

# Jonathan Borwein: Curriculum Vitae

Jonathan M. Borwein\*

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## 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 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

**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 (NZIMA), 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>. 2011

Finalist in NSF *International Science & Engineering Visualization Challenge 2012* (SciVis) as one of the top 10 in the visualization category (<https://nsf-scivis.skild.com/skild2/nsf2012/viewEntryVoting.action>) for a 100 billion step Walk on Pi, see <http://carma.newcastle.edu.au/walks/> 2012.

**2013 Mathematical Programming Special Issue**: in honour of 60th birthday. *Computational and Analytical Mathematics*, Volume 139, Issue 1-2, June 2013. ISSN: 0025-5610 (Print) 1436-4646 (Online). See <http://link.springer.com/journal/10107/139/1/page/1>. (19 articles) June 2013.

**2013 JonFest Volume**, *Computational and Analytical Mathematics: In Honor of Jonathan Borweins 60th Birthday* (Editors: David H. Bailey, Heinz H. Bauschke, Peter Borwein, Frank Garvan, Michel Théra, Jon Vanderwerff, Henry Wolkowicz), Springer Proceedings in Mathematics & Statistics, volume 50. August 2013.

**2014 G. de B. Robinson Prize** of the CMS for J. Borwein, A. Straub, J. Wan and W. Zudilin, with an Appendix by Don Zagier, “Densities of short uniform random walks.” *Canadian. J. Math.* **64** (5), (2012), 961–990. For the best paper in the CJM in 2011 or 2012.

**2014 Inaugural Member IMU Circle** The members of the IMU Circle are mathematicians who have given sustained and distinguished contributions to the International Mathematical Union (IMU). Their nomination to the IMU Circle is a recognition of their commitment to IMU and a token of appreciation by IMU for their valuable service, support and advice.

**2015 Fellow of the American Mathematical Society**, announced November 2014.  
“For contributions to nonsmooth analysis and classical analysis as well as experimental mathematics and visualization of mathematics.”

See more at: <http://www.ams.org/profession/ams-fellows/new-fellows#sthash.WhdqY8nV.dpuf>

**Fellow of the Royal Society of NSW**, elected June 2015.

**Western University Distinguished Scholar in Residence for 2016** April–August 2016.

### 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, Univ. 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.  
**2011–2013** Distinguished Professor, King Abdulaziz University, Jeddah, Saudi Arabia.  
**2016** The Distinguished Scholar in Residence (April-July), Western University, London Ontario, Canada.  
**2013–** Adjunct Professor, Department of Economics, Chiang Mai University, Thailand.

### 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, National 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.  
**2004–2008** 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](http://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 (SIG-MAopt).  
**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.  
**2011–15** Chair, Christopher Heyde Medal and A K Head Travelling Scholarship Selection Committee, Australian Academy of Science.  
**2012** Member, Research Evaluation Committee (MIC), Excellence in Research for Australia (ERA-12).  
**2012–** Member, Research Centres Subcommittee, Mathematical Sciences Decadal Plan.  
**2014–16** Incoming Chair, 2014 and Chair 2015, Gavin Brown Prize Committee of the Australian Mathematical Society.

### 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](http://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](http://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/](http://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*, gatrlick 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 and V. Moll (since 2014), *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 an ego-driven 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/jonathan-m-borwein/>.  
**June 2012 – June 2019** Co-editor in chief with George Willis, *Journal of the Australian Mathematical Society*.  
**Nov 2015** – Editorial Board, *SIAM J. Optimization*.  
**2016**– Editorial Board, *Pure and Applied Functional Analysis*, see <http://www.ybook.co.jp/pafa/FLASH/index.html>.

### 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.

**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).

**2011–13** Director *ANZIAM 2013*, Feb 3–7, Newcastle.

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

**2012** 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 Meeting 2013. Sydney, Sept 30 - Oct 3, 2013.

**2013–14** Organizer (with DH Bailey) NSF–ICERM Workshop on “Challenges for 21st Century Experimental Mathematical Computation.” Providence RI, July 21–25, 2014. (<http://icerm.brown.edu/tw14-5-cemc>).

**2013–15** Conference Program Advisory Board, AustMS Meeting 2015. Flinders University, September 2015.

**2014**- Prize Committee Member, Mathematical Prize of Bulgarian Academy of Science.

**2013–15** Conference co-organizer, South Pacific Continuous Optimization Meeting. University of South Australia, February 6–9, 2015.

**2014–15** Conference Program Committee, International Conference on Variational Analysis and Optimization in honour of Terry Rockafellar’s 80th birthday, University of Limoges, May 18–22, 2015.

**2014–16** Scientific Committee, 7th International Seminar on Optimization and Variational Analysis (OVA7), Alicante University, June 2–3, 2016. (In honour of Michel Thera turning 70.)

**2016–17** Scientific Committee, 7th Workshop on High-Dimensional Approximation, UNSW Sydney, Australia, February 13–17, 2017.

### 3.5 Citation index information

Summary of roughly 380 papers and 100 proceedings:

- **Highly Cited Researchers Database** (ISI) <http://isihighlycited.com>, May 2002.

As of August 1st, 2016:

1. *ISI Web of Knowledge* lists over **6,593** citations from **351** items with *h-index* of **40**: one paper has at least 666 citations, another 616 and nine have been cited over 106 times, 53 more than thirty times and 75 at least 20 times.
2. *Scopus* lists over **5,451** cites from **321** items with *h-index* of **34**: one paper has at least 704 citations, another 697 with four more over 110 cites (unlike ISI, the database is only complete for titles since 1996).
3. *Mathematical Reviews* Citation Database lists over **5,751** cites with *h-index* of **35** (unlike ISI, the database includes books; some titles are only compiled since 1997 or 2000).
4. *Google Citation Tracker* finds over **22048** citations with four over 1174 cites, 45 cited over 100 times and *h-index* of **69**.

**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	<b>78</b>	475793	<b>69</b>	516665	<b>78</b>	554332	<b>80</b>	574859	<b>90</b>	584330	<b>78</b>	589762	<b>76</b>
Biomedical research	<b>78</b>	460148	<b>67</b>	518304	<b>78</b>	562361	<b>81</b>	572122	<b>89</b>	594596	<b>79</b>	568328	<b>73</b>
Biology	<b>8</b>	52535	<b>8</b>	57825	<b>9</b>	58649	<b>8</b>	58130	<b>9</b>	56981	<b>8</b>	57899	<b>7</b>
Chemistry	<b>15</b>	88010	<b>13</b>	96827	<b>15</b>	105960	<b>15</b>	105762	<b>16</b>	110927	<b>15</b>	109703	<b>14</b>
Physics	<b>19</b>	137922	<b>20</b>	141653	<b>21</b>	138417	<b>20</b>	131958	<b>21</b>	125968	<b>17</b>	120593	<b>15</b>
Earth/space sciences	<b>9</b>	55086	<b>5</b>	58818	<b>9</b>	71230	<b>10</b>	73507	<b>11</b>	83053	<b>11</b>	82614	<b>11</b>
Engineering/technology	<b>5</b>	32680	<b>5</b>	35189	<b>5</b>	33664	<b>5</b>	32958	<b>5</b>	34001	<b>5</b>	36809	<b>5</b>
Mathematics	<b>1</b>	6858	<b>1</b>	6631	<b>1</b>	6961	<b>1</b>	6418	<b>1</b>	7520	<b>1</b>	7794	<b>1</b>
Social/behavioral sciences	<b>13</b>	80282	<b>12</b>	84353	<b>13</b>	93032	<b>13</b>	93187	<b>15</b>	99481	<b>13</b>	104793	<b>13</b>

Figure 1: Citation equivalences between fields.

5. *Microsoft* produces **6,155** citations and “field reputation” of **34** (21st among mathematicians).

## 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 Mellon<sup>1</sup>

*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. 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.

<sup>1</sup>K. Kortanek, formal supervisor



*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.)

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

*Honours Thesis, Matthew Tam (2012)* Thesis title: “The Method of Alternating Projections.” University of Newcastle. Winner of 2015 B.H. Neumann Prize.

*Ph.D., James Wan (2013)* Thesis title: “Random Walks, Elliptic Integrals and Related Constants.” University of Newcastle (co-supervised with Wadim Zudilin). Winner of 2011 B.H. Neumann Prize. Now Assistant Professor at SUMD, Singapore.

*M.Sc., Matthew Skerritt (2014)* Thesis title: “Tools for Teaching Computational Mathematics.” University of Newcastle. Now PhD student Newcastle.

*Ph.D., Michael Rose (2015)* Thesis title: “Expectations over Deterministic Fractal Sets.” University of Newcastle (co-supervised with Brailey Sims).

*Ph.D., Matthew Tam (2016)* Thesis title: “Iterative Projection and Reflection Methods: Theory and Practice.” University of Newcastle (co-supervised with Brailey Sims). Now PDF in Goettingen.

#### 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 Professor, University of Goettingen.  
**2004–06** Eva Curry (Rutgers University, Harmonic Analysis, Dalhousie PDF, with K. Taylor and K. Dilcher). Now Associate 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 Bačák (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). Now Lecturer at Newcastle.  
**2011–13** Francisco Aragon Artacho (University of Alicante, Spain, Optimization, CARMA Fellow). Now RA in Systems Biochemistry Group Luxembourg Centre for Systems Biomedicine (LCSB).  
**2012–14** Liangjin Yao (UBC-O, Canada, Optimization, CARMA Fellow)  
**2013–15** Mumtaz Hussain (Univ of York, UK, UK, Number Theory, CARMA Fellow)  
**2014–17** Ohad Giladi NYU, Functional analysis, CARMA Fellow)  
**2014–16** Paul Vrbik (Western Univ, Canada, Computer Algebra, 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. J.M. Borwein, “Generalisations, Examples and Counter-examples in Analysis and Optimisation.” Special issue for Michel Théra at 70, *Set-valued and Variational Analysis*. Galleys, August 2016. <http://dx.doi.org/10.1007>
2. J.M Borwein , “Adventures with the OEIS.” Special issue in honour of Krishna Alladi at 60, *Ramanujan Journal*. Accepted June 2016.
3. D. Bailey, J. Borwein, and M. Lopez de Prado, “Stock portfolio design and backtest overfitting.” *Journal Of Investment Management*. Accepted July 2016.
4. J.M. Borwein and Scott Lindstrom, “The Lambert W Function and other Special Functions in Analysis and Optimization.” *Pure and Applied Functional Analysis*. 1(3), Galleys, June 2016.

5. J.M. Borwein, N. Calkin, S. Lindstrom, and A. Mattingly, “Continued logarithms and their associated continued fractions.” *Experimental Mathematics*. Accepted May 2016.
  6. David H. Bailey, Jonathan M. Borwein, and Jason Kimberley, “Discovery and analysis of large Poisson polynomials using the MPFUN-MPFR arbitrary precision software.” *Experimental Mathematics*. Accepted April 2016.
  7. D. Bailey, J. Borwein, R. Brent and M. Reisi, “Reproducibility in computational science a case study: randomness of the digits of Pi.” *Experimental Mathematics*. Galleys, July 2016.
  8. J.M. Borwein and O. Giladi, “Convex Analysis in Groups and Semigroups: a Sampler.” *Mathematical Programming Series B*. Online May 2016.
  9. D.H. Bailey and J.M. Borwein, “A computational mathematics view of space, time and complexity.” Prepared for *Space, Time, and Frontiers of Human Understanding*, January 2016.
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10. J.M. Borwein and O. Giladi, “Some Remarks on Locally Convex Groups.” *J. Convex Analysis*. Accepted December 2015.
  11. D.H. Bailey, J.M. Borwein, M. Lopez de Prado, and Qiji Zhu, “The probability of back-test over-fitting.” Available at <http://ssrn.com/abstract=2326253>. *Financial Mathematics*. Accepted March 2015.
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12. D. Bailey, J. Borwein, M. Lopez de Prado, A. Salehipour, and Qiji Zhu, “Backtest overfitting in financial markets.” Featured Article *The Automated Trader* **39**, Q1 (2016), 52–57.
  13. J.M. Borwein, A. Straub and C. Vignat, “Densities of short uniform random walks in higher dimensions.” *Journal of Mathematical Analysis and Applications*, **437** (1) (2016), 668–707. Available at <http://arxiv.org/abs/1508.03431>.
  14. J.M. Borwein, “A short walk can be beautiful.” *J. Humanistic Mathematics*. **6**(1) (2016), 5–28.
  15. J.M. Borwein, “A very complicated proof of the minimax theorem.” *Minimax Theory and its Applications*. **1** (1) (2016), 21–27.
  16. D.H. Bailey and J.M. Borwein, “Computation and structure of character polylogarithms with applications to character Mordell–Tornheim–Witten sums.” *Mathematics of Computation* **85** (297), (2016,) 295–324 <http://dx.doi.org/10.1090/mcom/2974>. Article electronically published on June 3, 2015. Available at <http://www.carma.newcastle.edu.au/jon/MTWIII.pdf>.
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17. F. Aragon Artacho, J.M. Borwein and M. Tam, “Global Behavior of the Douglas-Rachford Method for a Nonconvex Feasibility Problem.” *J. Global Optimization*. **60** (2016), 303–327. DOI [10.1007/s10898-015-0380-6](https://doi.org/10.1007/s10898-015-0380-6).
  18. J.M. Borwein and Joydeep Dutta, “Maximal monotone inclusions and Fitzpatrick functions.” Special issue of JOTA on *Nondifferentiable Optimization and Nonsmooth Analysis*, dedicated to Vladimir Demyanov. Online October 2015 at <http://link.springer.com/article/10.1007/s10957-015-0813-x>.
  19. J.M. Borwein and C. Sinnamon, “A closed form for the density functions of random walks in odd dimensions.” *Bull. Australian Math. Soc.* Online October 5, 2015. Ten pages [doi:10.1017/S0004972715001112](https://doi.org/10.1017/S0004972715001112).
  20. J.M. Borwein and O. Giladi, “Nearest points and delta convex functions.” *Bull. Australian Math. Soc.* Online September 4, 2015. Twelve pages [doi:10.1017/S000497271500101X](https://doi.org/10.1017/S000497271500101X).
  21. D.H. Bailey and J.M. Borwein, “Crandall’s computation of the incomplete Gamma Function and the Hurwitz Zeta Function with applications to Dirichlet L-series.” *Applied Mathematics and Computation*. **268** (2015), 462–477.
  22. David H. Bailey and Jonathan M. Borwein, “High-Precision Arithmetic in Mathematical Physics.” *Mathematics*, **3** (2015), 337–367. Available at <http://www.mdpi.com/2227-7390/3/2/337>.
  23. J.M. Borwein and Qiji (JIM) Zhu, “A variational approach to Lagrange multipliers.” Special issue of JOTA on *Nondifferentiable Optimization and Nonsmooth Analysis*, dedicated to Vladimir Demyanov. Online May 2015 <http://link.springer.com/article/10.1007/s10957-015-0756-2>. Available at <http://ssrn.com/abstract=2622227>.
  24. J.M. Borwein and Scott T. Chapman, “I Prefer Pi: A Brief History and Anthology of Articles in the American Mathematical Monthly.” *MAA Monthly*, **122**, March 2015, 195–216. Addenda **122** October 2015, 800–800.

25. Fran Aragon, Jonathan M. Borwein, and Matthew Tam, “Douglas-Rachford feasibility methods for matrix completion problems.” *The ANZIAM Journal* **55** (4) (2014), 299–326. Available at <http://arxiv.org/abs/1308.424>
  26. Jonathan M. Borwein and Matthew Tam, “The cyclic Douglas-Rachford feasibility method: behaviour on infeasible problems.” *J. Nonlinear and Convex Analysis*. 16(4) (2015), 537–584. Available at <http://arxiv.org/abs/>
  27. D.H. Bailey and J.M. Borwein, “Computation and theory of extended Mordell-Tornheim-Witten sums. Part II,” *Journal of Approximation Theory* (Special issue in honour of Dick Askey turning 80). Volume **189** (2015), 115–140. On line May 31, 2015. DOI information: [10.1016/j.jat.2014.10.004](https://doi.org/10.1016/j.jat.2014.10.004). Available at <http://www.carma.newcastle.edu.au/jon/MTW2.pdf>.
  28. Jonathan Borwein and Armin Straub, “Relations for Nielsen polylogarithms.” *Journal of Approximation Theory* (Special issue in honour of Dick Askey turning 80). **193** May (2015), 74–88. Online at <http://www.sciencedirect.com/science/article/pii/S0021904513001202>.
  29. Jonathan M. Borwein, Brailey Sims and Matthew K. Tam, “Norm Convergence of Realistic Reflection and Projection Methods.” *Optimization*. **64**, Issue 1, 2 Jan (2015), 161–178. DOI: <http://dx.doi.org/10.1080/02331934> Available at <http://arxiv.org/abs/1312.7323>.
  30. D.H. Bailey, D. Borwein and J.M. Borwein, “Eulerian Log-Gamma Integrals and Tornheim–Witten zeta functions.” *Ramanujan J.* **36** :1 (2015), 43–68: [10.1007/s11139-012-9427-1](https://doi.org/10.1007/s11139-012-9427-1).
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31. D.H. Bailey and J.M. Borwein, “The recent trademarking of Pi: a troubling precedent.” *Notices of the AMS*, **61** (10), November (2014), 121–124. <http://www.ams.org/notices/201410/rnoti-p1224.pdf>.
  32. D. Borwein and J.M. Borwein, “Deriving new sinc results from old.” *Amer. Math. Monthly*. **121**: October (2014), 700–705.
  33. Jonathan M. Borwein and Liangjin Yao, “Sum theorems for maximally monotone operators of type (FPV).” *J. Aust. Math. Soc.*, **97** (1) (201), 1–26. DOI: [10.1017/S1446788714000056](https://doi.org/10.1017/S1446788714000056). Available at <http://arxiv.org/abs/1305.6691>.
  34. D.H. Bailey, J.M. Borwein and R.E. Crandall, “Computation and theory of extended Mordell-Tornheim-Witten sums.” *Mathematics of Computation*. **83**, (2014), 1795–1821.
  35. D. Borwein, J.M. Borwein and B. Sims, “On the Solution of Linear Mean Recurrences.” *MAA Monthly*. **121** June–July (2014), 486–398.
  36. D.H. Bailey, J.M. Borwein, M. Lopez de Prado, and Qiji Zhu, “Pseudo mathematics and financial charlatanism: Backtest overfitting and out-of-sample over performance.” *Notices of the AMS*. **61** May (2014), 458–471. Online at <http://www.ams.org/notices/201405/rnoti-p458.pdf>.
  37. Jonathan Borwein, Yann Bugeault, and Michael Coons, “The Legacy of Mahler.” *Newsletter of the European Mathematical Society* (<http://www.ems-ph.org/journals/journal.php?jrn=news>). Issue **91**, March (2014), 12–16. Version in *Gazette AustMS*, March (2014), 11–21. Reprinted *Notices AMS*, **62** May (2015), 526–531.
  38. D.H. Bailey and J.M. Borwein, “On Pi Day 2014, Pi’s normality is still in question.” *American Mathematical Monthly*, **121** March (2014), 191–204. Published in translation in *Mathematical Advances in Translation* (Chinese Academy of Science).
  39. Jonathan M. Borwein and Liangjin Yao, “Legendre-type integrands and convex integral functions.” *J. Convex Analysis*. **21** (1) (2014), 264–288. Available at <http://arxiv.org/abs/1208.5217>.
  40. Julia Piantadosi, Phil Howlett and Jonathan Borwein, “Modelling and simulation of seasonal rainfall using the principle of maximum entropy.” *Entropy*. **16** (2014), 747–769. Available at <http://www.mdpi.com/1099-4300/16/>
  41. Jonathan M. Borwein, Regina Burachik and Liangjin Yao, “Conditions for Zero Duality Gap in Convex Programming.” *J. Convex and Nonlinear Analysis* **15** (2014), xxx–xxx. Proofs November 2013. Available at <http://arxiv.org/abs/1211.49533>.
  42. Jonathan M. Borwein, Guoyin Li, and Liangjin Yao, “Analysis of the convergence rate for the cyclic projection algorithm on semi-algebraic convex sets.” *SIAM Optim.* **24** (2014), 498–527. Online March 2014. Available at <http://arxiv.org/abs/1304.7965>
  43. David Borwein, Jonathan M. Borwein, and Armin Straub, “On lattice sums and Wigner limits.” *JMAA*. **414**, (2014), 489–513. Available at <http://arxiv.org/abs/1310.1423>.

44. David H. Bailey, Jonathan M. Borwein and Alex D. Kaiser, "Automated Simplification of Large Symbolic Expressions." *J. Symbolic Analysis*, **60** (2014), 120–136. DOI <http://dx.doi.org/10.1016/j.jsc.2013.09.001>.
45. Fran Aragon, Jonathan M. Borwein, and Matthew Tam, "Recent Results on Douglas-Rachford Methods for Combinatorial Optimization Problems." *JOTA*, **163**:1 (2014), 1–30. Available at <http://arxiv.org/abs/1305.2657>.

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46. Jonathan M. Borwein, Matthew Skerritt and Christopher Maitland, "Computation of a lower bound to Giuga's primality conjecture." *Integers* 13 (2013). Published online September 2013 at #A67 <http://www.westga.edu>
47. Jonathan M. Borwein and Liangjin Yao, "Maximality of the sum of a maximally monotone linear relation and a maximally monotone operator." Special volume of *Set-Valued and Variational Analysis* entitled *Topological Methods in Variational Analysis and Optimization* in honour of Petar Kenderov. Volume **21L4**(2013), 603–616. DOI <http://link.springer.com/article/10.1007/s11228-013-0259-y>. Available at <http://arxiv.org/abs/1212.4266>.
48. Fran Aragon, Jonathan M. Borwein, Victoria Martin-Marquez and Liangjin Yao "Applications of Convex Analysis within Mathematics." Special volume in honour of J-J. Moreau. "Modern Convex Analysis" *Mathematical Programming B* 148 **158** Numbers 1?2 December (2014), 49–88. DOI <http://link.springer.com/arti> Available at <http://arxiv.org/abs/1302.1978>.
49. Fran Aragon, Jonathan M. Borwein, and Matthew Tam, "Recent Results on Douglas-Rachford Methods." Special volume of *Serdica Mathematical Journal* in honour of Asen Dontchev, **39** (2013), 313–330.
50. D. Bailey, J. Borwein, R. Crandall and M. Rose, "Expectations on Fractal Sets." *Applied Mathematics and Computation*. Volume 220, 1 September (2013), 695–721. DOI: <http://dx.doi.org/10.1016/j.amc.2013.06.078>.
51. Jonathan M. Borwein and Matthew Tam, "A Cyclic Douglas-Rachford Iteration Scheme." *J. Optimization Theory and Applications*. Published online August 17, 2013. DOI <http://link.springer.com/article/10.1007/s1> Available at <http://arxiv.org/abs/1303.1859>.
52. Jonathan M. Borwein and Qiji (Jim) Zhu, "Variational methods in the presence of symmetry." *Advances in Nonlinear Analysis*, **2**(3) (2013), 271–307. DOI: <http://dx.doi.org/10.1515/anona-2013-1001>.
53. Jonathan M. Borwein and Liangjin Yao, "Structure theory for maximally monotone operators with points of continuity." *JOTA* invited paper. **157** (2013), 1–24. DOI: <http://link.springer.com/article/10.1007/s10957-> Available at <http://arxiv.org/abs/1203.1101>.
54. D.H. Bailey, J.M. Borwein, R.E. Crandall and I.J. Zucker, "Lattice sums arising from the Poisson equation." *Journal of Physics A: Mathematical and Theoretical*. **46** (2013) #115201 (31pp). DOI: <http://dx.doi.org/10.1088/1751-8113/46/11/115201>.
55. D.H. Bailey, J.M. Borwein, A. Mattingly, and G. Wightwick, "The Computation of Previously Inaccessible Digits of  $\pi^2$  and Catalan's Constant." *Notices of the AMS*. **60**(7) (2013), 844–854.
56. J.M. Borwein and A. Straub, "Mahler measures, short walks and logsine integrals." *Theoretical Computer Science*. Special issue on *Symbolic and Numeric Computation*. **479**(1) (2013), 4–21. DOI: <http://link.springer.com>
57. Jonathan M. Borwein, Armin Straub and James Wan, "Three-step and four-step random walks." *Experimental Mathematics*. **22** (1) (2013), 1–14.
58. F. Aragon, D. H. Bailey, J.M. Borwein and P.B. Borwein, "Walking on real numbers." *Mathematical Intelligencer*. **35** (1) (2013), 42–60. DOI: <http://link.springer.com/article/10.1007/2Fs00283-012-9340-x>.
59. F. Aragon and J.M. Borwein, "Global convergence of a non-convex Douglas-Rachford iteration." *J. Global Optimization*. **57**, Issue 3 (2013), 753–769. DOI [10.1007/s10898-012-9958-4](http://dx.doi.org/10.1007/s10898-012-9958-4). Available at <http://arxiv.org/abs/1203.2392>.
60. David H. Bailey and Jonathan M. Borwein, "Compressed lattice sums arising from the Poisson equation." In a special volume of *Boundary Value Problems* in honour of Hari Srivastava. **75**(1) (2013), (18.pp). DOI: [10.1186/1687-2770-2013-75](http://dx.doi.org/10.1186/1687-2770-2013-75) <http://www.boundaryvalueproblems.com/content/2013/1/75>. Online May 13, 2013.
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  26. J.M. Borwein and P.B. Borwein, *A Dictionary of Real Numbers*, 424 and viii pp. (Wadsworth and Brooks/Cole Advanced Books and Software, Pacific Grove, California, 1990). Library of Science Book Club selection, Nov 1991. (890 sold 31/12/97 +350 Book Club) Transferred to Van Nostrand Reinhold, July 1992. Sold to Chapman Hall, March 1993. Now published by International Thompson Publishing.
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Foreign editions: Chinese (Owl Publishing) 1995, ISBN 957-0337-14-1. Indonesian (Erlanga Penerbit) signed 1995. Italian (Gremese Editore) 1995, ISBN 88-7605-813-3. Arabic (Academia International) 1991.  
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## 8 Book and other reviews

1. J.M. Borwein and Brailey Sims, Review of *Origins of Mathematical Words A Comprehensive Dictionary of Latin, Greek and Arabic Roots* by Anthony lo Bello. The John Hopkins University Press, 2013. *Australian Mathematical Gazette*, May (2014), 116–118.
2. Jonathan Borwein and Judy-anne Osborn, A review of “Loving and Hating Mathematics: Challenging the Myths of Mathematical Life.” *The Intelligencer*. **33** (4) (2011), 63–69. DOI: 10.1007/s00283-011-9260-1.
3. *Implicit Functions and Solution Mappings: A View from Variational Analysis*. Review in *IEEE Control Systems*. February 2011, 74-77.
4. *The Princeton Companion to Mathematics*, Featured *SIAM REVIEW*, November (2009) 790–794.
5. Allyn Jackson, “John Ewing retires from the AMS. With contributions by Jonathan Borwein and Jane Kister,” *Notices Amer. Math. Soc.* **56** (2009), no. 1, 48–51.
6. *The Oxford Users’ Guide to Mathematics*, Featured *SIAM REVIEW*, **48**:3 (2006), 585–594. [D-drive Preprint 300].
7. *The SIAM 100 Digits Challenge*, Extended review for the *Mathematical Intelligencer*, **27** (4) (2005), 40–48. [D-drive preprint 285].
8. *Featured Mathematical Review* (1997), MR 97h:33034 of: Berndt, Bruce C., Bhargharva, S. and Garvan, Frank G., ”Ramanujan’s theories of elliptic functions to alternative bases,” *Trans. Amer. Math. Soc.* **347** (1995), 4163–4124. (With D. Bradley)
9. *An Encyclopedia of Sequences*, N. Sloane and S. Plouffe, in *SIAM REVIEW*, **38**, (1996), 333–337. (With R. Corless)
10. *Pi in the sky: counting, thinking and being*, John Barrow, in *Science*, (March 26, 1993). (With P. Borwein)
11. *Set-Valued Analysis*, J-P. Aubin and H. Frankowska, in *Bull. AMS*, **26**, (1992), 157–160.
12. *The man who knew infinity: a life of the Indian genius Ramanujan*, Robert Kanigel, in *Science*, (July 19, 1991). (With P. Borwein)
13. *Generalized Concavity*, M. Avriel, W. Diewert, S. Schaible, and I. Zang, in *SIAM REVIEW*, **32** (1990), 689–690.

## 9 Works not yet accepted

1. D. Bailey, J. Borwein, M. Lopez de Prado, A. Salehipour, and Qiji Zhu, “How hard is it to avoid backtest overfitting?” Submitted to *Applied Mathematical Finance*, July 2016.
2. J. M. Borwein, K. Hare, and J. Lynch, “Generalized Continued Logarithms and Related Continued Fractions.” Submitted to *Math of Computation*, June 2016.
3. J.M. Borwein and Ohad Giladi, “Ergodic behaviour of a Douglas-Rachford operator away from the origin.” Submitted to the *Journal of Global Optimization*, May 2016.
4. J.M. Borwein and Karl Dilcher, “Derivatives and Fast Evaluation of the Witten Zeta Function.” Submitted to the *Ramanujan Journal*, April 2016.
5. Jonathan M. Borwein, Gouyin Li, and Matthew Tam, “Convergence rate analysis for averaged fixed point iterations in the presence of Hölder regularity.” Revised *SIAM Optimization*, April 2016. Available at <http://arxiv.org/abs/1510.06823>. refer

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6. Jonathan M. Borwein and Michael Rose, “Expectations over attractors of iterated function systems.” Submitted *JMAA*, June 2016.
7. D. Borwein, J.M. Borwein and B. Sims, “Monotonicity of certain Riemann sums.” Submitted, *Mathematics Magazine*, January 2015.

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8. Julia Piantadosi, Phil Howlett and Jonathan Borwein, “Modelling and simulation of seasonal rainfall using checkerboard copulas of maximum entropy.” Submitted *eMathematics and Computers in Simulation MATCOM*, May 2014.



## 10 Works in preparation

1. D.H. Bailey and J. M. Borwein, “Computation and experimental evaluation of Mordell–Tornheim–Witten sum derivatives.” Preprint, July 2016.
2. J. M. Borwein, K. Dilcher, and H. Tomkins, “The behaviour at the origin of multiple Witten zeta functions.” In preparation, July 2016.
3. J. Borwein, S. Lindstrom, A. Schneider, B. Sims, and M. Skerritt, “Generalisation of the Douglas-Rachford method from simple spheres to ellipses and  $p$ -spheres.” Preprint, June 2016.
4. Jonathan M. Borwein and Brailey Sims, “Convexity in ultraproducts.” Preprint, August 2015.
5. This Curriculum Vitae.

## 11 Other manuscripts

1. David H. Bailey and Jonathan M. Borwein, “High-Precision Arithmetic: Opportunities and Challenges.” Preprint, August 2013.
2. D. H. Bailey, J. Borwein, U. Martin, Salvy and M. Taufer, “Opportunities and Challenges in 21st Century Mathematical Computation: ICERM Workshop Report” , July 10–14, 2014. In collaboration with the workshop participants. Preprint, January 2013.
3. D.H. Bailey, J.M. Borwein, M. Lopez de Prado, and Qiji Zhu, “ Computing the Probability of Over-Fitting in the Back-Testing and Optimization of Investment Strategies.” Preprint September 2013. Available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2308659](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2308659).
4. D. H. Bailey, J. Borwein, R. J. LeVeque, W. Rider, W. Stein, and V. Stodden, “Setting the Default to Reproducible. Report on the ICERM Workshop: Reproducibility in Computational and Experimental Mathematics.” December 10–14, 2012. In collaboration with the workshop participants. Preprint, January 2013. Available at <http://www.carma.newcastle.edu.au/jon/icerm12.pdf>.
5. Jonathan M. Borwein and Liangjin Yao, “Maximally monotone operators of negative infimum type are of dense type: the proof revisited.” Preprint, June 2012.
6. D. H. Bailey, J.M. Borwein, C. S. Calude, M. J. Dinneen, M. Dumitrescu, and A. Yee, “Normality and pi.” Preprint February 2012. Available at <http://www.carma.newcastle.edu.au/jon/normality-long.pdf>.
7. 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>.
8. Jonathan M. Borwein, Andrew Eberhard and Liangjin Yao, “Monotone operators of type FPV.” Preprint, August 2011.
9. D.H. Bailey and J.M. Borwein, “The Greatest Mathematical Discovery?” Blog, May 2011.
10. 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](http://www.acma.gov.au/WEB/STANDARD/pc=PC_312279)
11. M. Bačák, J. Borwein, and B. Sims, “Differentiability of convex functions in CAT(0) spaces.” Preprint August 2010.
12. 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]
13. D. Bailey, J. Borwein, R. Crandall and D. Manna, “Heisenberg spin integrals,” preprint, August 2007.
14. J.M. Borwein and Mason Macklem, “Retro-enhancement of Mathematical Literature,” March 2007. [D-drive Preprint 339].
15. Jonathan Borwein and Helaman Ferguson, “The mathematics of salt,” preprint, December 2006.

16. J.M. Borwein, R.K. Goodrich and M.A. Limber, "A comparison of entropies in the underdetermined moment problem," preprint, May 1993.
17. J.M. Borwein, M. Fabian and J. Vanderwerff, "Locally Lipschitz functions and bornological derivatives," Nov. 1993. [CECM Research Report 93:012].
18. J.M. Borwein, P.B. Borwein, R. Girgensohn and S. Parnes, "Mathematical Experimentation and Methodology," January 1995.
19. H.H. Bauschke and J.M. Borwein, "Continuous linear monotone mappings in Banach space," August 1995. [CECM Research Report 95:049].
20. J.M. Borwein and S. Fitzpatrick, "Closed convex Haar null sets," August 1995. [CECM Research Report 95:052].
21. Jonathan M. Borwein, Jay Treiman and Qiji Zhu, "Sensitivity analysis in reflexive Banach spaces," preprint, August 1997.
22. 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](#)]
23. L. Berggren, J. Borwein and P. Borwein, *A Pamphlet on Pi*, June 2003, [CECM Preprint 2003:210].
24. 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/>
25. Jonathan Borwein and Peter (Liquin) Ye, "Quadratic Convergence of the Tanh-sinh Quadrature Rule," February 2006. [D-drive Preprint 315].

### 11.1 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 Seminary, University of Waterloo.
3. **November 24th** "Ramanujan, modular equations and pi," Colloquium, St. Francis Xavier.

### 11.2 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.

### 11.3 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.

### 11.4 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.

## 11.5 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.

## 11.6 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. Peyrerimhoff’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.

## 11.7 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.

## 11.8 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.

## 11.9 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 Springbreak, 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

## 11.10 1995

1. **January 7th** “Minimal multifunctions and their applications,” Special Session on multivalued 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.

### 11.11 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.



## 11.12 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.

### 11.13 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).

### 11.14 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 Computation (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.

## 11.15 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.

## 11.16 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. Catherines, 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.

## 11.17 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.)

## 11.18 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.

## 11.19 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 Nonlinear 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.

## 11.20 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, Borevetz, 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.

## 11.21 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.

## 11.22 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/MITAC 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,” IC-COPT 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.

## 11.23 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.

## 11.24 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.

## 11.25 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.

## 11.26 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 Log-sine Integrals, I.” CARMA Seminar.

14. **March 23** “Short Walks, Mahler Measures and Log-sine 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.

## 11.27 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 mathematics seminar, University of Melbourne.
10. **May 15** “My experiences with special functions.” Colloquium, University of Melbourne.
11. **May 21** “Maximum Entropy and Projection Methods for Inverse Problems.” Technion Mathematics Colloquium and Conference Presentation to the Workshop on *Infinite Products of Operators and Their Applications* Technion, Haifa, May 21-24.
12. **May 24** “Fifty years of maximal monotonicity: recent results on maximal monotone operators.” Conference Presentation to the Workshop on *Infinite Products of Operators and Their Applications* Technion, Haifa, May 21-24.
13. **August 2** “Expectations over fractal sets.” Applied Mathematics Seminar, UNSW, Sydney.
14. **August 11** Interview with Ginger Gorman at 666 ABC Canberra on *Pi Walk*.
15. **August 12** “Expectations over fractal sets.” SigmaOPT Colloquium, CARMA.
16. **August 17** “Talking to, with and for the media and the public.” CARMA-MAPS Outreach afternoon.
17. **August 18** “CARMA and me: 2012.” Annual CARMA Retreat, Fort Scratchley Newcastle.
18. **September 7** “Fractals everywhere.” Presentation to West Wallsend High School students in CARMA.
19. **September 13** “Interdisciplinarity, Innovation, Collaboration and Creativity or How to Manage a Research Portfolio.” CARMA Colloquium.
20. **September 24** “Fifty years of maximal monotonicity: recent results on maximal monotone operators.” Keynote presentation to special session on *Variational Analysis* 56th AustMS Meetings, Ballarat, Sept 23-27.
21. **September 25** “Mordell–Tornheim–Witten Sums and Log Gamma Integrals.” Special session on *Number Theory* 56th AustMS Meetings, Ballarat, Sept 23-27.
22. **October 23** “CARMA and me: 2012.” APEC-ITB Workshop, Bandung Indonesia, given from Newcastle.
23. **October 25** “Music and Mathematics” Concert including a visualisation and sonification of *a random walk through Pi* with Jon Drummond and Fran Aragon. Harold Lobb Concert Hall, Newcastle.
24. **November 8** Interview with ABC Radio Canberra on “Smart Meters”.
25. **November 11** Interview with ABC Radio National *Future tense* on “The Future of Maths” (Sunday 11.30): <http://www.abc.net.au/radionational/programs/futuretense/the-future-of-maths/4355778>.
26. **November 25** “Seeing things in Mathematics”. CARMA Workshop on Effective Visualisation in the Mathematical Sciences (eViMS), November 23–25.
27. **December 10** “Exploratory Experimentation in Mathematics”. ICERM Workshop on Reproducibility in Computational and Experimental Mathematics, ICERM, Providence, December 10–14.

## 11.28 2013

1. **January 17** “Seeing Things by Walking on Real Numbers”, Fellows’ Lecture, 2013 National Mathematics Summer School, Shine Dome, Canberra.
2. **February 11** “Seeing Things by Walking on Real Numbers”, Plenary Lecture, Third South Pacific Optimization Meeting, Newcastle.
3. **March 14** “The Pi of Planet Earth”, Plenary Lecture, AMSI AGR Distinguished Lecture Series from CARMA.
4. **March 14** “Pi Day”, Interview with ABC radio South Australia .
5. **March 25** “Best Approximation in (reflexive) Banach space, I: Introduction”, OANTS-AMSI seminar, CARMA.
6. **April 8** “Best Approximation in (reflexive) Banach space, II: The Lau-Konjagin Theorem”, OANTS-AMSI seminar, CARMA.

7. **April 15** ‘Best Approximation in (reflexive) Banach space, III: The Chebysev Problem’, OANTS-AMSI seminar, CARMA.
8. **April 26** “Best approximation in Banach Space: the Chebyshev Problem.” Narusean University, Workshop on *Nonsmooth Variational Inequalities, Optimization Problems and Fixed Point Theory*, April 24-26, Naresuan University, Phitsanulok, Thailand.
9. **April 26** “Seeing things by walking on numbers.” Workshop on *Nonsmooth Variational Inequalities, Optimization Problems and Fixed Point Theory*, April 24-26, Naresuan University, Phitsanulok, Thailand.
10. **April 26** “Nonconvex Douglas-Rachford iterations.” Workshop on *Nonsmooth Variational Inequalities, Optimization Problems and Fixed Point Theory*, April 24-26, Naresuan University, Phitsanulok, Thailand.
11. **April 29** “Exploratory Experimentation in the Mathematical Sciences.” Colloquium, Department of Economics, Chiang Mai University, Chiang Mai Thailand.
12. **April 29** “Best approximation in Banach Space: the Chebyshev Problem.” Colloquium, Department of Mathematics, Chiang Mai University, Chiang Mai Thailand.
13. **April 30** “Entropy Methods for Inverse Problems.” Colloquium, Department of Economics, Chiang Mai University, Chiang Mai Thailand.
14. **April 30** “Surprise Maximization.” Department of Economics, Chiang Mai University, Chiang Mai Thailand.
15. **April 30** “Entropy Methods and Checkerboard Copulas to Simulate Rainfall.” Department of Economics, Chiang Mai University, Chiang Mai Thailand.
16. **April 30** “Seeing things by walking on numbers.” Colloquium, Department of Mathematics, Chiang Mai University, Chiang Mai Thailand.
17. **June 5** ‘Exploratory Experimentation in the Mathematical Sciences.’ National Mathematics Seminar, Bulgarian Academy of Science.
18. **June 10** “Seeing things by walking on numbers.” First keynote, workshop on *Topological Methods in Analysis and Optimization*, Bulgarian Academy of Science June 10-13.
19. **July 2** “Seeing things by walking on numbers.” *National Youth Science Forum* students visit to University of Newcastle, July 1-2, CARMA.
20. **July 9** “Set the default to ‘reproducible’.” Session on reproducible computational science, MPE 2013, Melbourne, July 8–12.
21. **July 17** “Modelling and simulation of seasonal rainfall.” Recent Advances in OR, RMIT AGR–Newcastle University AGR–Adelaide, July 17.
22. **July 30** “Variational analysis in the presence of symmetry. Part I.” OAANTS AGR Seminar.
23. **August 6** “Variational analysis in the presence of symmetry. Part II.” OAANTS AGR Seminar.
24. **August 14** “Seeing things by walking on numbers.” *Maths Enrichment Session*, CARMA.
25. **September 20** “The Life of Pi”. *Maths Enrichment Session*, CARMA.
26. **September 30** “Seeing things by walking on numbers.” *Number Theory Session*, 57th AustMS Meeting, University of Sydney.
27. **October 1** “Variational analysis in the presence of symmetry.” *Optimization of Planet Earth Session*, 57th AustMS Meeting, University of Sydney. .
28. **October 23** “Douglas-Rachford methods for matrix completion problems.” CARMA/OCANA Seminar, University of Newcastle.
29. **November 12** “Seeing things by walking on numbers.” Google’s *CS4HS* programme, University of Newcastle.
30. **November 25-30** “Seven lectures on variational analysis.” CIMPA–Unesco-India Research School on *Generalized Nash Equilibrium Problems*, Delhi University (Nov 25th-Dec 6).
31. **December 16** “Maximum Entropy and Projection Methods for Convex and Non-convex Inverse Problems.” First Keynote Lecture, *MaxEnt33*, Canberra (Dec 15-20).

## 11.29 2014

1. **February 6** “Douglas–Rachford methods for matrix completion problems.” ANZIAM 2014, Rotorua New Zealand.
2. **March 14** “Pi Day”, Interview and call-in show with ABC radio South Australia.
3. **April 10** “The visualization of Pi. Presentation at *Destination Maitland: City of the Future*. Conservatorium Campus, Maitland, NSW.
4. **April 16** “Douglas–Rachford methods for matrix completion problems.” ANZIAM 2014, Federation University meeting in honour of Vladimir Demyanov (given from Burnaby).
5. **April 16** “Seeing things in mathematics by walking on real numbers.” Workshop in honour of David Borwein’s 90th birthday, IRMACS, Burnaby BC.
6. **April 22** The Life of Pi. A Talk for Pi Day or other Days. Part I, History. Inaugural Möbius Lecture Series, Department of Mathematics, Baylor University, Waco, Texas.
7. **April 23** The Life of Pi. A Talk for Pi Day or other Days. Part Part II, Computation. Colloquium, Inaugural Möbius Lecture Series, Department of Mathematics, Baylor University, Waco, Texas.
8. **April 24** “Seeing things in mathematics by walking on real numbers.” Inaugural Möbius Lecture Series, Colloquium, Department of Mathematics, Baylor University, Waco, Texas.
9. **May 8** Interview on ABC Radio Newcastle on “Rock, Paper, Scissors.”
10. **May 12** Interview on ABC Radio Riverena on “Rock, Paper, Scissors.”
11. **May 21** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, Part I, CARMA Colloquium.
12. **May 28** “CARMA and Me”, Opening of CRM, University of Western Sydney.
13. **May 29** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, Part II, CARMA Colloquium.
14. **June 14** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, Part III, CARMA Colloquium.
15. **July 12** “A very complicated proof of the minimax theorem”, CARMA Workshop on *Optimisation and Risk*, July 12, 2012.
16. **July 21** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, First Plenary, ICERM Workshop on *Challenges for 21st Century Experimental Mathematics*, Brown, July 21-25, 2014.
17. **August 9** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, Final Keynote, Fourth International Congress on Mathematical Software (and ICM Satellite Meeting), Hanyang University, Seoul, South Korea August 5-8, 2014.
18. **October 24** “Character Polylogarithms and their applications”, First lecture, Number Theory Down Under II, Newcastle, October 24-25, 2014.
19. **November 22** “Exploratory Computation and Visual Theorems: The Computer as Collaborator”, Plenary lecture *Effective Visualisation in the Mathematical Sciences* (EViMS2), ANU November 21–23.
20. **November 25** “Moments and densities of short walks in arbitrary dimensions”, Plenary lecture *New Directions in Fractal Geometry*, ANU November 23–27.
21. **December 8** “The Fitzpatrick function as a convex gap function”, Special session on Optimization, ANZMCS, Melbourne, December 8–12, 2014

### 11.30 2015

1. **January 8** “Exploratory Computation and Visual Theorems: The Computer as Collaborator. Parts I and II”, Opening general lectures, *AMSI Summer School* Newcastle, January 5–26.
2. **February 10** “The Fitzpatrick function as a convex gap function”, Special session in memory of Simon Fitzpatrick, South Pacific Continuous Optimization Meeting, Adelaide, February 8–12, 2015.
3. **March 12** “I prefer Pi”, CARMA Colloquium.
4. **April 16** “Douglas–Rachford methods for matrix completion problems”, Federation University Workshop on Continuous Optimization in honour of Alex Rubinov (given from Newcastle).
5. **June 23** “Short walks in arbitrary dimensions”, final lecture *Workshop on Mathematics and Computation*, CARMA 21–23 June, 2015.
6. **July 22** “Moore’s Law is 50 years old”, Interview with ABC Radio Melbourne.
7. **August 11** “Two lectures on Douglas–Rachford reflection methods for convex and non convex feasibility problems”, Keynote lectures, RMIT Workshop on Optimisation, August 11, 2013.
8. **August 13** “Short walks in arbitrary dimensions”, *ASEMS Workshop on Stochastics and Special Functions*, University of Melbourne, 13–14 August, 2015.
9. **August 22** “Brailey and me (and you)”, Dinner speech, CARMA Workshop in honour of Brailey Sims, August 21–23, Newcastle.
10. **September 18** “Short walks in arbitrary dimensions”, *Number Theory Down Under 3*, CARMA, University of Newcastle, 18–19 September, 2015.
11. **September 29** “Convex analysis on groups and monoids”, Plenary *Variational Analysis and Optimisation Special Session*, AustMS 59, Flinders University, 28 Sept – Oct 1, 2015.
12. **October 1** “A short walk can be beautiful”, *Maths Education Special Session*, AustMS 59, Flinders University, 28 Sept – Oct 1, 2015.
13. **November 3** NZ Radio interview on the Melbourne Cup, Newstalk ZB.
14. **November 13** “Set the default to reproducible,” CARMA workshop on Mathematical Aspects of Behavioural Economics and Finance, November 13–14, Newcastle.
15. **December 7** “Adventures with the OEIS: Five sequences Tony may like,” Tony Guttmann: Seventy and counting, December 7–8, Newcastle.

### 11.31 2016

1. **February 29** “Convex analysis on groups and monoids.” Keynote lecture, *South Pacific Optimization Meeting V*, University of New Caledonia.
2. **April 5.** “The Life of Pi: a Talk for Pi Day and other Days.” Nerenberg Memorial Lecture, University of Western Ontario.
3. **April 7** “Walking on Numbers.” Technical Talk, Nerenberg Memorial Lecture, University of Western Ontario.
4. **April 12** “Walking on Numbers.” 25th Owens Memorial Lecture, Wayne State University, Detroit.
5. **April 13** “The Lambert W function in Optimization.” Technical Talk, 25th Owens Memorial Lecture, Wayne State University, Detroit.
6. **April 14** “Walking on Numbers.” Mathematics Department Colloquium, Western Michigan University, Kalamazoo.
7. **April 29** “Theory and Applications of Convex and Non-Convex Feasibility Problems.” *Applied Mathematics Spring Lecture Series - University of Western Ontario*. Lectures 1.
8. **April 29** “Theory and Applications of Convex and Non-Convex Feasibility Problems.” *Applied Mathematics Spring Lecture Series - University of Western Ontario*. Lectures 2.

9. **May 3** “Theory and Applications of Convex and Non-Convex Feasibility Problems.” *Applied Mathematics Spring Lecture Series - University of Western Ontario*. Lectures 3.
10. **May 3** “Theory and Applications of Convex and Non-Convex Feasibility Problems.” *Applied Mathematics Spring Lecture Series - University of Western Ontario*. Lectures 4.
11. **May 5** “Theory and Applications of Convex and Non-Convex Feasibility Problems.” *Applied Mathematics Spring Lecture Series - University of Western Ontario*. Lecture 5. “Adventures with the OEIS.”
12. **May 6** “Reflection methods for matrix completion.” Tutte Seminar, University of Waterloo.
13. **May 12** “Visual Theorems in Mathematics”, Fields Workshop on *Computationally Assisted Mathematical Discovery and Experimental Mathematics*, First Plenary Lecture, Western University, London Ontario, May 12–15.
14. **May 17** “CARMA: a model for multi-disciplinary and multi-institutional collaborative research.” Colloquium, Florida ADRC (Alzheimer’s Disease Research Center), McKnight Brain Institute, University of Florida, Gainesville.
15. **May 19** “Seeing things by walking on real numbers.” Mathematics Colloquium, University of Florida, Gainesville.
16. **June 3** “The Lambert W function in Optimization.” Third Keynote lecture, OVA7, in honour of Michel Thera at 70, June 1-3, Alicante, Spain.
17. **June 9** “Convex Analysis on Groups and Semigroups.” Plenary lecture, Fourth International Workshop on Functional Analysis, University of Cartagena, June 9–10.
18. **June 25** “Variational Analysis in the Presence of Symmetry.” Informal Workshop on Nonlinear Optimization, Western, London Ontario, June 24–25.
19. **June 30** “Seeing things by walking on real numbers.” Mathematics Colloquium, Dalhousie University, Halifax, Nova Scotia.
20. **July 7** “Continued Logarithms and Associated Continued Fractions.” Colloquium, University of Western Ontario.
21. **July 14** “Seeing things by walking on real numbers.” Mathematics Seminar, University of Toronto.
22. **July 20** “Convex Analysis on Groups and Semigroups.” Plenary lecture, Mathematical Optimisation Down Under, Melbourne, July 18–22. (Given from London Ontario.)
23. **July 25** “The Lambert W function in Analysis and Optimization.” Keynote lecture, Fields Workshop on the 20th anniversary of the *Lambert W function*, July 25–28, Western University, London, Ontario.

## 12 Additional information

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