Now on Faculty at St Francis Xavier.

1997–99 Yves Lucet (Toulouse, Convex Optimization, PImS PDF/SFU-UofA-UVic). Now Assistant Professor at UBC in the Okanagan.

1997–99 Pierre Maréchal (Toulouse, Medical Imaging, PImS/Vancouver Hospital PDF). Now Faculty Member, Montpellier.

1999–00 Madhu Nayakkankuppam, (Courant Institute Optimization, PImS PDF/SFU-UBC). Now Assistant Professor at University of Maryland, Baltimore County.

1999–01 Ivaylo Kortezov (Sofia, Functional Analysis, NATO-NSERC PDF). Now Lecturer in the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia.

2000–02 Rafal Goebel (University of Washington, Optimization and Control, NSERC/SFU-UBC PDF). Now Assistant Professor, DePaul, Chicago.

2001–03 Lyn Bartram (Simon Fraser University, Human Computer Interfaces, NSERC IRF). Now Assistant Professor, SFU Surrey.

2001–03 Will Galway (University of Illinois, Computational Number Theory, PImS/HPC PDF)
2002–03 Hristo Sendov (University of Waterloo, Optimization and Nonlinear Analysis, NSERC PDF). Now Assistant Professor, UWO.
2002–04 Robert Scharein (University of British Columbia Knot Theory and Computer Graphics, CRC/HPC PDF)
2002–04 Russell Luke (University of Washington, Optimization and Numerical Analysis, PImS/HPC PDF). Now Assistant Professor, University of Delaware and Goettingen.
2004–06 Eva Curry (Rutgers University, Harmonic Analysis, Dalhousie PDF, with K. Taylor and K. Dilcher). Now Assistant Professor, Acadia University.
2006–08 Dante Manna (Tulane University, Classical Analysis, AARMS Director’s PDF). Now Assistant Professor, Virginia Wesleyan.
2006–09 O-Yeat Chan (University of Illinois, Number Theory, Dalhousie PDF, with K. Dilcher, NSERC PDF 07-09).
2006–07 Peter Dobscanyi (University of Auckland, Design Theory, SUN-ACEnet Fellow)
2008–10 Miroslav Bačak (Charles University, Prague, Functional Analysis, CARMA Fellow). Now RA at Max Plank Leipzig
2009–10 O-Yeat Chan (University of Illinois, Number Theory, CARMA Fellow). Now Financial software engineer, Toronto.
2011–13 Judy-anne Osborn (University of Melbourne, Combinatorics, CARMA Fellow)
2011–13 Francisco Aragon (University of Alicante, Spain, Optimization, CARMA Fellow)
2012–14 Liangjin Yao (UBC-O, Canada, Optimization, CARMA Fellow)

4.2 NSERC foreign scientist visitors

1992–93 Dominikus Noll (Stuttgart, Functional Analysis, Sept 92-Mar 93)
1993–94 Simon Fitzpatrick (W. Australia, Functional Analysis, August 93-Jan 94)
1996–97 Boris Mordukhovich (Wayne State, Optimization and Control, May-Dec 96 (periods))

5 Refereed journal publications (& papers in press)

1. Jonathan M. Borwein, “Ramanujan and Pi.” Prepared for a special December 2012 issue of *Notices of the AMS* for Ramanujan’s 125th birthday. Accepted April 2012.
 2. Heinz H. Bauschke, Jonathan M. Borwein, Sean Wang and Liangjin Yao, “Monotone operators and “bigger conjugate” functions.” *J. Convex Analysis*. Accepted March 2012. Available at <http://arxiv.org/abs/1108.2578>.
 3. Julia Piantadosi, Phil Howlett, Jonathan Borwein and John Henstridge, “Generation of simulated rainfall data at different time-scales.” *NACO*. Accepted March 2012.
 4. D. H. Bailey, J.M. Borwein, C. S. Calude, M. J. Dinneen, M. Dumitrescu, and A. Yee, “An empirical approach to the normality of pi.” *Experimental Mathematics*. Accepted February 2012.
 5. J.M. Borwein and A. Straub, “Mahler measures, short walks and logsine integrals.” *Theoretical Computer Science*. Special issue on *Symbolic and Numeric Computation*. Accepted January 2012.
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6. D. Borwein, J.M. Borwein, A. Straub and J. Wan, “Log-sine evaluations of Mahler measures, Part II.” *Integers*. Accepted November 2011. Available at <http://arxiv.org/abs/1103.3035>.
 7. D.H. Bailey, J.M. Borwein, A. Mattingly, and G. Wightwick, “The Computation of Previously Inaccessible Digits of π^2 and Catalan’s Constant.” *Notices of the AMS*. Accepted, July 2011.

8. Jonathan M. Borwein, Armin Straub and James Wan, “Three-step and four-step random walks.” *Experimental Mathematics*. Accepted, September 2010.
9. J.M. Borwein and R.E. Crandall, “Closed forms: what they are and why we care.” *Notices Amer. Math. Soc.* Accepted May 2010. Reprinted in Book # 7.

10. Jonathan M. Borwein and Armin Straub, “Log-sine evaluations of Mahler measures, Part I.” *Australian J. Maths*. Galleys, February 2012.
11. J.M. Borwein and Jon Vanderwerff, “Constructions of Uniformly Convex Functions.” *Canadian Math. Bull.* Galleys, June 2011.

12. David H. Bailey and Jonathan M. Borwein, “Ancient Indian Square Roots: An Exercise in Forensic Paleo-Mathematics.” *American Mathematical Monthly*. October (2012).
13. Jonathan Borwein, Peter Borwein and Veselin Jungic, “Remote Collaboration: Six Years of the Coast-To-Coast Seminar Series.” *Science Communication*. Volume 34 Issue 3 June 2012. Web published at <http://scx.sagepub.com/content/early/2012/03/26/1075547012443020>
14. David Bailey, Roberto Barrio and Jonathan Borwein, “High-Precision Computation: Mathematical Physics and Dynamics.” *Applied Mathematics and Computation*, E-published April 2012. <http://dx.doi.org/10.1016/j.amc.2012.03.087>
15. Heinz H. Bauschke, Jonathan M. Borwein, Sean Wang and Liangjin Yao, “The Brezis-Browder theorem in an arbitrary Banach space.” *J. Functional Analysis*, **262** (2012), 4948-4971. DOI <http://dx.doi.org/10.1016/j.jfa.2012.03.023>.
16. David Borwein, Jonathan Borwein and Armin Straub, “A sinc that sank.” *Amer. Mathematical Monthly*. August/September (2012), 535–549.
17. Heinz H. Bauschke, Jonathan M. Borwein, Sean Wang and Liangjin Yao, “Construction of pathological maximally monotone operators on non-reflexive Banach spaces.” *Set Valued and Variational Analysis*. Web published, April 5 2012. DOI: 10.1007/s11228-012-0209-0. Available at <http://arxiv.org/abs/1108.1463>.
18. D.H. Bailey and J.M. Borwein, “Hand-to-hand combat with multi-thousand-digit integrals.” *Journal of Computational Science*. **3** (2012), 77–86.
19. Jonathan M. Borwein, Phil Howlett and Julia Piantadosi, “Copulas with Maximum Entropy.” *Optimization Letters*, **6** (1) (2012), 99–125.
20. J.M. Borwein, “Maximum entropy and feasibility methods for convex and non-convex inverse problems.” Invited. *Optimization*, **61** (2012), 1–33. DOI: 10.1080/02331934.2011.632502.

21. Jonathan M. Borwein, Armin Straub, James Wan and Wadim Zudilin, with an Appendix by Don Zagier, “Densities of short uniform random walks.” *Can. Math. Journal*. Galleys, October 2011. Available at <http://arxiv.org/abs/1103.2995>.
22. J. Borwein, D. Nuyens, A. Straub, and James Wan, “Some Arithmetic Properties of Short Random Walk Integrals.” *Ramanujan Journal*. **26** (2011), 109–132.
23. D.H. Bailey and J. M. Borwein, “Exploratory Experimentation and Computation.” *Notices of the AMS*. **58** (10) (2011), 1410–1419. Reprinted in Book # 7. E-published October 13, 2011 at <http://www.ams.orolnotices>. In translation for *Mathematical Advance in Translation* (Chinese Academy of Science).

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 25. David Borwein, Jonathan M. Borwein, Larry Glasser and James Wan, “Moments of Ramanujan’s generalized elliptic integrals and extensions of Catalan’s constant.” *J. Math. Anal. Appl.* **384** (2011), 478–496.
 26. D.H. Bailey and J.M. Borwein, “High-Precision Numerical Integration: Progress and Challenges,” *Journal of Symbolic Computation*, 46 (2011) 741–754.
 27. J.M. Borwein, S. Reich, and S. Sabach, “A characterization of Bregman firmly nonexpansive operators using a new monotonicity concept.” *J. Nonlinear and Convex Analysis*. 12 (2011), 161–183.
 28. M. Bačák and J.M. Borwein, “On Difference Convexity of Locally Lipschitz Functions.” *Optimization*, **60** (2011), 961–978.
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29. J.M. Borwein and W. B. Moors, “Stability of closedness of cones under linear mappings, II.” *Journal of Nonlinear Analysis and Optimization: Theory & Applications*, **1**(1), (2010), 1–7.
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 32. Jonathan M. Borwein, O-Yeat Chan and Richard Crandall, “Higher-dimensional box integrals,” *Experimental Mathematics*. **19**(4) (2010), 431–446.
 33. J.M. Borwein and O-Yeat Chan, “Duality in tails of multiple zeta values,” *Int. J. Number Theory*, **3**(6) (2010), 501–514.
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54. J.M. Borwein, I. J. Zucker and J. Boersma, “The evaluation of character Euler double sums,” *Ramanujan Journal*, **15** (2008), 377–405. [CoLab Preprint 260].
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59. J.M. Borwein and H. Wiersma, “Decompositions of Monotone Operators,” *SIAM J. Opt.*, **18** (2007), 946–960. [D-drive Preprint 321].
 60. J.M. Borwein, “Maximality of Sums of Two Maximal Monotone Operators in General Banach Space,” *Proc. AMS*, **135** (2007), 3917–3924. [D-drive Preprint 322].
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99. Jonathan Borwein and Kwok-Kwong Stephen Choi, "On Dirichlet series for sums of squares," *Ramanujan Journal*, special issue for Robert Rankin, **7**, (2003), 95-128. [CECM Preprint 01:167].
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7 Books and Software

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6. Jonathan Borwein and Keith Devlin, *Experimentelle Mathematik Eine beispielorientierte Einführung*, Spectrum Math Verlag, 1st Edition, 2011, xii, 158 p. 40 illustrations, soft cover, ISBN: 978-3-8274-2661-1. (Translation and update of *The Computer as Crucible*.)

7. Jonathan M. Borwein and Peter B. Borwein, *Selected Writings on Experimental and Computational Mathematics*, PsiPress. October 2010.
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10. Jonathan M. Borwein, Eugenio M. Rocha, and Jose F. Rodrigues, *Communicating Mathematics in the Digital Era*, AK Peters, September 2008. ISBN-13: 978-1568814100.
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8 Book and other reviews

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8. *An Encyclopedia of Sequences*, N. Sloane and S. Plouffe, in *SIAM REVIEW*, **38**, (1996), 333–337. (With R. Corless)
9. *Pi in the sky: counting, thinking and being*, John Barrow, in *Science*, (March 26, 1993). (With P. Borwein)
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2. F. Aragon, D. H. Bailey, J.M. Borwein and P.B. Borwein, “Tools for visualizing real numbers. Part I: Planar number walks.” Preprint, May 2012.
3. D. H. Bailey, J.M. Borwein and R.E. Crandall, “Computation and theory of extended Mordell-Tornheim-Witten sums.” Submitted *Mathematics of Computation*, April 2012.
4. Jonathan M. Borwein and Liangjin Yao, “Structure theory for maximally monotone operators with points of continuity.” Submitted *JOTA*, March 2012. Available at <http://arxiv.org/abs/1203.1101>.
5. F. Aragon and J.M. Borwein, “Global convergence of a non-convex Douglas-Rachford iteration.” Submitted *J. Global Optimization*, March 2012.
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10 Works in preparation

1. Jonathan M. Borwein and Liangjin Yao, "Some results on the convexity of the closure of the domain of a maximally monotone operator." Preprint, May 2012.
2. D. Bailey, J. Borwein, R. Crandall and M. Rose, "Box integrals on fractal sets." Preprint, November 2011.
3. Jonathan M. Borwein, Andrew Eberhard and Liangjin Yao, "Monotone operators of type FPV." Preprint, August 2011.
4. D. H. Bailey, J.M. Borwein and A. Kaiser, "Computer-assisted simplification, validation and correction of mathematical formulas." Preprint, July 2011.
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11 Other manuscripts

1. D. H. Bailey, J.M. Borwein, C. S. Calude, M. J. Dinneen, M. Dumitrescu, and A. Yee, "Normality and pi." February 2012. Available at <http://www.carma.newcastle.edu.au/jon/normality-long.pdf>.
2. Heinz H. Bauschke, Jonathan M., Xianfu Wang and Liangjin Yao, "For maximally monotone linear relations, dense type, negative-infimum type, and Fitzpatrick-Phelps type all coincide with monotonicity of the adjoint." Available at <http://arxiv.org/abs/1103.6239>.
3. D.H. Bailey and J.M. Borwein, "The Greatest Mathematical Discovery?" Blog, May 2011.
4. Jonathan M. Borwein, "Talking to *Telstra*: Two weeks spent with Australia's largest Telco." Response to Australian Communications and Media Authority (ACMA) enquiry, *Reconnecting the Customer*, Sept 27, 2010. http://www.acma.gov.au/WEB/STANDARD/pc=PC_312279
5. M. Bačák, J. Borwein, and B. Sims, "Differentiability of convex functions in CAT(0) spaces." Preprint August 2010.
6. J.M. Borwein and A.C. Eberhard, "Banach spaces of type (NI) and monotone operators on non-reflexive spaces," June 2008. [D-drive Preprint 38x]
7. D. Bailey, J. Borwein, R. Crandall and D. Manna, "Heisenberg spin integrals," preprint, August 2007.
8. J.M. Borwein and Mason Macklem, "Retro-enhancement of Mathematical Literature," March 2007. [D-drive Preprint 339].
9. Jonathan Borwein and Helaman Ferguson, "The mathematics of salt," preprint, December 2006.
10. J.M. Borwein, R.K. Goodrich and M.A. Limber, "A comparison of entropies in the under-determined moment problem," preprint, May 1993.

11. J.M. Borwein, M. Fabian and J. Vanderwerff, "Locally Lipschitz functions and bornological derivatives," Nov. 1993. [CECM Research Report 93:012].
12. J.M. Borwein, P.B. Borwein, R. Girgensohn and S. Parnes, "Mathematical Experimentation and Methodology," January 1995.
13. H.H. Bauschke and J.M. Borwein, "Continuous linear monotone mappings in Banach space," August 1995. [CECM Research Report 95:049].
14. J.M. Borwein and S. Fitzpatrick, "Closed convex Haar null sets," August 1995. [CECM Research Report 95:052].
15. Jonathan M. Borwein, Jay Treiman and Qiji Zhu, "Sensitivity analysis in reflexive Banach spaces," preprint, August 1997.
16. J. M. Borwein and D. J. Broadhurst, "Determinations of rational Dedekind-zeta invariants of hyperbolic manifolds and Feynman knots and links," November 1998. [CECM Preprint 98:120]. [hep-th/9811173]
17. L. Berggren, J. Borwein and P. Borwein, *A Pamphlet on Pi*, June 2003, [CECM Preprint 2003:210].
18. J.M. Borwein and D.M. Bradley, "On Two Fundamental Identities for Euler Sums," preprint, February 2005, available at <http://arxiv.org/abs/math.NT/0502034/>
19. Jonathan Borwein and Peter (Liquin) Ye, "Quadratic Convergence of the Tanh-sinh Quadrature Rule," February 2006. [D-drive Preprint 315].

12 External invited lectures and presentations (since 1986)

12.1 1986 July–

1. **August 5th** "Cones, minimality notions and consequences," International conference on Vector Optimization, Darmstadt.
2. **November 17th** "A smooth variational principle," Computer Science/Optimization Seminar, University of Waterloo.
3. **November 24th** "Ramanujan, modular equations and pi," Colloquium, St. Francis Xavier.

12.2 1987

1. **January 22nd** "A smooth variational principle," AMS Winter meetings, San Antonio
2. **March 19th** "Ramanujan, modular equations and pi," Colloquium, Concordia
3. **March 24th** "Order complementarity," Colloquium, University of Western Ontario
4. **March 26th** "A smooth variational principle," Analysis/Applied Math seminar, University of Toronto.
5. **June 1st** "Ramanujan, modular equations and approximations to pi," Ramanujan Centenary Meeting, University of Illinois.
6. **June 25th** "A smooth variational principle," Franco-Quebec Conference on Non-linear Analysis, Perpignan.
7. **July 21st** "A theta identity of Ramanujan's and applications," AMS Summer Research Institute, Bowdoin College, Maine.

8. **October 15th** "Spectral analysis via convex programming," Charnes' 70th birthday conference, IC2, University of Texas at Austin.
9. **December 15th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Canadian Mathematical Society, Coxeter-James Lecture, Vancouver.

12.3 1988

1. **January 6th** "Partially-finite convex programming," AMS Winter Meetings, Atlanta.
2. **May 12th** "Ekeland's theorem and its extensions," Distinguished Lecturer Series, University of Delaware.
3. **May 13th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Distinguished Lecturer Series, University of Delaware.
4. **June 14th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Colloquium, University of Newcastle, Australia.
5. **June 27th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Colloquium, University of New England, Armidale, Australia.
6. **June 29th** "Ekeland's theorem and its extensions," Colloquium, University of New England, Armidale, Australia.
7. **July 27th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Colloquium, Auckland University, New Zealand.
8. **August 1st** "Ekeland's theorem and its extensions," Colloquium, Melbourne University, Australia.
9. **August 9th** "Open problems on the existence of nearest points," Workshop on Functional Analysis and Optimization, Australian National University, Canberra.
10. **August 17th** "Subderivatives and their applications," Conference on Functional Analysis and Optimization, Australian National University, Canberra.
11. **August 24th** "Mosco convergence and the Kadec property," Workshop on Functional Analysis and Optimization, Australian National University, Canberra.
12. **Sept 9th** "Subderivatives and their applications," Joint Colloquium, University of New South Wales and Sidney University.
13. **Sept 12th** "The arithmetic-geometric mean of Gauss and Legendre: An Excursion," Colloquium, Macquarie University, Sydney.
14. **Sept 14th** "Borchardt's four-dimensional arithmetic-geometric mean," Seminar, Macquarie University, Sydney.

12.4 1989

1. **Feb 8th** "The calculation of pi. How, why, what?" Nova Scotia Institute of Science, Halifax.
2. **Mar 4th** "Quadratic Mean Iterations," Carleton University/Universit d'Ottawa joint Colloquium, Carleton University, Ottawa.
3. **April 12th** "Quadratic Mean Iterations," Seminar, Rutgers' University, New Brunswick New Jersey.

4. **April 14th** “Pi and the arithmetic-geometric mean,” Colloquium, Rutgers University, New Brunswick, New Jersey.
5. **May 12th** “APICS/FRASER medal presentation talk,” Dalhousie, Halifax.
6. **June 9th** “Minimal CUSCOS and their applications,” Plenary talk, Conference on Fixed Point Theory, CIRM, Marseille.
7. **June 12th** “Minimal CUSCOS and Preisses theorem,” Miniconference on Optimization Theory, University of Pau, France.
8. **Oct 17th** “Semi-finite convex programming,” ORSA/TIMS National Meeting, New York (presented by A. Lewis).
9. **November 30th** “Pi, Euler, Ramanujan, and MAPLE”, Colloquium, Department of Computer Science, University of Manitoba.

12.5 1990

1. **Jan 19th** “Minimal CUSCOS and applications to Lipschitz functions,” AMS Winter Meetings, Louisville.
2. **Jan 22nd** “Pi, Euler, Ramanujan, and MAPLE”, APICS Lecture, Mount St Vincent University.
3. **Jan 26th** “Pi, Euler, Ramanujan, and MAPLE”, APICS Lecture, Mount Allison University.
4. **March 15th** “Pi, Euler, Ramanujan, and MAPLE”, APICS Lecture, University College of Cape Breton.
5. **March 16th** “The history of the computation of PI”, APICS Lecture, University of Prince Edward Island.
6. **March 23rd** “Pi, Euler, Ramanujan, and MAPLE”, APICS Lecture, Acadia University.
7. **March 24th** “The history of the computation of PI”, APICS Lecture, St. Francis Xavier University.
8. **March 31st** “The history of the computation of PI”, APICS Lecture, Memorial University.
9. **April 5th** “The history of the computation of PI”, APICS Lecture, Université de Moncton.
10. **April 6th** “Pi, Euler, Ramanujan, and MAPLE”, APICS Lecture, University of New Brunswick.
11. **April 20th** “Ekeland’s theorem and the smooth variational principle,” Conference on Topological Methods, Brock University.
12. **April 21st** “Differentiability properties of convex, Lipschitz and semicontinuous functions,” Ontario Math Meetings #88, Brock University.
13. **May 15th** “Differentiability properties of Lipschitz functions,” Nonlinear Analysis Seminar #1, Technion Israel.
14. **May 21st** “Differentiability properties of lower semicontinuous functions,” Nonlinear Analysis Seminar #2, Technion Israel.
15. **May 24th** “A survey of differentiability properties of convex, Lipschitz and semicontinuous functions,” Seminar, Technion Israel.

16. **May 25th** “Minimal CUSCOS and applications to Lipschitz functions,” Nonlinear Analysis Seminar #3, Technion Israel.
17. **May 28th** “A survey of differentiability properties of convex, Lipschitz and semicontinuous functions,” Seminar, Ben Gurion University, Israel.
18. **June 15th** “Pi, Euler, Ramanujan, and MAPLE,” Seminar, Technion Israel.
19. **August 22nd** “Convex programming approaches to moment, curve, and signal estimation,” Miniconference on Optimization Theory, Dalhousie.
20. **November 21st** “Convex programming and the choice of entropy in spectral estimation,” Seminar, Dept of Combinatorics and Optimization, Waterloo.
21. **December 6th** “Greek mathematics and the story of the circle,” Junior High presentation, Dalhousie.

12.6 1991

1. **January 25th** “Discovering analytic objects by computer,” Miniconference on Symbolic computation, Dalhousie.
2. **January 25th** “Discovering analytic objects by computer,” Miniconference on Symbolic computation, Dalhousie.
3. **March 13th** “Euler, Mahler, Ramanujan: Discovering analytic objects by computer,” Colloquium Pure Mathematics Department, Waterloo
4. **April 23rd** “Euler, Mahler, Ramanujan: Discovering analytic objects by computer,” Number Theory Seminar, Université de Limoges.
5. **April 25th** “Euler, Mahler, Ramanujan and a little Pi: Discovering analytic objects by computer.” One of two invited talks at the Festkolloquium for Dr. A. Peyerimhoff ’s 65th birthday, Ulm.
6. **April 29th** “A survey of differentiability properties of convex, Lipschitz and semicontinuous functions,” Colloquium, Universitat Stuttgart.
7. **May 15th** “Convex programming and the choice of entropy in spectral estimation.” First Plenary talk, Journées d’Optimization, Université de Limoges.
8. **May 17th** “A survey of differentiability properties of convex, Lipschitz and semicontinuous functions,” Optimization Seminar, Université de Limoges.
9. **May 21st** “Euler, Mahler, Ramanujan: Discovering analytic objects by computer,” Seminar Project Algorithms Group, INRIA, Paris.
10. **May 23rd** “A survey of differentiability properties of convex, Lipschitz and semicontinuous functions,” Analysis Seminar, Université de Paris VI.
11. **May 29th** “Convex programming and the choice of entropy in spectral estimation,” special session on Dynamic Optimization, CMS Summer Meeting, Université de Sherbrooke.
12. **June 5th** “On the generating function of $[na+b]$,” International Conference on Functional Equations, Acadia.
13. **June 27th** “Ramanujan: the wonderful life of the Indian mathematical genius S. Ramanujan (1887–1920),” Seminar, Faculty of Science, Simon Fraser University.
14. **June 28th** “Euler, Mahler, Ramanujan: Discovering analytic objects by computer,” Colloquium, Dept of Mathematics, Simon Fraser University.

15. **July 26th** "Ramanujan: the wonderful life of the Indian mathematical genius S. Ramanujan (1887–1920)," Colloquium, Combinatorics and Optimization, University of Waterloo.
16. **Oct 9th** "A survey of differentiability properties of convex, Lipschitz and semicontinuous functions," Analysis Seminar, York University.
17. **Oct 26th** "Estimation and approximation using infinite dimensional convex programs with entropy type objectives," Special session on Constrained Approximation, AMS Regional Meeting, University of North Dakota, Fargo.
18. **Nov 12th** "Discovering analytic objects by computer," Colloquium, Dept of Mathematics, Guelph University.

12.7 1992

1. **Feb 6th** "Euler, Mahler, Ramanujan: Discovering analytic objects by computer," Colloquium, Dept of Mathematics, York University.
2. **Feb 19th** "Estimation and approximation using infinite dimensional convex programs with entropy type objectives," Colloquium, Industrial and Organizational Engineering, University of Michigan.
3. **Feb 20th** "Euler, Mahler, Ramanujan: Discovering analytic objects by computer," Seminar, Dept of Mathematics, University of Michigan.
4. **April 9th** "Iterative methods for solving inverse problems and computing fixed points," Colloquium, Dept of Mathematics, Statistics and Computing Science, Dalhousie University.
5. **April 23rd** "Iterative methods for solving inverse problems and computing fixed points," Colloquium, Dept of Pure Mathematics, University of Western Ontario.
6. **May 2nd** "Guided Computer Experimentation in Mathematics: Euler, Mahler, Ramanujan and Maple," Harry H Gehman Lecture, MAA/OMM Meeting, Queens University, Kingston.
7. **May 16th** "First and second order differentiability of convex functions on various Banach spaces," Variational Analysis and Related Topics, University of California at Davis.
8. **May 21st** "Infinite dimensional entropy minimization: a tutorial," 14th Symposium on Mathematical Programming with Data Perturbations, George Washington University, Washington, D.C.
9. **May 22nd** "On the failure of 'maximum entropy' reconstruction for Fredholm operators and other infinite dimensional systems," 14th Symposium on Mathematical Programming with Data Perturbations, George Washington University, Washington, D.C.
10. **June 15th** "A communications example: Maple and Pari," Annual Maple Retreat, Sparrow Lake Ontario.
11. **Aug 20th** "First and second order differentiability of convex functions on various Banach spaces," Variational Analysis and Related Topics, First World Congress of Nonlinear Analysts, Tampa Florida.
12. **Sept 4th** "Iterative methods for solving inverse problems and computing fixed points," Third Franco-Latin American Conference on Applied Mathematics, Santiago Chile.

12.8 1993

1. **Feb 2nd** “First and second order differentiability of convex functions on various Banach spaces,” Colloquium, University of Western Ontario.
2. **Feb 3rd** “A history of the computation of Pi,” Undergraduate Colloquium, University of Western Ontario.
3. **Feb 12th** “An analyst’s approach to linear inequality systems,” Seminar, Dept. of Mathematics, University of Colorado.
4. **Feb 15th** “Computer assisted ‘Mathematics and Plausible Reasoning’,” Kempner Colloquium, Dept of Mathematics, University of Colorado.
5. **March 25th** “A history of the computation of Pi,” Colloquium, University of Vermont.
6. **April 8th** “Computer assisted ‘Mathematics and Plausible Reasoning’,” Colloquium, Dept. of Mathematics, Pennsylvania State University.
7. **May 1st** “First and second order differentiability of convex functions on various Banach spaces,” Regional Functional Analysis Conference, Miami University , Oxford, Ohio.
8. **May 7th** “Some intriguing series involving $\zeta(4)$,” Tutte Seminar, Dept of Combinatorics and Optimization, University of Waterloo.
9. **August 15th** “Means, iterations and experimentally induced identities,” MAA-CMS Invited Lecture, Joint AMS/MAA/CMS Summer Meetings, University of British Columbia, Vancouver.
10. **September 2nd** “Convex programming and entropy type functions,” Plenary Lecture, XVIII Symposium on Operations Research, University of Cologne.
11. **September 27th** “What is experimental Mathematics?,” Applied Mathematics Colloquium, University of British Columbia, Vancouver.
12. **October 9th** “Three examples of experimental computational analysis?,” Pacific Northwest Numerical Analysis Seminar, University of Washington, Seattle.
13. **October 16th** “S. Ramanujan: a Wonderful Life?,” South Asian Colloquium of the Pacific Northwest, Harbour Centre, Simon Fraser University.
14. **October 19th** “Shrum Inaugural Talk,” Harbour Centre, Simon Fraser University.

12.9 1994

1. **January 18th** “Nonsmooth analysis in smooth Banach spaces,” Colloquium, Department of Mathematics, University of Washington.
2. **March 3rd** “What is Experimental Mathematics?,” Colloquium, University of California, Santa Barbara.
3. **March 4th** “Nonsmooth analysis in smooth Banach spaces,” Analysis Seminar, University of California, Santa Barbara.
4. **March 22nd** “What’s Experimental Mathematics?” Talk to Grade 12 Students Spring-break, SFU.
5. **April 11th** “Nonsmooth analysis in smooth Banach spaces,” Colloquium, University of Victoria.

6. **April 14th** “Greek Mathematics and Especially the Story of the Circle,” High School Science Evening, Simon Fraser University.
7. **April 23rd** “What is Experimental Mathematics?,” Algorithms Seminar, Samedi de Recherche, University of Ottawa.
8. **June 27th** “Examples of convex functions and classification of normed spaces,” Plenary talk, VII Colloque Franco-Allemand d’Optimisation, Dijon.
9. **July 5th** “Nonsmooth analysis in smooth Banach spaces,” Colloquium, University of Limoges.
10. **August 11th** “Experimental mathematics, promises and pitfalls,” Maple Summer Workshop and Symposium, “Meeting of Maple Minds”, Plenary Talk, Rensselaer, New York.
11. **August 11th** “The vision: how do we integrate...mature computation techniques,” Maple Summer Workshop and Symposium, “Meeting of Maple Minds”, Symbolic algorithms panel, Rensselaer, New York.
12. **August 16th** “Ways of thinking about duality,” Student Session, XV International Mathematical Programming Symposium, Ann Arbor, Michigan.
13. **August 18th** “Viscosity derivatives: theory and applications,” XV International Mathematical Programming Symposium, Ann Arbor, Michigan.
14. **August 18th** “Maximization entropy methods (using derivative information) and infinite dimensional convex programming,” XV International Mathematical Programming Symposium, Ann Arbor, Michigan
15. **October 7th** “Giuga’s conjecture on primality,” Centre de Recherche Mathématiques XXV Anniversary Conference, Montreal, Quebec
16. **November 18th** “Experimental mathematics, promises and pitfalls,” Colloquium, Dept of Mathematics, Indiana University, Bloomington Indiana.
17. **November 24th** “Experimental mathematics, promises and pitfalls,” Colloquium, Dept of Mathematics and Statistics, University of Calgary.
18. **December 11th** “Characterizations of generalized subgradients amongst one-dimensional multifunctions: and extensions,” CMS Winter Meeting, Special Session on Nonsmooth Analysis Meridien Hotel, McGill University.
19. **December 16th** “Control problems with perturbations in non-reflexive space,” with J. Zhu, 33rd CDC-IEEE Meetings Orlando/Florida

12.10 1995

1. **January 7th** “Minimal multifunctions and their applications,” Special Session on multi-valued nonlinear dynamics, AMS Winter Meeting, Hilton Hotel, San Francisco.
2. **February 22nd** “Virtual Science: the future of mathematical research,” President’s Lecture Series, Simon Fraser University.
3. **March 2nd** “Virtual Science: the future of mathematical research,” Science I, University of British Columbia.
4. **March 5th** “Essentially strictly differentiable Lipschitz functions,” West Coast Optimization Meeting, University of Washington.

5. **April 1st** “Minimal multifunctions and their applications,” Workshop on Nonsmooth Analysis and Applications, University of California at Santa Barbara, April 1–2.
6. **April 7th** “Experimental mathematics, promises and pitfalls,” Colloquium, Dept of Mathematics and Computing Science, University of Northern British Columbia, Prince George, BC.
7. **May 17th** “Experimental evaluation of Euler sums,” Halberstam retirement conference, Urbana, Illinois, May 16–21, 1995.
8. **June 28th** “Viscosity derivatives: theory and applications,” Analysis Seminar, University of Auckland, New Zealand.
9. **July 5th** “Experimental mathematics, promises and pitfalls,” Principal Lecture, Australian Mathematical Society Meeting, University of Tasmania, Hobart, Tasmania.
10. **July 11th** “Maximum entropy methods (using derivative information) and infinite dimensional convex programming,” Principal Lecture, Optimization Miniconference, University of NSW, Sydney.
11. **July 17th** “Essentially strictly differentiable Lipschitz functions,” Seminar, University of Newcastle, Australia.
12. **July 18th** “On Khinchine’s Constant,” Seminar, University of Newcastle, Australia.
13. **July 19th** “Experimental mathematics, promises and pitfalls,” University Public Lecture, University of Newcastle, Australia.
14. **July 27th** “Experimental mathematics, promises and pitfalls,” Colloquium, Department of Mathematics and Statistics, University of Western Australia.
15. **August 1st** “Maximum entropy methods (using derivative information) and infinite dimensional convex programming,” Pure Mathematics Seminar , University of Western Australia, Perth.
16. **August 7th** “Experimental mathematics, promises and pitfalls,” Colloquium, Department of Mathematics and Statistics, Murdoch University. Perth, Western Australia.
17. **October 5th** “What is Experimental mathematics?” Principal Lecture, Workshop on Experimental Mathematics, CARMA, Technical University of Denmark.
18. **October 24th** “Convex Haar null sets in separable Banach spaces,” Lecture at Honoris Causa ceremony for R.T.Rockafellar, Université de Montpellier II.
19. **October 26th** “Experimental mathematics: promises and pitfalls,” General Colloquium Lecture, University of Utrecht.
20. **October 26th** “The cubic AGM discovered,” Specialist Colloquium Lecture, University of Utrecht.
21. **November 8th** “Convex Haar null sets in separable Banach spaces,” Functional Analysis Seminar, Department of Mathematics and Statistics, University of Saskatchewan.
22. **November 9th** “Experimental mathematics, promises and pitfalls,” Colloquium, Department of Mathematics and Statistics, University of Saskatchewan.
23. **December 7th** “On Khinchine’s Constant,” Colloquium, Department of Mathematics and Statistics, University of Calgary.

12.11 1996

1. **February 6th** “Experimental mathematics, promises and pitfalls,” Colloquium & MAA Visiting Lecture, Department of Mathematics, Western Washington University.
2. **March 29th** “The Organic Mathematics Proceedings,” Colloquium, University of Manitoba.
3. **June 13th** “Multidimensional Euler Sums: some Recent Results,” Combinatorics and Graph Theory Conference (in honour of Herbert Wilf’s 65th birthday), June 13-15, University of Pennsylvania.
4. **August 10th** “Convex Analysis and Applications,” AMS Mathfest, University of Washington.
5. **August 14th** “Multidimensional Euler Sums: some Recent Results,” CECM Conference on Analysis and its Computational Applications, Simon Fraser University, August 14–15.
6. **August 21st** “Multidimensional Euler Sums: some Recent Results,” Fifth Canadian Number Theory Association Meeting, Carleton University, August 17–22.
7. **August 23rd** “Virtual science: the changing face of Mathematics,” National Council of Teachers of Mathematics, Canadian Regional Meeting, Vancouver, August 22–23.
8. **September 21st** “Mathematical publishing on the web,” 10th Pacific North West Numerical Analysis Seminar, Vancouver.
9. **November 5th** “Multi-modal Mathematics,” First Annual TeleLearning Meeting and Conference (as part of Plenary – Theme 5: Post Secondary Education), Montreal November 5–7.
10. **November 15th** “Doing Mathematics on the Web,” Colloquium, Department of Mathematics, University of British Columbia.

12.12 1997

1. **January 15th** “Doing Mathematics on the Web,” Colloquium, Department of Mathematics and Statistics, Simon Fraser University.
2. **February 20th** “Doing Mathematics on the Web,” Colloquium, Department of Mathematics, Stats and CS, Dalhousie University.
3. **March 4th** “Maximum Entropy Methods an Introduction,” VHHSC Medical Imaging Group Open House, Vancouver Hospital and Health Science Centre.
4. **March 7th** “Online publishing: two views from the electronic trenches,” Scholarly Communication in the Next Millennium, Simon Fraser University (Harbour Centre), March 5–8.
5. **March 26th** “Doing Mathematics on the Web,” Colloquium, Science Faculty, Malaspina University College, Nanaimo, BC.
6. **April 19th** “Evaluation of multi-dimensional Euler Zagier sums,” AMS Special Session on Algebraic and Elementary Number Theory, Corvallis Oregon, April 19-20.
7. **April 24th** “Mathematics on Main Street,” Board-Faculty Association Dinner (with P. Borwein), Simon Fraser University.
8. **May 2nd** “Partially smooth variational analysis,” AMS Special Session on Optimization and Variational Analysis, Wayne State, Detroit, May 2–4.

9. **May 5th** “Talking about Pi,” Mathematics and Statistics Department Colloquium, Western Michigan University, Kalamazoo.
10. **May 20th** “Multi-dimensional polylogarithmic sums,” CRM Workshop on Experimental Mathematics and Combinatorics, Montreal, May 19–23.
11. **June 1st** “Mathematical publishing on the web,” CAMS–Fields Mini–Colloquium on Technology and Mathematical Education, Toronto.
12. **June 29–30** “The MathResource and the MathBrowser,” 13 presentations at NECC, Seattle.
13. **July 14th** “three adventures: Symbolically discovered identities for ZETA($4N+3$) and like matters,” Plenary talk, Formal Power Series and Algebraic Combinatorics, 9, Vienna, July 14–18.
14. **July 31st** “Symbolically discovered identities for ZETA($4N+3$) and multidimensional polylogarithms,” Penn State Number Theory Conference, July 31–Aug 3.
15. **August 4** “Talking about Pi,” two lectures, Canada USA Mathcamps, Babson College, Wellesley, Mass.
16. **August 5** “Virtual science: the changing face of mathematical research,” three lectures, Canada USA Mathcamps, Babson College, Wellesley, Mass.
17. **August 6** “Doing mathematics on the web: the organic mathematics collection,” two lectures, Canada USA Mathcamps, Babson College, Wellesley, Mass.
18. **September 22nd** “Mathematical publishing on the web,” Colloquium, School of Mathematical Sciences, Lakehead University.
19. **September 22nd** “Talking about Pi,” Colloquium, School of Mathematical Sciences, Lakehead University.
20. **September 24th** “Inverse symbolic calculation: empirical mathematics,” CRM Workshop on Computer Algebra and Statistics, Montreal, September 21–27.
21. **October 6th** “Doing mathematics on the web,” 1997 Elizabeth Laird Lecture, University of Winnipeg.
22. **October 7th** “Why Pi?” Colloquium, Department of Mathematics and Statistics, University of Winnipeg.
23. **October 9th** “three adventures: Symbolically discovered identities for ZETA($4N+3$) and like matters,” Joint CS/C&O Colloquium, University of Waterloo.
24. **November 3rd** “Talking about Pi,” Undergraduate Colloquium, University of Western Ontario.
25. **November 5-6** “Multimodal Mathematics,” Software Demonstrations, Telelearning NCE, Second Annual Conference, Toronto.

12.13 1998

1. **March 9th** “Partially smooth variational analysis,” Workshop talk, CMA National Symposium on *Functional Analysis, Optimization and Applications*, University of Newcastle, March 9-21.
2. **March 13th** “Sandwich (interpolation) theorems for Lipschitz functions,” Workshop talk, CMA National Symposium on *Functional Analysis, Optimization and Applications*, University of Newcastle, March 9-21.

3. **March 16th** “Virtual science: doing math on the web,” Public lecture in conjunction with CMA National Symposium on *Functional Analysis, Optimization and Applications*, University of Newcastle, March 9-21.
4. **March 20th** “Projection algorithms and monotone operators,” Plenary lecture in conjunction with CMA National Symposium on *Functional Analysis, Optimization and Applications*, University of Newcastle (CIDACS and Mathematics), March 9-21.
5. **March 31st** “Three adventures in symbolic computing,” the Macquarie Mathematics Colloquium and Number Theory Seminar.
6. **April 22nd** “The Joy of Pi,” joint presentation and book signing with D. Blatner and L. Berggren, University of Washington Bookstore.
7. **April 24th** “Partially smooth variational analysis,” Spring 1998 West Coast Optimization Meeting, Harbour Centre, Simon Fraser University.
8. **June 10th** “Some new mean value inequalities,” Analysis Seminar, Dalhousie University.
9. **June 29th** “Euler sums,” CECM98 Analysis Day, Simon Fraser University.
10. **Aug 3-7** “Multifunctional and functional analytic methods in nonsmooth analysis,” Four Lectures, NATO Advanced Study Institute on *Analyse non linéaire, équations différentielles et contrôle*, University of Montreal, July 27–Aug 7.
11. **October 1st** “High Performance Symbolic Computing: A Mathematician’s Perspective,” Plenary Lecture, NESRC-MSRI Workshop on Parallel Symbolic Computation (Oct. 1–3), Berkeley.
12. **November 13th** “Brainstorming: views of the future,” Presentation, First Workshop of the IMU *Committee on Electronic Information and Communication*, (Nov 13–14), Konrad-Zuse-Zentrum für Informationstechnik, Berlin.
13. **November 18th** “Collaborative Networking Technology in the Mathematical Sciences,” *MITACS/Canada-China Opening*, Asia-Pacific Centre, UBC.
14. **November 21st** “Math Resources: Interactive Mathematics Workspaces,” *Eleventh International Conference on Technology in Collegiate Mathematics*, New Orleans, (Nov 20–22).

12.14 1999

1. **January 16th** “Experimental Mathematics: Insight from Computation,” MAA Invited Address, Combined Mathematics Meetings, San Antonio, January 12–16.
2. **January 21st** “Some New Mean–value Inequalities,” Lecture I, Institute of Advanced Research in Mathematics (IAS), Technion, Haifa, Israel.
3. **January 24th** “Partially smooth variational analysis,” Nonlinear analysis seminar, Technion, Haifa, Israel.
4. **January 25th** “Experimental Mathematics: Insight from Computation,” Lecture II, Institute of Advanced Research in Mathematics (IAS), Technion, Haifa, Israel.
5. **January 27th** “Talking about Pi,” Technion Mathclub Lecture, Technion, Haifa, Israel.
6. **January 28th** “Projection Algorithms & Tangency Formulae,” Lecture III, Institute of Advanced Research in Mathematics (IAS), Technion, Haifa, Israel.

7. **February 6th** “Some New Mean–value Inequalities,” Winter 1998 West Coast Optimization Meeting, University of Washington, Feb 5-6.
8. **February 8th** “Publishing on the Web,” Burnaby Rotary Club.
9. **March 12th** “Experimental Mathematics: Insight from Computation,” 2 hour Invited Address, MAA Pacific Northwest Section Meeting, Willamette University, Salem Oregon, March 12-13, 1999.
10. **March 13th** “Why Pi? ,” Dinner Address, MAA Pacific Northwest Section Meeting, Willamette University, Salem Oregon, March 12-13, 1999.
11. **March 28th - April 2nd** “Convex Analysis and Nonlinear Optimization,” Mini-course (9 hours), 5th International Conference on Approximation and Optimization in the Caribbean, Guadeloupe, March 28 - April 2, 1999.
12. **May 29th** “Generic Behaviour of Generalized Gradients,” Special Session on Nonlinear Analysis, Canadian Mathematical Society Summer Meeting, Memorial University.
13. **June 4th** “ Numerical and Computational Mathematics at the Undergraduate Level,” Technology in Mathematics Education (TMEST), Plenary, Brock University, June 3-4.
14. **June 4th** “ The Doing of Mathematics in the Presence of Technology,” Canadian Mathematics Education Study Group (CMESG), First Plenary, Brock University, June 4-8.
15. **June 13th** “Distributed Network Mathematics Laboratories,” TL-NCE Project Leaders Meeting, Toronto.
16. **July 13th** “ The Doing of Mathematics in the Presence of Technology,” Session on Electronic Information and Communication, Joint Australian-American Math Society Meetings, Melbourne, July 12-15.
17. **July 13th** “Maximizing Surprise,” Session on Operations Research, Joint Australian-American Math Society Meetings, Melbourne, July 12-15.
18. **July 13th** “Generic Behaviour of Generalized Gradients,” Session on Nonlinear Dynamics and Optimization, Joint Australian-American Math Society Meetings, Melbourne, July 12-15.
19. **July 16th** “Some New Mean-Value Theorems,” Sixth Australian Optimization Day, Ballarat, Victoria.
20. **July 29th** “Experimental Mathematics and Exact Computation,” Plenary Lecture, International Symposium on Symbolic and Algebraic Commutation (ISSAC), Vancouver, July 29–31, 1999.
21. **August 3rd** “Distributed Network Mathematics Laboratories,” MITACS Day, CECM, Simon Fraser University.
22. **September 14th** “Partially Smooth Variational Analysis,” Seventh Conference on Well-posedness and Stability of Optimization Problems, Gargnano Italy, September 13–18.
23. **September 17th** “Experimental Mathematics and Exact Computation,” Colloquium, Physics Department, University of Bologna.
24. **September 22nd** “Honoris Causa,” acceptance speech, University of Limoges.
25. **September 23rd** “Maximizing Surprise,” Colloque: Analyse et Applications”, University of Limoges, September 22–23.

26. **October 1st** “Maximizing Surprise,” Colloquium, Pure Mathematics Department, University of Western Ontario.
27. **October 14th** “Doing Math in the Presence of Technology,” Colloquium, Department of Mathematics and Statistics, Miami University of Ohio (1999 Buckingham Fellow in Residence).
28. **October 15th** “Experimental Mathematics: Insight from Computation,” Twenty-Seventh Annual Fall Conference: “Experimental Mathematics”, Miami University, October 15–16.
29. **October 16th** “Pi and its Computation,” Twenty-Seventh Annual Fall Conference: “Experimental Mathematics”, Miami University, October 15–16.
30. **November 9th** “Issues for Active Math and Math Labs,” (with June Lester), Issues for next generation telelearning systems, Telelearning 1999, Montreal, November 6–9.
31. **November 12th** “Interactive Mathematics Labs,” CECM-MITACS Day Presentation, SFU.

12.15 2000

1. **March 13-16th** “Parallel Symbolic Computation: Methods and Issues,” Haifa-Technion Workshop on ‘Inherently parallel algorithms in optimization and feasibility and their applications’, March 14.
2. **April 8th** “Experimental Mathematics and Exact Computation,” Washington State Meeting on Exact Algorithmics, Pullman Washington.
3. **April 12th** “Experimental Mathematics and Exact Computation,” Colloquium, Mathematics Department, Temple University, Philadelphia.
4. **April 13th** “Experimental Mathematics and Exact Computation,” Colloquium as Thirteenth Annual Donald H. Clanton Visiting Mathematician, Furman University, South Carolina.
5. **April 13th** “The Impact of Technology on the Doing of Mathematics,” Public Lecture as Donald H. Clanton Visiting Mathematician, Furman University, South Carolina.
6. **April 19th** “Experimental Mathematics and Exact Computation,” Colloquium, University of Western Australia.
7. **May 24th** “Maximizing Surprise,” Colloque, Université des Antilles et de la Guyane, Guadeloupe.
8. **May 29th** “Some New Mean-Value Theorems,” Colloque, Université des Antilles et de la Guyane, Guadeloupe.
9. **May 31st** “Generic Properties of Generalized Gradients,” Colloque, Université des Antilles et de la Guyane, Guadeloupe.
10. **June 2nd** “Mathématiques numérique et informatique,” Conférence, 5ieme Colloque de l’IREM (Institut de recherche sur l’enseignement des mathématiques) Antilles-Guyane, Guadeloupe.
11. **June 10th** “CEIC-IMU Initiatives,” CMS special session on *Mathematics on the Internet, II* (MOTI-2), CMS Year 2000 Summer Meeting, Hamilton, June 10–13.
12. **June 17th** “Numerical and Computational Mathematics at the Undergraduate Level,” Plenary lecture, Pacific Northwest Sectional MAA Meeting, UBC, 16–17 June.

13. **July 13th-14th** “Experimental Mathematics and Other Good Stuff,” Four Hour Lecture Series, Canada-US Mathcamps, University of British Columbia.
14. **July 19th** “The Generic Behaviour of Generalized Gradients,” Third World Congress of Nonlinear Analysts, Special session on “Variational Analysis and Optimization”, July 19-25, 2000, Catania, Italy.
15. **July 25th** “Tools for (Partially) Smooth Variational Analysis,” Third World Congress of Nonlinear Analysts, Plenary Lecture, July 19-25, 2000, Catania, Italy.
16. **October 4th** “Experimental Mathematics and Exact Computation,” Colloquium at GSF-Forschungszentrum Inst. für Biomathematik und Biometrie, University of Munich.
17. **October 5th** “Experimental Mathematics and Exact Computation,” Ernst Schroedinger Lecture, Schroedinger Institute, University of Vienna.
18. **October 17th** “Experimental Mathematics and Other Good Stuff,” Science One Presentation, University of British Columbia.
19. **November 2nd** “Maximizing Surprise,” Colloquium, Mathematics Department, Michigan State University.
20. **November 5th** “The use of wireless and handheld devices in telelearning,” Panel, Telelearning Annual Meeting, Toronto.
21. **November 27th** “Experimental Mathematics and Exact Computation,” Colloquium, University of Coimbra, Portugal.
22. **November 28th** “Experimental Mathematics and Exact Computation,” Colloquium, University of Lisbon.
23. **December 10th** “Multivariable sinc integrals and volumes of convex polyhedra,” Special Session on Classical and Computational Analysis, Canadian Mathematical Society Winter Meeting, Vancouver.

12.16 2001

1. **January 10th** “Multivariable sinc integrals and volumes of convex polyhedra,” Special Session on Series and Integrals, Combined Mathematics Meetings, New Orleans, January 9-13.
2. **April 18th** “Aesthetics for the Working Mathematician,” Public Lecture at Queens University Symposium on Beauty and the Mathematical Beast, April 18-19.
3. **May 17th** “Maximum Entropy-Type Methods and Convex Programming,” at Workshop on New Approaches to the Phase Problem, Lawrence Berkeley National Laboratory, May 17-19 (replaced by poster)
4. **June 28th** “Exploring Math on the Internet,” Esso-CMS-PIMS Math Camp, (9.00-12.00), Simon Fraser, June 25-29.
5. **July 27th** “The International Math Union’s Electronic Initiatives — and WestGrid,” CECM01 Summer Conference, *Analysis, Computation and Communication* Simon Fraser, July 27-28.
6. **August 16th** “Multivariable sinc integrals and volumes of convex polyhedra,” Analysis Seminar, Newcastle University, NSW.
7. **August 20th** “Aesthetics for the Working Mathematician,” Special Mathematics Seminar, University of New South Wales, Sydney.

8. **August 21st** “Aesthetics for the Working Mathematician,” Mathematics Colloquium, Macquarie University, Sydney.
9. **August 21st** “Experimental Mathematics and Exact Computation,” Number Theory Seminar, Macquarie University, Sydney.
10. **September 25th** The International Mathematical Union’s Electronic Initiatives,” First International Workshop on Mathematical Knowledge Management, Sept 24-26, RISC Linz, Austria.
11. **October 22th** “Multivariable sinc integrals and volumes of convex polyhedra,” ALGO Seminar, INRIA - Rocquencourt, France.
12. **October 22th** “Dirichlet Series of Squares of Sums of Squares,” ALGO Seminar, INRIA - Rocquencourt, France.
13. **October 23rd** “Experimental Mathematics and Exact Computation,” Distinguished Visitor Colloquium, INRIA - Rocquencourt, France.
14. **October 24th** “Experimental Mathematics and Exact Computation,” Colloquium, University of Limoges, France.
15. **November 2nd** “Challenges in Mathematical Computing — Why Math is Still Hard,” MAA Seaway Sectional Meeting, after dinner lecture, Brock University, St. Catharines, November 2-3, 2001.
16. **November 15th** “Collaborative online mathematics: wishing and hoping,” plenary lecture, Fields Institute Workshop on *Online Mathematics*, November 15-17, 2001.
17. **December 9th** “Aesthetics for the Working Mathematician,” Special Session on History of Mathematics, CMS Winter Meeting, Toronto, December 8-10, 2001.

12.17 2002

1. **February 16th** “The International Mathematical Union’s Electronic Initiatives,” at workshop on *Managing digital information in mathematics: From journals to the gray literature*. during the *Fourth Annual CEIC Meeting*, Vancouver Wosk Centre, February 15-17, 2001.
2. **March 20th** “Why Math is (Still) Hard: Challenges for Mathematical Computing,” Distinguished Visitors Colloquium, Wayne State, Detroit.
3. **March 26th** “Mathematical Marvels: Fields of Dreams,” in Simon Fraser series *A Passion For Excellence*, on the Nobel and like Prizes.
4. **April 22nd** “Why Math is (Still) Hard: Challenges for Mathematical Computing,” Colloquium, Centre de Recherches Mathématiques, Montreal.
5. **May 4th** “Differentiability of monotone functions on separable Banach space,” Spring 2002 West Coast Optimization Meeting, Burnaby Mountain Campus, Simon Fraser University.
6. **May 22nd** “Dirichlet series for squares of sums of squares,” Plenary Lecture at *Seventh Canadian Number Theory Association Conference* at CRM, May 19-25, 2002.
7. **May 26th** “The Experimental Mathematician: The Pleasure of Discovery and the Role of Proof,” Plenary Lecture at *25th Anniversary Meeting of the Canadian Math Educators Study Group* (CMESG), Queens University, Kingston, May 25-29, 2002.

8. **May 27th** “The Experimental Mathematician: The Pleasure of Discovery and the Role of Proof,” Response and Discussion, *25th Anniversary Meeting of the Canadian Math Educators Study Group (CMESG)*, Queens University, Kingston, May 25-29, 2002.
9. **July 16th** “Bregman Monotone Optimization Methods and Related Convex Functions,” Plenary Lecture, *IV Brazilian Workshop on Continuous Optimization*, IMPA, Rio de Janeiro, July 15-20, 2002.
10. **August 17-19th** “The Experimental Mathematician: A Computational Guide to the Mathematical Unknown,” Plenary Lecture at *The First International Congress of Mathematical Software*, Beijing, August 17-19, 2002.
11. **August 26th** “Introduction to the work of the CEIC,” *Electronic Information Afternoon* at the ICM, Beijing, August 20-27, 2002.
12. **August 29th** “The Next Four Years,” Invited Lecture at ICM Satellite Meeting on *Electronic Information and Communication in Mathematics*, Beijing, August 29-31, 2002.
13. **August 31st** “The Digital Library of Mathematics,” Presentation at ICM Satellite Meeting on *Electronic Information and Communication in Mathematics*, Beijing, August 29-31, 2002.
14. **September 21st** “Welcome to the Mathematics of Dynamic SPECT,” Workshop on *Exploring the Frontiers of Dynamic SPECT*, Wall Institute, UBC, Vancouver, September 20-23, 2002.
15. **October 18th** “Dirichlet series for squares of sums of squares,” Discrete Mathematics Seminar, University of Calgary.
16. **November 2nd** “The CEIC: The Next Four Years,” West Coast Optimization Fall Meeting, University of Washington.
17. **November 13th** “Differentiability of monotone functions on separable Banach space,” Nonlinear Analysis Seminar, University of Pau, France.
18. **November 14th** “The Experimental Mathematician: A Computational Guide to the Mathematical Unknown,” Numerical Analysis Seminar, University of Pau, France.
19. **December 9th** “Digitizing the entire mathematical literature: what wild surmise!” CMS Special Session on *History of Mathematics*, Ottawa, December 8-10, 2002. (Also presented to CISTI Board, December 6th.)

12.18 2003

1. **January 24th** “Discovery in Mathematics,” Workshop on *Special Functions in the Digital Age*, Simon Fraser, January 23–24, 2003.
2. **February 26th** “The Department, Simon Fraser University.
3. **March 3rd** “The long range plan for high-end computing in Canada,” Vancouver ‘town hall’ meeting, Simon Fraser University.
4. **March 10th** “The long range plan for high-end computing in Canada,” Victoria ‘town hall’ meeting, University of Victoria, B.C. .
5. **March 13th** “The Fields, Nevanlinna and Abel Prizes: Chasing the Mathematical Prize,” in lecture series *Recognizing Excellence. The Nobels and Other Prizes*, Series, SFU Harbour Centre, 2003.
6. **March 14th** “The Life of Pi,” *Pi Day Open House*, Simon Fraser University.

7. **March 24th** “The Life of Pi,” *Frontiers of Mathematics*, Lecture Series, Texas A&M University, March 22–27, 2003.
8. **March 25th** “Experimentation in Mathematics: Part I,” *Frontiers of Mathematics*, Lecture Series, Texas A&M University, March 22–27, 2003.
9. **March 26th** “Experimentation in Mathematics: Part II,” *Frontiers of Mathematics*, Lecture Series, Texas A&M University, March 22–27, 2003.
10. **April 28th** “Experimentation in Mathematics,” Dalhousie University, Faculty of Computing Science Colloquium, 2003.
11. **April 30th** “Canadian Highend Computing Initiatives,” NRC-CISTI Presentation, CISTI Advisory Board, Fredericton.
12. **May 8th** “Official WestGrid Launch,” Vancouver MC, NewMIC, Edmonton, Calgary, Ottawa.
13. **May 18th** “Bringing Math to the Public,” Panel Moderator, CMS National School Math Forum, May 16–18, Montreal.
14. **June 13th** “Nurturing New Mathematicians: Some Advice on Advising,” presentation at Panel on Supervision, *Project NextTMAC*, CMS 2003 Summer Meeting, University of Alberta, Edmonton, Alberta.
15. **June 25th** “Mathematics by Experiment: Plausible Reasoning in the 21st Century,” Colloquium, University of Adelaide, Australia.
16. **June 27th** “Experimentation in Mathematics: Computational Paths to Discovery.” Colloquium, University of Adelaide, Australia.
17. **July 1st** “The Life of Pi,” Colloquium, University of South Australia, Adelaide, Australia.
18. **July 3rd** “The Life of Pi,” Colloquium, Royal Melbourne Institute of Technology, Melbourne, Australia.
19. **July 7th** “Handling Electronic Issues in the International Mathematical Community,” ICIAM 2003 Mini-symposium, International Congress on Industrial and Applied Mathematics, Sydney, Australia.
20. **July 9th** “Advanced Collaboration and Grid Computation, I” ICIAM 2003 Mini-symposium, International Congress on Industrial and Applied Mathematics, Sydney, Australia.
21. **July 9th** “Advanced Collaboration and Grid Computation, II” ICIAM 2003 Mini-symposium, International Congress on Industrial and Applied Mathematics, Sydney, Australia.
22. **July 15th** “The Life of Pi,” Colloquium, University of Newcastle, NSW, Australia.
23. **July 31st** “The AGM Continued Fraction of Ramanujan,” CECM Day 2003, SFU.
24. **September 10th** “A One Function Variational Principle,” Eighth Conference on Well-posedness and Stability of Optimization Problems, Marseilles France, September 8–12.
25. **September 16th** “The AGM Continued Fraction of Ramanujan,” First Plenary Lecture, *First Congress of the Mathematical Society of South East Europe (MASSEÉ)*, Borovets, Bulgaria.
26. **September 16th** “The World Digital Mathematics Library,” Special Session, First Congress of the Mathematical Society of South East Europe (MASSEÉ), Bulgaria.

27. **September 17th** “Three Open Questions,” Special Session in Honour of Petar Kenderov’s 60th Birthday, First Congress of the Mathematical Society of South East Europe (MASSEÉ), Bulgaria.
28. **October 10th** “The Life of Pi,” Colloquium, Dalhousie University.
29. **October 14th** “The AGM Continued Fraction of Ramanujan,” Colloquium, Reed College, Oregon.
30. **October 21st** “Plausible Reasoning in the 21st Century.” Royal Society Lecture Series. Simon Fraser University.
31. **October 23rd** “Mathematics by Experiment: Plausible Reasoning in the 21st Century.” Colloquium, University of Northern British Columbia.
32. **October 30th** “The Life of Pi,” Colloquium, University of Regina.
33. **October 31st** “Mathematics by Experiment: Plausible Reasoning in the 21st Century.” Colloquium, University of Saskatchewan.
34. **November 27th** “Advanced Collaboration and Grid Computation,” Presentation to the SFU Board of Governors.

12.19 2004

1. **January 6th** “Advanced Collaboration and Grid Computation,” Plenary Lecture, North American Knowledge Management Meeting, Phoenix.
2. **January 28th** “Experimentation in Mathematics,” Graduate Seminar, Mathematics Department, Dalhousie.
3. **January 29th** “Advanced Collaboration and Grid Computation,” Seminar, Dalhousie Faculty of Computer Science.
4. **March 4th** “Ramanujan’s AGM Continued Fractions and Dynamics: the real case,” Colloquium, Mathematics Department, Dalhousie.
5. **March 10th** “Ramanujan’s AGM Continued Fractions and Dynamics: the complex case,” Analysis Seminar, Mathematics Department, Dalhousie.
6. **March 11th** “Maximizing Surprise,” Informal AARMS Workshop, Dalhousie Faculty of Computer Science.
7. **March 12th** “Advanced Collaboration and Grid Computation,” Informal AARMS Workshop, Dalhousie Faculty of Computer Science.
8. **March 29th** “Experimentation in Mathematics,” Opening Lecture, Workshop on Experimental Mathematics, Oakland, March 29–30.
9. **April 5th** “Decomposition of Monotone Operators,” Workshop on Control, Set-Valued Analysis and Applications University of French Antilles and Guyana, April 5–8.
10. **May 8th** “Experimentation in Mathematics,” Plenary Lecture, East Coast Computer Algebra Day, Wilfred Laurier University.
11. **May 14th** “A Single Function Variational Principle and Applications,” Large Scale Non-linear and Semidefinite Programming Workshop, University of Waterloo, May 12–15.
12. **June 2nd** “Mathematics by Experiment,” Opening Lecture, Discovery by Computer GERAD-DIMACS Workshop, Montreal, June 2–5.

13. **June 13th** “Advanced Computing in Canada” Presentations on the Long Range Plan for Advanced Computing in Canada to the CMS Development Group and to the Board, CMS Summer Meeting, Halifax.
14. **June 14th** “David Borwein and Me: a Chronology,” CMS Summer Meeting, Halifax.
15. **June 25th** “Plausible Reasoning in the 21st Century I & II,” NSF Undergraduate Research Experience Lectures, Clemson University, South Carolina.
16. **June 28th** “Advanced Collaborative Environments and the Access Grid,” 4th European Math Congress, Stockholm (delivered by Alf van der Poorten).
17. **July 9th** “Plausible Reasoning in the 21st Century,” Regular Lecture, ICME10, Copenhagen, July 5–11.
18. **July 9th** “The work of the CEIC,” Presentation to ICMI General Assembly, ICME10, Copenhagen, July 5–11.
19. **July 15th** “Bumps, Slices and Cusps,” Plenary Lecture on Nonsmooth Analysis, First Franco-Canadian Math Meeting, Toulouse, July 12–15.
20. **August 27th** “Ramanujan’s AGM Continued Fractions and Dynamics,” Workshop on Analytic and Computational Number Theory, August 23–27, Dalhousie.
21. **September 11th** “Bumps, Slices and Cusps,” Sixth Midwest Optimization Seminar, Plenary Talk, Wayne State, September 11.
22. **October 1st** “Plausible Reasoning in the 21st Century,” Colloquium, St Francis Xavier University.
23. **October 1st** “Advanced Collaborative Environments,” Colloquium, St Francis Xavier University.
24. **October 4th** “Plausible Reasoning in the 21st Century,” Acadia Symposium on Modelling and Computation, Acadia University.
25. **October 24th** “Plausible Reasoning in the 21st Century,” Maritime Teachers Association, New Glasgow, Nova Scotia.
26. **November 4th** “Advanced Scientific Collaboration Environments and the Access Grid,” Computer Science Colloquium, University of Saskatchewan.
27. **November 4th** “Advanced Computing in Canada,” Presentations on the Long Range Plan for HPC in Canada, University of Saskatchewan.
28. **November 5th** “Advanced Computing in Canada,” Presentations on the Long Range Plan for HPC in Canada, University of Saskatchewan.
29. **November 5th** “Surprise Maximization: Avoiding a Paradox,” Mathematics Colloquium, University of Saskatchewan.
30. **November 8th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Seminar, Dalhousie Faculty of Computer Science.
31. **December 4th** “The Atlantic Gateway to Mathematics,” First AGATE-M Annual Conference, Mount Allison University, December 3-4.
32. **December 12th** “Implications of Experimental Mathematics for the Philosophy of Mathematics,” CMS Winter Meeting, Session on History of Mathematics, McGill University.
33. **December 16th** “The Atlantic Gateway to Mathematics,” presentation to Nova Scotia Provincial Mathematics Team Meeting.

12.20 2005

1. **January 6th** “Dynamics of some continued fractions originating with Ramanujan,” Special Session on *Dynamical Systems*, Combined Mathematics Meetings, Atlanta.
2. **January 7th** “Maximum Entropy Methods and (Non-) convex Programming,” Special Session on *Nonsmooth Analysis and Imaging*, Combined Mathematics Meetings, Atlanta.
3. **January 7th** “Philosophical Implication of Experimental (Computational) Mathematics,” Philosophy of Mathematics, Invited Presentation, MAA, Atlanta.
4. **January 26th** “Philosophical Implication of Experimental (Computational) Mathematics,” Honours Seminar, Mathematics Department, Dalhousie.
5. **March 2nd** “The LRP, Grid Computing and ACE’s,” Dalhousie Senate Computing and Information Technology Planning Committee (SCITPC) Presentation.
6. **March 3rd** “Mathematics by Experiment,” Dalhousie Math Circles—for High Schools.
7. **March 31st** “Mathematics by Experiment, I,” First Clifford Lecture, Tulane University, New Orleans.
8. **April 1st** “Mathematics by Experiment, II,” Second Clifford Lecture, Tulane University, New Orleans.
9. **April 1st** “(2 times) Ten Challenge Problems,” Third Clifford Lecture, Tulane University, New Orleans.
10. **April 2nd** “Apéry-type Series: a Case Study,” Fourth Clifford Lecture, Tulane University, New Orleans.
11. **April 8th** “East meets West: Collaboration goes National,” delivered over the Access Grid to the opening of IRMACS at Simon Fraser.
12. **April 15th** “Access to the Digitized Literature,” MSRI Workshop on Digitizing Mathematics, April 15-17 (with John Ball).
13. **April 20th** “The Digital Congress,” Site visit presentation, Canadian bid to hold ICM 2010 in Montreal.
14. **April 27th** “What is D-DRIVE?,” exhibit and presentation, Dymaxion Exchange, Halifax.
15. **May 6th** “The Future is Here?” Presentation to National Educational Forum, Fields Institute, May 6–8.
16. **May 16th** “High Performance Mathematics,” First Plenary, HPCS05, Guelph, May 15–18, 2005.
17. **May 17th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to HPCS05, May 15-18, 2005.
18. **May 27th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to ACOA, Halifax, NS.
19. **May 31st** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to NSERC Executive VP Ottawa.
20. **May 27th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to NRC President, Ottawa.

21. **June 10th** “High Performance Mathematics,” presentation to HPC@Dal, Dalhousie.
22. **June 10th** “High Performance Mathematics,” presentation to Media Light Paths project ‘kick off’, June 10, 2005.
23. **June 14th** “High Performance Mathematics,” Plenary Lecture, Ontario R&E Summit, Toronto, June 13–14, 2005.
24. **June 16th** “Reality Bytes,” Joint German-Austrian-AMS Meeting, Mainz, June 16–19, 2005. (Given by Martin Groetschel)
25. **July 12th** “Symbolic and Experimental Computation,” Shad Valley Afternoon in D-DRIVE.
26. **July 19th** “What is High Performance Mathematics,” Shad Valley Colloquium.
27. **August 15th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to Industry Canada, Ottawa.
28. **August 25th** “Hilbert’s Inequality and Witten’s Zeta,” Trans Canada Computational Science Seminar.
29. **September 8th** “Monotone operators as convex objects,” 6th Stability Workshop, Borevets, Bulgaria, September 5-9.
30. **September 13th** “Visualisation and Other Mathematical Learning Tools,” TransCanada Computational Science Seminar.
31. **September 25th** “Monotone operators as convex objects,” Keynote talk, Fitzpatrick Memorial Meeting, Perth, Western Australia, September 25th.
32. **September 26th** “What is High Performance Mathematics,” First Plenary Lecture, Australian Math Society Meetings, Perth, Western Australia, September 26–30th.
33. **September 28th** “Visualisation and Other Mathematical Learning Tools,” Lecture to Teachers, Australian Math Society Meetings, Perth, Western Australia, September 26–30th.
34. **October 3rd** “The Life of Pi,” Colloquium University of Melbourne.
35. **October 4th** “The Life of Pi,” Colloquium La Trobe University, Melbourne.
36. **October 5th** “Experimental Mathematics and its Philosophical Implications,” Colloquium, Australian Mathematical Sciences Institute, Melbourne.
37. **October 13th** “What is High Performance Mathematics?” Colloquium, Department of Math and Stats, Univ of Western Michigan.
38. **October 14th** “Monotone operators as convex objects,” Keynote Address, 6th Midwest Optimization Meeting, Kalamazoo Michigan.
39. **October 28th** ‘Computational Lists and Challenges in Mathematics?’ Applied and Computational Mathematics Seminar, Dalhousie.
40. **November 1st** “AARMS” presentation, Department of Math and Stats, Univ of New Brunswick, Fredericton.
41. **November 1st** “What is High Performance Mathematics?” Colloquium, Department of Math and Stats, Univ of New Brunswick, Fredericton.
42. **November 9th** “Visualization and other tools for mathematics,” Colloquium, Statistics and Operations Research Department, University of North Carolina.

43. **November 10th** “Lists and Challenges in Mathematics?” Colloquium, Mathematics Department, Rutgers, the State University of New Jersey.
44. **November 15th** “Visualisation and Other Mathematical Learning Tools,” Dalhousie Math Circles—for High Schools.
45. **November 17st** “AARMS” presentation, Department of Math and Stats, Memorial University, St Johns.
46. **November 18th** “32 Goldbach Variations,” Analysis Seminar, Dalhousie.
47. **November 23rd** “Monotone operators as convex objects,” Colloquium, University of Lisbon.
48. **November 25th** “What is High Performance Mathematics,” Colloquium, University of Aviero.
49. **November 25th** “Maximizing Surprise,” Seminar, University of Aviero, Centre for Studies on Optimization and Control.
50. **November 26th** “Experimental Mathematics and its Philosophical Implications,” Colloquium, *Dias Abertos*, University of Porto.
51. **November 28th** “What is High Performance Mathematics?” Colloquium, University of Lisbon.

12.21 2006

1. **January 10th** First Lecture, MAA Shortcourse on Experimental Mathematics, San Antonio.
2. **January 11th** Final Lecture, MAA Shortcourse on Experimental Mathematics, San Antonio.
3. **January 20th** “Acyclic Monotone Operators,” Atlantic Analysis Days, January 20-21, Dalhousie (with H. Wiersma)
4. **January 21st** “Computer-assisted discovery and proof of generating functions for zeta functions,” Atlantic Analysis Days, January 20-21, Dalhousie.
5. **January 30th** “Monotone operators as convex objects,” Optimization Seminar, University of Waterloo.
6. **January 30th** “What is High Performance Mathematics?” Colloquium, University of Waterloo.
7. **January 31st** “Dynamics of some continued fractions originating with Ramanujan,” Number Theory Seminar, University of Waterloo.
8. **March 3rd** “What is High Performance Mathematics?” Mathematics Colloquium, Acadia University.
9. **March 6th** “Advanced Collaborative Environments and Tools,” Workshop on Intelligent Computing, Dalhousie, March 6–7, 2006.
10. **March 13th** “Life of Pi,” Colloquium, Mona Campus, University of the West Indies, Kingston, Jamaica.
11. **March 24th** “High Performance Mathematics in Maple,” Seminar, MapleSoft, Waterloo.

12. **April 12th** “Engines of Discovery,” the Long Range Plan for HPC in Canada, Presentation to NSERC President and Senior Administrators, Ottawa.
13. **April 19th** “Monotone operators as convex objects,” Plenary Lecture, *Mathematics of Optimization and Decision*, Guadeloupe, April 18–21, 2006.
14. **April 24th** “Four Lectures on Variational Principles. I: Bumps, Cusps and Slices,” Spring School on Analysis, Paseky, Czech Republic.
15. **April 25th** “Four Lectures on Variational Principles. II: Monotone operators as Convex Objects,” Spring School on Analysis, Paseky, Czech Republic.
16. **April 26th** “Four Lectures on Variational Principles. III: Decompositions of Monotone Operators,” Spring School on Analysis, Paseky, Czech Republic.
17. **April 26th** “What is High Performance Mathematics?” Colloquium, Spring School on Analysis, Paseky, Czech Republic.
18. **April 28th** “Four Lectures on Variational Principles. IV: Chebyshev Sets and Proximity,” Spring School on Analysis, Paseky, Czech Republic.
19. **May 16th** “Effective Error Bounds for Euler-Maclaurin-Based Quadrature Schemes,” HPCS 06, Memorial University, Newfoundland.
20. **May 17th** “Collaborative Environments,” Panel Discussion HPCS 06, Memorial University, Newfoundland.
21. **May 24th** “Mathematics and Plausible Reasoning”, ISM, Graduate Student Conference, Laval. May 23-25, 2006.
22. **May 26th** “Effective Error Bounds for Euler-Maclaurin-Based Quadrature Schemes,” Computer Science Seminar, University of Saskatchewan.
23. **May 30th** “Advanced Collaborative Environments,” Symposium on the Computer: the once and future medium for the social sciences and humanities, York University, Toronto, May 30.
24. **June 16th** “High Performance Mathematics and its Management,” Colloquium, Information Technology Laboratory, NIST, Washington.
25. **June 28th** “Advanced Collaborative Environments,” presentation to Canadian International Olympiad Team, Dalhousie.
26. **Sept 28th** “The long-range plan for advanced computing in Canada,” presentation to Petter Nicholson, President Council of Canadian Academies (CCA), Ottawa.
27. **October 5th** “Maximum Entropy Methods and (Non-) convex Programming,” Plenary talk *Atlantic Optimization Days*, Fredericton, Oct 5–6.
28. **October 10th** “Notes from, the digital trenches: the work of the CEIC,” C2C Seminar, from D-DRIVE.
29. **October 25th** “Experimental Math and Extreme Quadrature, I,” Analysis Seminar, D-DRIVE, Dalhousie.
30. **November 1st** “Experimental Math and Extreme Quadrature, II,” Analysis Seminar, D-DRIVE, Dalhousie.
31. **November 25th** “Backing up the planet,” interview on *Quirks and Quarks*, CBC Radio One.

32. **November 27th** “High Performance Mathematics and its Management,” Colloquium, Dept. of Math and Stats, York University, Toronto.
33. **December 3rd** “High Performance Mathematics and its Management,” Colloquium, AMSI Access Grid Conference, La Trobe University, Melbourne (given over Access Grid).
34. **December 8th** “High Performance Mathematics and its Management,” IMA Hot Topics Workshop, *The Evolution of Mathematical Communication in the Age of Digital Libraries*, December 8–9.
35. **December 10th** “Maximality of Sums of Monotone Operators,” Special Session on Functional Analysis,” Special Session on Functional Analysis, CMS Winter Meeting, December 9–11.

12.22 2007

1. **January 5th** “Computer-assisted Discovery and Proof of Generating Functions for Riemann’s Zeta ,” First Lecture, MAA Special Session on Experimental Mathematics.
2. **January 30th** “Effective Laguerre Asymptotics, I” Dalhousie Analysis Seminar.
3. **February 4th** “The Book of Lawrence: a Serious Satire,” presentation, Halifax Unitarian Universalist Assembly.
4. **February 5th** “AARMS: Past, Present and Future,” Colloquium, Dept of Math and Stats, Dalhousie.
5. **February 8th** “The C2C Seminar and Remote Mathematical Collaboration,” presentation with M. Macklem to *e+Calculus Conference* Lisbon, Portugal.
6. **February 10th** “What’s New, What’s Possible, What’s Coming?” Dalhousie Open House, Dalhousie FCS.
7. **February 14th** “Effective Laguerre Asymptotics, II” Dalhousie Analysis Seminar.
8. **March 14th** “The Life of Pi – a Talk for Pi Day,” Analysis Seminar, Dalhousie.
9. **March 29th** “Finding Funding in the Sciences,” Interdisciplinary PhD Presentation, Dalhousie.
10. **March 30th** “Three Convexity Results,” Second Annual AARMS Analysis Days, in honour of Tony Thompson, Dalhousie, March 30–31.
11. **April 26th** “Setting the Stage,” opening presentation to Workshop on *Math Knowledge Management: Sustainability, Scalability, and Interoperability.*, Dalhousie, April 26–28, 2007.
12. **May 13–16** “The C2C Seminar: Five Years of Experience with the Access Grid,” *HPCS07*, University of Manitoba.
13. **June 8** “Some convexity results a Jon or a Thompson might like,” 65th Birthday Colloquium lecture for Jon Thompson, (Inter-Campus Seminar Day), University of New Brunswick.
14. **June 12** “Interdisciplinary research: What works, what doesn’t,” Keynote address, 2007 Faculty Research Day, Dalhousie Faculty of Management.
15. **July 12** “Collaborative Technology: High Performance Mathematics and its Management,” AARMS/ACENet/MITACS Summer Workshop on High Performance Computing in the Mathematical Sciences, Acadia University, Wolfville, NS, July 9-12.

16. **July 16–20** *MAA Summer Seminar*: Ten lectures on “Experimental Mathematics in Action,” Carleton College, Northfield, MN.
17. **July 27** “Effective Computation of Bessel Functions,” 8th Bluenose Numerical Analysis Days, St Marys University, Halifax.
18. **August 11** Five hour Short Course on “Experimental Mathematics with Variational Applications,” ICCOPT 2007, McMaster University.
19. **September 19** “Introduction to Experimental Mathematics,” Honours Seminar, Dalhousie Mathematics Department.
20. **September 26** “Introduction to Experimental Mathematics,” Colloquium, Okanagan Community College.
21. **September 27** “Some of my Favourite Convexity Results,” OCANA Seminar, Dept of Mathematics, Statistics and Physics, UBCO, Kelowna, BC.
22. **September 28** “Introduction to Experimental Mathematics: Insight through Computation,” Interdisciplinary Colloquium, IRMACS, Simon Fraser University.
23. **October 23**, “Interdisciplinarity: what works, what doesn’t.” Colloquium, University of Newcastle, NSW, Australia.
24. **October 25**, “Some of my Favourite Convexity Results,” Math Colloquium, University of Newcastle, NSW, Australia.
25. **November 15** “Experimental Discovery and Proof of Identities”, Chaitin 60th Birthday Symposium, IBM Watson Centre, Yorktown, New York.
26. **November 16** “Introduction to Experimental Mathematics: Insight through Computation,” Applied Mathematics Colloquium, Cornell University.
27. **November 19**, “Some of my Favourite Convexity Results,” Applied Nonlinear Optimization Day, CORS and Ddrive, Dalhousie.
28. **December 9** “Experimental Discovery and Proof of Generating Functions”, Special session on *Algorithmic Challenges in Polynomial and Linear Algebra* CMS Winter Meeting, UWO, London Ontario.
29. **December 12** “Math: What’s New, What’s Possible, What’s Coming?” Talks to Grade nine and ten students at AB Lucas Secondary School, London, Ontario.

12.23 2008

1. **January 6** “Effective Computation of Bessel Functions,” SIAM-AMS Special Session on Special Functions, Combined Membership Meetings, San Diego, Jan 6–9, 2008.
2. **March 6** “The computer as crucible: an introduction to experimental mathematics,” Physics Colloquium, University of Newcastle, NSW.
3. **March 14** “Life of Pi: a Talk for Pi Day,” AMSI Access Grid Colloquium, Australia.
4. **March 15** “Life of Pi: a Talk for Pi Day,” IRMACS Access Grid Colloquium, Simon Fraser University, Canada.
5. **April 21** CEIC Presentation to IMU Executive, Hungarian Academy of Science, Budapest.
6. **May 14** “Peter Borwein Revisited: A Brother’s Retrospective,” IRMACS Conference celebrating Peter Borwein’s 55th Birthday, Simon Fraser University, Canada, May 12-16, 2008.

7. **July 3** “Proximity and Chebyshev sets,” Analysis Seminar, University of Newcastle, Australia.
8. **August 13** “Math: What’s New, What’s Possible, What’s Coming?” ICE-EM/ICE day from Victoria University, presented from Wollongong Access Grid Room.
9. **August 20** “My experiences with mathematical software,” Seminar, Dept of Mathematics, University of Newcastle, NSW.
10. **September 29** “Maximum Entropy Methods for Inverse Problems,” Colloquium, Dept of Mathematical Sciences, RMIT, Melbourne, Australia.
11. **September 30** “Computer-assisted discovery and proof,” Colloquium, Dept of Mathematics and Statistics, University of Melbourne.
12. **October 1** “Math: What’s New, What’s Possible, What’s Coming?” Colloquium, Dept of Mathematical Sciences, RMIT, Melbourne, Australia.
13. **November 13** “Computer-assisted discovery and proof: Part I,” Colloquium, Dept of Mathematics, ANU, Canberra, Australia.
14. **November 14** “Computer-assisted discovery and proof: Part II,” Colloquium, Dept of Mathematics, ANU, Canberra, Australia.
15. **November 29** “Future Challenges for Variational Analysis,” Plenary Lecture (presented by Andrew Eberhard), Conference on *Variational Analysis and Nonlinear Optimization*, Sun-Yat-Sen University, Taiwan, November 28-30.
16. **December 4** “The past 60 years in Mathematics,” Colloquium, Dept of Mathematics, University of Auckland, NZ.
17. **December 9** “Some of my Favourite Convex Functions,” NZIMA Plenary Lecture, 7th NZ-AustMS Joint Meeting, ANZMC2008, Christchurch, NZ, December 8–12.
18. **December 10** “Future Challenges for Variational Analysis,” Plenary Lecture in Special Session on *Nonlinear Optimization and Applications*, 7th NZ-AustMS Joint Meeting, ANZMC2008, Christchurch, NZ, December 8–12.
19. **December 11** “Digitally-assisted Discovery and Proof,” Invited lecture in Special Session on *University Mathematics Education, Teaching and Learning*, 7th NZ-AustMS Joint Meeting, ANZMC2008, Christchurch, December 8–12.

12.24 2009

1. **February 20** “High Precision, High Dimension Integration,” Third International Workshop on High Dimensional Approximation, UNSW, February 16-20 (with D.H. Bailey): awarded *most entertaining presentation* prize.
2. **February 12** “Maximum Entropy and Projection Methods for Inverse Problems,” CARMA Colloquium, University of Newcastle.
3. **April 25** “Prospects for Remote Collaboration,” IRMACS Retreat on Remote Collaboration, April 24–25, Simon Fraser University. Delivered from Newcastle NSW.
4. **April 30** “Prospects for Remote Collaboration,” First *AMSI-SIGopt Seminar*. Delivered to RMIT and USA from Newcastle NSW.
5. **May 7** “Digitally-assisted mathematical discovery and proof,” CARMA Colloquium, University of Newcastle.

6. **May 11** “Digitally-assisted mathematical discovery and proof,” Plenary address, ICMI Study 19, ”On proof and proving,” Conference, National Taiwan Normal University, May 10-15.
7. **May 14** “Digitally-assisted mathematical discovery and proof,” Responses to Plenary address, ICMI Study 19, ”On proof and proving,” Conference, National Taiwan Normal University, May 10-15.
8. **May 28** “The SIAM 100 Digits Challenge: a Story of Modern Numerical Analysis,” CARMA Colloquium, University of Newcastle.
9. **June 15** “International Mathematics in the 21st Century,” Minisymposium in honour of Phil Broadbridge’s retirement as Director of AMSI, University of Melbourne, June 15.
10. **June 25** “How to maximize surprise,” *AMSI-SIGopt Seminar*. Delivered to RMIT and USA from Newcastle NSW.
11. **June 29** “Ten Lectures on Variational Approaches to Minimization Problems: *Motivation and Overview*,” IMA 2009 Summer Program for Graduate Students on *The Mathematics of Inverse Problems*, University of Delaware.
12. **June 30** “Ten Lectures on Variational Approaches to Minimization Problems: *Convex Duality and Applications*,” IMA 2009 Summer Program for Graduate Students on *The Mathematics of Inverse Problems*, University of Delaware.
13. **July 1** “Ten Lectures on Variational Approaches to Minimization Problems: *Variational Principles and Applications*,” IMA 2009 Summer Program for Graduate Students on *The Mathematics of Inverse Problems*, University of Delaware.
14. **July 2** “Ten Lectures on Variational Approaches to Minimization Problems: *Monotone and Nonexpansive Maps: algorithms and convergence*,” IMA 2009 Summer Program for Graduate Students on *The Mathematics of Inverse Problems*, University of Delaware.
15. **July 3** “Ten Lectures on Variational Approaches to Minimization Problems: *Algebraic Reconstruction Methods and Interactive Geometry (and a final lecture on Surprise)*,” IMA 2009 Summer Program for Graduate Students on *The Mathematics of Inverse Problems*, University of Delaware.
16. **July 9** “Integer Relation Methods: an Introduction,” Special Session on Scientific Computation, First Pacific Rim Conference on Mathematics and Applications (PRIMA), UNSW, Sydney, July 6-10, 2009.
17. **August 11** “Introduction to CARMA,” Presentation to students from Dungog High School in CARMA.
18. **August 20** “Hilbert Inequalities and Witten Zeta Functions,” *AMSI-SIGopt Seminar*. Delivered to RMIT and USA from Newcastle NSW.
19. **Sept 15** “Exploratory Experimentation and Computation.” Colloquium, Mathematics Dept, University of Victoria, BC, Canada.
20. **Sept 23** “Exploratory Experimentation and Computation.” Plenary lecture Fields-IRMACS Workshop on *Discovery and Experiment in Number Theory*, Simon Fraser University and Toronto, Sept 22-26.
21. **Sept 29** “Inverse Symbolic Computation: Symbols from Numbers.” *Education Afternoon*, 53rd Annual Australian Mathematical Society Meetings, University of South Australia, Sept 28-Oct 1.

22. **Sept 29** “Fifty Years of Maximal Monotonicity.” Plenary lecture for *Optimization Theory and Methods* Special Session, 53rd Annual Australian Mathematical Society Meetings, University of South Australia, Sept 28-Oct 1.
23. **Oct 31** “Fifty Years of Maximal Monotonicity,” Session on Functional Analysis, University of Newcastle, Official Opening and Workshop Oct 30-Nov 1.
24. **Nov 9** “The Computer as Crucible: The End of Theory?” Second Annual Rubinov Memorial Lecture, University of Ballarat, Victoria.
25. **Nov 11** “Innovation and Creativity or Managing a Research Portfolio?” Keynote Address, Annual Research Day, University of Ballarat, Victoria.
26. **Nov 19** “Compressed Sensing: A Subgradient Descent Algorithm for Missing Data Problems,” CARMA Colloquium, Newcastle.
27. **Nov 29** “Integer Relation Algorithms, I.” CARMA Number Theory Seminar.
28. **Dec 5** “Why Convex?” Plenary Lecture, CMS Winter Meeting, Windsor, Ontario, December 5-7.
29. **Dec 6** “The future of variational analysis.” Keynote Lecture, Special session on *Convex and nonlinear analysis*, CMS Winter Meeting, Windsor, Ontario, Dec. 5-7.

12.25 2010

1. **Jan 20** “Integer Relation Algorithms, II.” CARMA Number Theory Seminar.
2. **Jan 28** “Douglas-Rachford iterations in the absence of convexity.” CARMA Colloquium.
3. **Feb 1** “Douglas-Rachford iterations in the absence of convexity.” ANZIAM-SigmaOpt Session, Queenstown NZ, February 1–4.
4. **March 8** “Exploratory Experimentation and Computation.” First Plenary Lecture, 2010 German Math Society Meetings (joint with Mathematical Education), Munich, March 8–12.
5. **March 10** “Why Convex?” Colloquium, Universitaet der Bundeswehr Muenchen.
6. **March 15** “Life of Pi: a Talk for Pi Day.” Newcastle Undergraduate Mathematics Club.
7. **March 19** “32 Goldbach Variations.” CARMA Colloquium and Number Theory and Analysis Seminar, University of Newcastle.
8. **March 29** “Maximum Entropy and Projection Methods for Inverse Problems.” Distinguished Lecture Series, Mathematics Dept, University of South Australia.
9. **March 30th** General interview on *Newcastle Drive*, ABC Radio Newcastle.
10. **March 31** “Multiple Zeta Values.” CARMA Number Theory and Analysis Seminar, University of Newcastle.
11. **April 16** “Random Walks and Ramble Integrals.” Analysis Seminar, University of Adelaide.
12. **April 16** “Exploratory Experimentation and Computation.” Mathematics Department Colloquium, University of Adelaide.
13. **April 20** “Alternating Projection Algorithms in Hilbert Space, I.” CARMA Analysis and Optimization Seminar, University of Newcastle.

14. **April 27** “Alternating Projection Algorithms in Hilbert Space, II.” CARMA Analysis and Optimization Seminar, University of Newcastle.
15. **June 2** “High precision computation in mathematical physics and dynamics.” *AMSI-SIGopt Seminar*. Delivered to ANU, UWA, RMIT and USA from Newcastle NSW.
16. **June 22** “Douglas-Rachford iterations in the absence of convexity.” Clemson Research Experience for Undergraduates, presented from Newcastle.
17. **June 28** “An introduction to CARMA.” University of Newcastle 2010 Teachers’ Visit Day, presented inside CARMA.
18. **July 9** “The arithmetic of 3 and 4 step random walks.” Keynote Lecture, AMSI-CARMA Workshop on Exploratory Experimentation and Computation Theory, CARMA, July 7–9.
19. **August 12** “Moments of Ramanujan’s Generalized Elliptic Integrals and Extensions of Catalan’s Constant.” CARMA Colloquium, University of Newcastle.
20. **August 31** “Maximum Entropy and Projection Methods for Inverse Problems.” Plenary Lecture, Second South Pacific Conference on Mathematics, University of New Caledonia, Nouméa.
21. **September 15** “Closed forms: what they are and why they matter.” Part I, CARMA Number Theory seminar.
22. **September 22** “Closed forms: what they are and why they matter.” Part II, CARMA Number Theory seminar.
23. **September 24** “Fractal postcards and coke cans”, presentation to West Wallsend High School students in CARMA.
24. **September 28** “Compressed Sensing: a Subgradient Approach” Special session on Optimization, 54th Australian Math Society Meetings, September 27-30, 2010.
25. **September 28** “Life of Pi.” Public Lecture, 54th Australian Math Society Meetings, September 27-30, 2010.
26. **September 30** “Short Walks and Ramble Integrals: The Arithmetic of Uniform Random Walks.” Plenary Lecture, 54th Australian Math Society Meetings, September 27-30, 2010.
27. **October 3** “Douglas-Rachford iterations in the absence of convexity.” Keynote Lecture, AMSI-CARMA Workshop on Applied Functional Analysis, CARMA, October 2–4.
28. **October 19** “Introduction to CARMA and fractals” (with Michael Rose). BOOST + on campus high school visit to Univ of Newcastle.
29. **October 20** “Thirty Two Goldbach Variations.” CARMA Workshop on Multi-zeta Values, University of Newcastle, Oct. 20.
30. November 4 “Ramanujan’s AG continued fraction, I: the real case.” CARMA Colloquium
31. November 4 “Ramanujan’s AG continued fraction, II: the complex case.” CARMA Number Theory Seminar.

12.26 2011

1. **Jan 7** “Exploratory Experimentation and Computation.” AMS Special Session in Logic and Analysis, Combined Membership Meetings, New Orleans.
 2. **Jan 9** “Douglas-Rachford iterations in the absence of convexity.” AMS Special Session on Douglas-Rachford Methods, Combined Membership Meetings, New Orleans.
 3. **Jan 9** “Short Walks and Ramble Integrals: The Arithmetic of Uniform Random Walks.” AMS Special Session on Special Functions, Combined Membership Meetings, New Orleans.
 4. **Jan 11** “Moments of Ramanujan’s Generalized Elliptic Integrals and Extensions of Catalan’s Constant.” Number Theory Seminar, Mathematics Dept, University of Florida.
 5. **Jan 11** “Ramanujan’s AG continued fraction.” Colloquium, Mathematics Dept, University of Florida.
 6. **Jan 12** “Life of Pi.” Graduate Colloquium, Mathematics Dept, University of Florida.
 7. **Jan 29** “Difference Convex Functions,” Workshop on Continuous Optimization, Univ of South Australia.
 8. **Feb 1** “Compressed Sensing: a Subgradient Approach.” Special Session on Optimization, ANZIAM 2011.
 9. **Feb 16** “Fractal Geometry.” Presentation to Year 7 students from Wallsend with Michael Rose to the NSW MEGS program (Making Educational Goals Sustainable).
 10. **March 14** “Life of Pi: History and Computation — a Talk for Pi Day.” University of Technology Sydney.
 11. **March 14** “Life of Pi: History and Computation — a Talk for Pi Day.” Interviews with ABC Sydney, Goldcoast and Tasmania/Victoria.
 12. **March 15** “Life of Pi: History and Computation — a Talk for Pi Day.” AMSI AGR Talk for PiDay in America.
 13. **March 16** “Short Walks, Mahler Measures and Logsine Integrals, I.” CARMA Seminar.
 14. **March 23** “Short Walks, Mahler Measures and Logsine Integrals, II.” CARMA Seminar.
 15. **April 26** “CARMA and Me: An Introduction.” CDSC-CARMA-CISRA (Canon Information Systems Research Australia) afternoon, CARMA.
 16. **May 4** “CARMA and Me” New Fellows Seminar, Australian Academy of Science, Shine Dome, Canberra.
 17. **May 17** “CARMA and Me: or Why am I in Oz?” JonFest 2011, IRMACS, Simon Fraser University, 16-20 May.
 18. **May 23** “BBP numbers and digit-extraction algorithms.” CARMA Seminar.
 19. **June 4** “Mysteries of the Mathematical Universe.” World Science Festival Panel, New York. Panel shared with Devlin, de Sautoy, Singh.
 20. **June 7** “Measures, Walks and Integrals: a Study in Hybrid Computation.” First Plenary Lecture, Numeric-Symbolic Computation 2011 FCCAR Meetings), San Jose.
 21. **June 30** “CARMA and Me: or Why am I in Oz?” Two presentations to 2011 Teachers’ Visit Day, University of Newcastle.
- July 8** “Maximum Entropy and Projection Methods for Inverse Problems.” Plenary Lecture, EUROPT 2011, University of Ballarat, Victoria.

22. **July 18** “Are Pi’s days numbered?” Interview with ABC Goldcoast.
23. **July 19** “CARMA and Me: An Introduction.” First CARMA Retreat, Shortland Wetland.
24. **Sept 6** “A Sinc that Sank.” CARMA Analysis Seminar, Newcastle.
25. **Sept 27** “Measures, Walks and Integrals: a Study in Hybrid Computation.” Keynote Lecture, AustMS Special Session on Computational Mathematics (presented by James Wang) 2011 AustMS Meetings, Wollongong Sept 26-29.
26. **Sept 29** “Teaching and Researching at the Tertiary Level with Collaboration Tools.” Plenary Lecture, ALTC Workshop, 2011 AustMS Meetings, Wollongong Sept 29-30.
27. **October 15** “Douglas-Rachford iterations in the absence of convexity.” Plenary Lecture (given from Newcastle), 13th Midwest Optimization Meeting and Workshop on Large Scale Optimization and Applications, Fields Institute, October 14-15.
28. **November 3** “Actually: Teaching and Researching at the Tertiary Level with Collaboration Tools.” CARMA Colloquium.
29. **November 29** “Meetings with Computer Algebra and Special Functions: A Ramanujan Style Talk.” Plenary Lecture at JonFest Down Under, CARMA-AMSI Workshop, Nov 29–Dec 1, Newcastle.

12.27 2012

1. **January 31** “Recent Progress on Maximal Monotonicity.” ANZIAM 2012, Warrnambool, Victoria.
2. **March 14** “Pi Day Interview.” ABC Radio Queensland.
3. **March 15** “Pi Day in America.” Conference in Honour of Alf van der Poorten, CARMA, Newcastle.
4. **March 16** “Walks, Measures and Integrals.” Conference in Honour of Alf van der Poorten, CARMA, Newcastle.
5. **March 22** “The Use of Selection Theorems in Optimization. Part I Theory.” CARMA/SigmaOPT seminar, Newcastle.
6. **March 29** “The Use of Selection Theorems in Optimization. Part II Applications.” CARMA/SigmaOPT seminar, Newcastle.
7. **May 1** “Computation and Theory of Mordell-Witten-Tornheim sums. Part I Theory.” CARMA Analysis seminar, Newcastle.
8. **May 8** “Computation and Theory of Mordell-Witten-Tornheim sums. Part II Computation.” CARMA Analysis seminar, Newcastle.
9. **May 14** “Arithmetic aspects of short random walks.” Experimental
10. **May 15** “My experiences with special functions.” Colloquium, University of Melbourne.

13 Additional information

Additional information and material is to be found on my Web Site: www.carma.newcastle.edu.au/~jb616, at www.experimentalmath.info and at <http://experimentalmath.info/blog/>