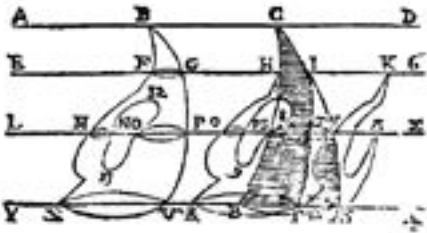


# BULLETIN

CSHPM

SCHPM

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Canadian Society for History  
and Philosophy of Mathematics

Société canadienne d'histoire et  
de philosophie des mathématiques

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## ABOUT THE SOCIETY

Founded in 1974, the Canadian Society for the History and Philosophy of Mathematics / Société canadienne d'histoire et philosophie des mathématiques (CSHPM/SCHPM) promotes research and teaching in the history and philosophy of mathematics. Officers of the Society are:

*President:* **Dirk Schlimm**, McGill University, Montreal, QC H3A 2T7, CA, [dirk.schlimm@mcgill.ca](mailto:dirk.schlimm@mcgill.ca)

*Vice-President:* **Maria Zack**, Point Loma Nazarene University, San Diego, CA 92106, USA, [MariaZack@pointloma.edu](mailto:MariaZack@pointloma.edu)

*Secretary:* **Patricia Allaire**, 14818 60th Ave., Flushing, NY 11355, USA, [PatAllaire@gmail.com](mailto:PatAllaire@gmail.com)

*Treasurer:* **Gregory Lavers**, Concordia University, Montreal, QC H3G 1M8, CA, [Greg.Lavers@concordia.ca](mailto:Greg.Lavers@concordia.ca)

*Past President:* **Elaine Landry**, UC Davis, Davis, CA 95616, USA, [emlandry@ucdavis.edu](mailto:emlandry@ucdavis.edu)

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### Volunteer Positions

The Society's Web Page ([www.cshpm.org](http://www.cshpm.org)) is maintained by **Michael Molinsky**, University of Maine at Farmington, Farmington, ME 04938, USA, [michael.molinsky@maine.edu](mailto:michael.molinsky@maine.edu), who also manages the Society's Archives. The Proceedings of the Annual Meeting are edited by **Maria Zack** and **Dirk Schlimm** (see above). **Hardy Grant**, [hardygrant@yahoo.com](mailto:hardygrant@yahoo.com), and **Amy Ackerberg-Hastings**, [aackerbe@verizon.net](mailto:aackerbe@verizon.net), edit the CSHPM Notes column for *Notes* of the Canadian Mathematical Society. **Maritza Branker**, Niagara University, Lewiston, NY 14109, [mbranker@niagara.edu](mailto:mbranker@niagara.edu), serves as CMS Liaison.

*New Members are most cordially welcome; please contact the Secretary.*

## From the President

It was a little over ten years ago, in May 2006, that I attended my first meeting of the CSHPM at York University in Toronto. I remember well the welcoming and supportive atmosphere of the meeting, the genuine interest in each presenter's contribution, and how smoothly the traditional disciplinary boundaries between history and philosophy of mathematics were overcome. This impression hasn't changed over the years, and I still consider the CSHPM to embody the ideal of a scholarly society. All the more I am now extremely honoured to have been elected its 22nd President. My thanks to all who participated in the election this year. Many thanks also to Glen Van Brummelen, who finished his second formal six-year presidential cycle, and to our Past-President, Elaine Landry, for their energetic and successful work for the CSHPM. At this point I'd also like to express my thanks to David Bellhouse for keeping our finances in order over the past years and to welcome Greg Lavers as our new Treasurer. Finally, no round of thanks would be complete without thanking our Secretary Pat Allaire and our Webmaster and Archivist Michael Molinsky for their continued vital contributions to our society.

Our annual meeting was held this year at the University of Calgary in conjunction with the Congress of the Humanities and Social Sciences. We had a packed three-day programme with 33 exciting talks on a wide range of topics and covering many different time periods. In honour of our late associate Aldo Antonelli the Special Session was on 'Logic and Mathematics in the 19th and 20th Centuries.' Several students of Aldo were able to participate in this session, which gave us the opportunity to hear more than one moving anecdote about our deeply missed colleague. Jamie Tappenden gave the Kenneth O. May Lecture, showing us how philosophical and historical issues can both be addressed in an engaging talk on "Frege, Carl Snell and Romanticism; Fruitful Concepts and the 'Organic/Mechanical' Distinction." Many thanks to Thomas Drucker for organizing the special session, to Eisso Atzema for organizing the general programme, and to Richard Zach for the local organization as well as for securing support from the Pacific Institute for



Figure 1: Jamie Tappenden



Figure 2: Larry D'Antonio

the Mathematical Sciences and the Department of Philosophy at the University of Calgary. I thank all participants, session chairs, and organizers for bringing together this wonderful event.

In 2017, the year of the 150th anniversary of the Canadian Confederation, we will meet again together with the 'Learners', at Ryerson University in Toronto. The Special Session on '18th Century Mathematics' will be organized by Pat Allaire and Rob Bradley; Eisso Atzema will organize the general programme; Craig Fraser will lead the local organizing committee; and William Dunham will be presenting the Kenneth O. May Lecture. I am looking forward to seeing many of you at our next meeting in Toronto!

As you all know, several very successful efforts have been started in the course of the past years to foster and strengthen our ties with other societies and professional associations, as well as to increase our visibility in the community at large. After several years as our CMS Liaison, Tom Archibald stepped down from this position. He was essential for organizing the History of Mathematics sessions at the CMS Winter Meetings and worked tirelessly behind the scenes to have historians as invited speakers at the CMS meetings. For all of this, I thank him very much! At the same time, I'd like to welcome Maritza Branker as our new CMS Liaison. Maritza hit the ground running and is organizing the history session at the upcoming CMS Meeting in Niagara Falls, ON. Other ongoing outreach projects are the column devoted to history and philosophy of mathematics in *CMS Notes*, written by our members and edited by Hardy Grant and Amy Ackerberg-Hastings, the PhilMath Archive, the online research paper repository for which Elaine worked very hard and which should soon see the light of day, and, of course, our

*Proceedings* volumes. The first volume, from our 2014 Meeting, appeared last year and the second should be available on the shelves (or in your hands) very soon. Maria Zack, the driving force behind the proceedings (and our newly elected Vice-President), was recently able to negotiate an extension of our contract with the publisher, which clearly shows a general enthusiasm for the work that we are doing. Many thanks to Hardy, Amy, Elaine, and Maria for all their truly terrific work!

All in all the CSHPM is a flourishing society that lives and thrives on the activities and efforts of all of its members. Let's all keep it up!

*Dirk Schlimm*

## Announcements

Janet Heine Barnett is one of three recipients of the MAA Teaching Award and will speak on "Drinking straight from the source: Learning today's mathematics through its historical roots" at the 2017 JMM. Janet also gave one of four plenary talks at a joint meeting of the Intermountain and Rocky Mountain Sections on April 8–9. Shirley Gray received the SoCal-Nevada Section's Teaching Award.

Deana Haunsperger will be presented with the 2nd Association for Women in Mathematics Presidential Award at the Saturday evening banquet at the 2017 JMM, recognizing, among other achievements, her work with the Carleton Summer Math Program. She and Stephen Kennedy (North Central Section) also received Certificates of Meritorious Service at the 2016 MAA MathFest. Steve talked about Fibonacci at the student luncheon of the Louisiana-Mississippi Section meeting February 25–27 and gave the keynote address,

“Strange Attractions,” and another talk on highlights from *Math Horizons* at the Kansas Section meeting April 8–9.

David Pengelley offered a minicourse on “Teaching and Learning Mathematics from Primary Historical Sources” at the Pacific Northwest Section meeting at Oregon State, April 1–3.

David Orenstein reports that he’s been busy in various historical activities. For instance, he is now the treasurer of his Toronto neighbourhood’s Riverdale Historical Society, [riverdalehistoricalsociety.com](http://riverdalehistoricalsociety.com). “We host a monthly series of talks centering on local history and have been installing historical plaques at local sites.” He was also a Canadian representative on the Programme Committee for the highly successful 2016 Three Societies Meeting. (See his report in this issue.) The conference website is [www.ualberta.ca/arts/research/3-societies-meeting](http://www.ualberta.ca/arts/research/3-societies-meeting).

“Another retirement project has been my being involved with the Alumni Association of University College, University of Toronto. I’ve joined the executive and this year I have successfully nominated Clarence Chant (1865–1956) as an UC Alumnus of Influence. The first fulltime professor of astronomy at U. of T., he was also responsible for the establishment of the David Dunlap Observatory. Chant will be formally inducted at a banquet on Thursday, November 10, 2016. Such luminaries as U. of T. mathematician John Charles Fields (1863–1932), of Fields Medal fame, were similarly honoured in previous years. See [www.uc.toronto.ca/aoi](http://www.uc.toronto.ca/aoi).”

Hardy Grant and Israel Kleiner have published *Turning Points in the History of Mathematics* with Springer. The book looks at how breakthroughs, transitions, and revolutions can increase appreciation for history during the teaching and learning of mathematics. Springer has also issued *Modern Logic 1850–1950, East and West*, edited by Francine F. Abeles and Mark E. Fuller. The volume, dedicated to the memory of Irving Anellis, contains chapters ranging from proof theory to meta-mathematics to applications of logic to mathematical structures.

A festschrift for Joe Dauben, *A Delicate Balance: Global Perspectives on Innovation and Tradition in the History of Mathematics*, was edited by David E. Rowe and Wann-Sheng Horng and issued in Birkhauser’s Trends in the History of Science series. Contributors include Craig Fraser, Ivor Grattan-Guinness, Niccolò

Guicciardini, Tom Archibald, Jeremy Gray, Xu Yibao, and Karen Parshall.

Amy Shell-Gellasch’s article, “The Spirograph and Mathematical Models from 19th Century Germany,” originally published in *Math Horizons*, will appear in Princeton’s *The Best Writing on Mathematics 2016*.

Tom Drucker contributed reflections on Robert K. Merton’s *On the Shoulders of Giants* to UW-Whitewater’s Warhawk Book Talks video series. See [www.youtube.com/watch?v=LYed1ZUFEVg](http://www.youtube.com/watch?v=LYed1ZUFEVg).

2017 May Lecturer Bill Dunham introduced and discussed *The Man Who Knew Infinity*, about Ramanujan and Hardy, at the Bryn Mawr Film Institute on May 22.

A number of familiar names can be found on the webpage for interviews conducted in conjunction with the MAA Centennial, including Fernando Gouvêa and James Tattersall. See [maa.org/centennial-interviews](http://maa.org/centennial-interviews).

Kathy Clark became Chair of the International Study Group on the Relations between History and Pedagogy of Mathematics in July. HPM has also launched a digital library for proceedings, [www.mathunion.org/icmi/digital-library/aos-conferences/](http://www.mathunion.org/icmi/digital-library/aos-conferences/).

The first recipient of a Grattan-Guinness Archival Travel Grant is Dr. Davide Crippa, for a project on the role of tractional motion in the history, didactics and foundations of calculus. He will visit archives in Bologna, Napoli, Padova, Pavia, Venezia, and Udine, between March 2017 and April 2018. See the related article in this issue.

Peace to the memories of Anita McConnell (1936–2016), known for her wide-ranging work on the history of scientific instruments and recent association with the Whipple Museum for the History of Science at Cambridge, and Lisa Jardine (1944–2015), public intellectual and champion of science, Professor of Renaissance Studies at University College London, and author of books on Francis Bacon, Christopher Wren, Robert Hooke, and others.

**HOM SIGMAA News:** Brittany Anne Carlson (Salt Lake CC), “A Latent Element of Alice’s Agency in Wonderland: Conservative Victorian Mathematics,” and William Cole (Lee), “The Evolution of the Circle Method in Additive Prime Number Theory,” earned first place in the annual undergraduate writing contest. Second-place winners were Anne Alicia

Kelton (Lee), “Overcoming Obstacles: The Lives of Sophie Germain and Sonya Kovalevskaya,” and Brandon Allen (Winona State), “Can Fichte’s Philosophy Handle Category Theory and Topology?”

HOM SIGMAA contributed \$1,000 to the Ivor Grattan-Guinness Papers Project and encouraged members to provide additional contributions. A session on “Preserving and Writing the History of Mathematics Departments” will be held at the 2017 JMM.

**BSHM News:** The 2015–2016 undergraduate essay prize was awarded to Michael Seal (London School of Economics), “Was There a Revolution in Analysis in the Early 19th Century?” and Brigitte Stenhouse (Oxford), “How Financial Instability Influenced the Mathematical Publications of Mary Somerville.” Meetings in the last quarter of 2016 include: AGM at Birkbeck College and “Curves in Honour of Leibniz’s Tercentenary” at Gresham College, London, on October 27; “Leibniz: Legacy and Impact” at Manchester Metropolitan University on November 5; and Christmas Meeting in Birmingham on December 3, with keynote address by Eberhard Knobloch (Berlin). In 2017, meetings are in planning on “The Thomsons. A Mathematical Family” (February 18 in Belfast) and Research in Progress (February 25 at Queens College, Oxford).

The ORESME Reading Group held its 36th meeting at Xavier University, Cincinnati, OH, on Friday evening, September 30 and Saturday morning, October 1, 2016. This meeting was dedicated to the work of René-Louis Baire (1874–1932), whose work on the conditions under which sequences of continuous functions produced continuous limits helped to introduce the new set-theoretic ideas of Cantor into analysis. We read a few chapters from Baire’s *Leçons sur les Fonctions Discontinues* (1905), with an English translation produced by our Xavier colleague Richard Pulskamp. For more information, contact Danny Otero, [otero@xavier.edu](mailto:otero@xavier.edu) or Dan Curtin, [curtin@nku.edu](mailto:curtin@nku.edu).

Michel Serfati announces the first semester program for the annual seminar on Epistemology and History of Mathematical Ideas, held Wednesdays at 2:00 pm at the Institut Henri Poincaré in Paris: Michel Serfati (IREM), “Algèbre et topologie chez Stone. ‘On doit toujours topologiser,’” on 12 October; Dominique Descotes (L’IHRIM), “Aspects littéraires et rhétoriques du Combinaisons de Blaise Pascal,” on 16 November; Christian Bracco (Observatoire de Paris) and Jean-

Pierre Provost (Nice), “La relativité au premier ordre in  $V/c$ : les transformations de Lorentz de 1895,” on 30 November; Claude Lamoureux (Ecole Centrale), “Quelques remarques parfois inédites sur les multiples classifications des langues européennes par leur vocabulaire mathématique,” on 7 December; Serge Grigorieff (IRIF), “Compléments sur l’émergence des modèles du concept de calculabilité,” on 18 January; Michel Serfati (IREM), “La création d’une structure algébrique ordonnée (Premier épisode): Des logiques multivalentes à la construction algébrique,” on 1 March.

The 1st European IHPST Regional Conference, on the theme “Science as Culture in the European Context: Historical Philosophical, and Educational Perspectives,” was held August 22–25 at Europa-Universität Flensburg, Germany. See [ihpst.clubexpress.com](http://ihpst.clubexpress.com) and click on Conferences.

TRIUMPHS (see “Joint AMS/MAA Meeting in Atlanta” in this issue) held its first Site Tester Training Workshop at the University of Colorado Denver on September 8–10.

A workshop on “‘A Many-Sided Crystal’: The Quaker Physicist & Electrical Engineer, Silvanus Phillips Thompson (1851–1916)” was held September 16 in London.

A conference on “Object Lessons and Nature Tables: Research Collaborations Between Historians of Science and University Museums” was held September 23 at the University of Reading. See [objectlessonsandnaturetables.info](http://objectlessonsandnaturetables.info).

The 32nd Boulder Conference on the History and Philosophy of Science, “Gravity: Its History and Philosophy” was held October 28–29.

The History of Science Society met November 3–6 in Atlanta. History and philosophy of mathematics on the program includes the following sessions: “Communities of Mathematicians”; “Mathematics in Early Modern Europe”; “Abacuses, Newspapers, and First Dates: Scientific and Scientific Applications of Computing in the Twentieth Century”; “Case Closed? The Promises and Limits of Case Methods in the History of the Mathematical Sciences”; “Materiality and Visualization in the Long History of Computation”; and “Mathematics and the Shapes of Modernity.” The program also includes a roundtable on “An American Mathematical Community at War (1941–1945)” and a talk by Zhu Haohao, “From Lixue Huitong to Qihua Qianliu: Xue Fengzuo’s System of Integrating

Humanity with Heaven by Numbers.” The Forum for the History of the Mathematical Sciences (FoHoMS) again will hold a luncheon, sponsored by the Legacy of R. L. Moore Project. A workshop on “Writing the Transnational History of Science and Technology” was also held, and the Philosophy of Science Association held sessions on “Taking the History and Philosophy of Science to School” and “Philosophy of Science and the Context of Science Pedagogy: Historical and Systematic Lessons from the USA in the Past Hundred Years,” organized by Alan Richardson.

The History of Education Society met November 3–6 in Providence, RI, and included a session on “Sources of Scientific and Mathematical Understanding and Ideology: Textbooks and Museums” with a talk by Sean O’Neil of Columbia University. Future meetings include Little Rock, AR, November 1–5, 2017, and Albuquerque, NM, October 31–November 4, 2018. Cambridge University Press has taken over publication of *History of Education Quarterly*.

A workshop on “Teaching mathematics in the early modern world” will be held December 15–16 at All Souls College, Oxford.

The Asian HPST Conference, on the theme “Inquiry in Science and in Science Education: Historical, Philosophical and Pedagogical Dimensions,” will be held December 15–18 at Pusan National University. See [asiahpsst2016.bolog.com](http://asiahpsst2016.bolog.com).

The 10th Congress of European Research in Mathematics Education will be held February 1–5, 2017, in Dublin. Thematic working groups include “History in Mathematics Education” and “Implementation of Research Findings in Mathematics Education.” See [cerme10.org/](http://cerme10.org/).

The AAAS Annual Meeting will be held February 16–20 in Boston.

The 60th gathering of the Midwest Junto for the History of Science will be at Indiana University in Bloomington in early 2017.

Dave Clark of Randolph Macon College is attempting to organize a conference on *wasan* and *sangaku* for April 2017.

The 9th International Conference on Mathematics Education and Society will be held April 7–12 at the University of Thessaly. See [mes9.ece.uth.gr](http://mes9.ece.uth.gr).

A panel on “The Schematization of Time” will be held during the 52nd International Congress on Medieval

Studies May 11–14 in Kalamazoo.

The 2nd International Conference on Mathematics Textbook Research and Development will be held May 11–17 in Rio de Janeiro. Patricio Herbst, Alexander Karp, Jeremy Kilpatrick, Michael Otte, Johan Prytz, and Gert Schubring are on the program committee. Ken Saito is one of the plenary speakers. See [www.sbm.org.br/icmt2/](http://www.sbm.org.br/icmt2/).

The 28th Baltic Conference on the History of Science will be held May 18–20 in Tartu, Estonia. See [www.bahps.org](http://www.bahps.org).

The 14th IHPST International Biennial Conference will be held July 4–7 in Ankara, Turkey. See [ihpst.net](http://ihpst.net).

The Scientific Instrument Commission will hold its XXXVI Symposium July 26–28, during the 25th International Congress of History of Science and Technology in Rio de Janeiro. Approved proposals are due November 25, 2016; see [www.mast.br/sic\\_2017/](http://www.mast.br/sic_2017/). Other approved symposia include 12 sessions on “local, regional, and transregional perspectives on ancient and medieval astronomy,” organized by Alexander Jones and Josep Casulleras; 4 sessions on “mathematics and mathematics education in East- and Southeast Asia in pre-colonial and colonial eras,” organized by Alexei Volkov, Ta Duy Phuong, and Viktor Freiman; ICHM gatherings on “state of the art in the history of mathematics in Iberoamerica” and “the resurgence of applied mathematics 1850–1950: national and international, academic, industrial and military contexts”; 3 sessions on “science in Islamic societies, globally and locally,” organized by Robert Morrison, Len Berggren, and Miquel Forcada; 8 sessions on “global mathematics,” organized by Michael J. Barany, Rogério Monteiro, and Anne-Sandrine Paudmier; 2 sessions on “transmathematics and the philosophy of numbers,” organized by Ricardo Kubrusly, James Anderson, Tiago Reis, and Walter Gomide; and 2 sessions on “naissance des géométries au XIXème siècle.”

The 14th International Conference of the Mathematics Education for the Future Project will be September 10–15 in Balatonfüred, Balaton Lake, Hungary.

Several institutions are sponsoring a conference on “Joseph Banks: Science, Culture and Exploration” September 14–15 at the Royal Society of London. Search for “Joseph Banks” at [www.rmg.co.uk](http://www.rmg.co.uk) and click on “Joseph Banks, Science, Culture and the Re-

making of the Indo-Pacific World.”

The University of Copenhagen has created a professorship with joint responsibility for teaching and research in both History and Philosophy of Science and Science Education. The first to hold this position, and serve as chair of the research group in science studies, is Henrik Kragh Sørensen.

Michael Matthews, [m.matthews@unsw.edu.au](mailto:m.matthews@unsw.edu.au), seeks a second assistant editor to help with the monthly HPS&ST newsletter. See also [www.idtc-iuhps.com/hpsst-note.html](http://www.idtc-iuhps.com/hpsst-note.html).

*Almagest* has published a special issue (vol. 7, no. 1, 2016) on imaging the inscriptions on the Antikythera Mechanism, the 10-year project led by Alexander Jones.

A paper by Ivor Grattan-Guinness is in the 30th number of the *Revista Brasileira de História da Matemática* at [www.rbhm.org.br/vo15-no30.html](http://www.rbhm.org.br/vo15-no30.html).

*Menon Journal of Educational Research* has published a thematic issue, “The Use of History of Mathematics in Mathematics Education.” See [www.edu.uowm.gr/site/node/527](http://www.edu.uowm.gr/site/node/527).

Issue 39–40 of the *Journal of the Antique Telescope Society* contains an English-language translation of a Swedish 1938–1939 paper by NVE Nordenmark and Johan Nordström, “The Invention of the Achromatic and Aplanatic Lens, with Special Regard to the Role Played by Samuel Klingenstierna,” and related appendices. Klingenstierna showed that refracting telescopes can be improved and influenced John Dollond to revisit Newton’s prism experiments.

The complete digital archive of the *Humanistic Mathematics Network Newsletter/Humanistic Mathematics Network Journal* (1987–2004) is now available at [scholarship.claremont.edu/hmnj](http://scholarship.claremont.edu/hmnj).

*Transversal: International Journal for the Historiography of Science* is a semi-annual online journal published by the Graduate Program in History of Federal University of Minas Gerais (UFMG), Brazil. See [www.historiographyofscience.org](http://www.historiographyofscience.org).

Aileen Fyfe announces the booklet, *Academic Women Now: experiences of mid-career women in Scotland*; see [www.youngacademyofscotland.org.uk/images/-Documents/AcademicWomenNow2016FINAL.pdf](http://www.youngacademyofscotland.org.uk/images/-Documents/AcademicWomenNow2016FINAL.pdf).

The *Journal of Mathematics and Culture* seeks submissions on ethnomathematics and other topics. See [journalofmathematicsandculture.wordpress.com/](http://journalofmathematicsandculture.wordpress.com/).

The International Union of History and Philosophy of Science and Technology (IUHPST) invites submissions for the first IUHPST Essay Prize in History and Philosophy of Science. This prize competition, planned to continue on a biennial basis, seeks to encourage fresh methodological thinking on the history and philosophy of science as an integrated discipline. The deadline is November 30. See [www.ichst2017.sbhc.org.br/conteudo/view?ID\\_CONTEUDO=259](http://www.ichst2017.sbhc.org.br/conteudo/view?ID_CONTEUDO=259).

The *Science Museum Group Journal* has launched an annual £500 prize for the young scholar author of the best original research article which addresses research questions around science history, heritage, exhibitions, communications and public engagement. The first deadline is March 1, 2017. Contact [richard.nicholls@sciencemuseum.ac.uk](mailto:richard.nicholls@sciencemuseum.ac.uk).

As the Briscoe Center prepares to open its new reading room in early 2017, the card catalogs have been scanned and placed online at [utexas.app.box.com/v/briscoecenterfindingaids](http://utexas.app.box.com/v/briscoecenterfindingaids). Researchers are also informed that they are now required to pay for public parking.

The Adler Planetarium has a new collections webpage, [www.adlerplanetarium.org/collections](http://www.adlerplanetarium.org/collections).

The Physics Museum at the University of Lausanne may be visited virtually at [museephyisque.epfl.ch](http://museephyisque.epfl.ch).

S. R. Sarma has updated his extensive *A Descriptive Catalogue of Indian Astronomical Instruments*, available online at [www.srsarma.in](http://www.srsarma.in).

Several retired meteorologists have formed the International Meteorological Artifacts Preservation Program, [theimapp.org/](http://theimapp.org/).

## Interact with *MAA Convergence*

*MAA Convergence* is both an online journal on the history of mathematics and its use in teaching and an ever-expanding collection of online resources to help its readers teach mathematics using its history. Founded in 2004 by well-known mathematics historians and educators Victor Katz and Frank Swetz, *Convergence* brings you a variety of interesting articles and teaching tools.

We highlight here some of our newest articles and resources for use in your classroom. Many of them use interactive features to help students understand and explore historical mathematical ideas.

In “Ancient Indian Rope Geometry in the Classroom,”



Figure 3: *Agnicayana* ritual

Cynthia Huffman and Scott Thuong offer information, activities, and applets to help you and your students explore the geometry of altar construction in ancient India. In the photograph, boys work on a model of the bird-shaped fire altar in an *Agnicayana* ritual in Panjal, Kerala, India, in 2011. (Photo courtesy of Professor Michio Yano.)

In “Geometrical Representation of Arithmetic Series,” Gautami Bhowmik explores a geometric tradition in Sanskrit arithmetic texts from Medieval India and shares problems from these texts for your students.

“Historical Activities for the Calculus Classroom,” by Gabriela Sanchis, presents curve-sketching, tangent lines, and optimization in the context of historical problems, and is illustrated by 24 interactive applets and 10 animations.

In “Descartes’ Method for Constructing Roots of Polynomials with ‘Simple’ Curves,” Gary Rubinstein explains and derives Descartes’ methods from his 1637 *Geometry* and illustrates them using interactive applets. The diagram shows a step in the construction of roots of sixth degree polynomials using a ‘Cartesian parabola’ and circles (from GeoGebra applet by Gary Rubinstein).

In “Pythagorean Cuts,” Martin Bonsangue and Harris Shultz answer the question, “Can Euclid’s proof of the Pythagorean Theorem be adapted to shapes other than squares?” and encourage you to pose it to your students.

“Some Original Sources for Modern Tales of Thales,” by Michael Molinsky, features earliest known sources for stories about Thales, and applets illustrating methods attributed to him. The diagram shows how Thales might have measured the distance from ship to shore (from GeoGebra applet by Michael Molinsky).

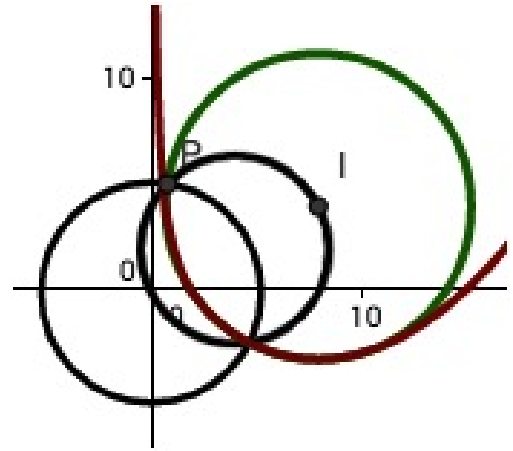


Figure 4: Cartesian method

“A GeoGebra Rendition of One of Omar Khayyam’s Solutions for a Cubic Equation,” by Deborah Kent and Milan Sherman, explains and illustrates how the 11th-century Persian mathematician, philosopher, and poet *geometrically* determined a positive real solution to a cubic equation.

“Edmund Halley, 1740” is an historical poem in which Halley reflects on his role in publishing Newton’s *Principia*, by award-winning Oxford poet Andrew Wynn Owen. “D’Alembert, Lagrange, and Reduction of Order,” by Sarah Cummings and Adam Parker, offers two historical approaches, one familiar and one unfamiliar, to enrich your differential equations course.

In “Euler and the Bernoullis: Learning by Teaching,” author Paul Bedard reflects on lessons he has learned about mathematics teaching and learning from these great mathematicians. In “Can You Really Derive Conic Formulae from a Cone?” Gary Stoudt uses 17 interactive applets to explain how attempts to double the cube led ancient Greek mathematicians to discover and develop the conic sections.

Our “Index to Mathematical Treasures” includes hundreds of images for use in your classroom, including photographs of “The Cambodian (Khmer) Zero” (of 683 CE) by Amir and Debra Aczel. See all of these articles and more at the *Convergence* of mathematics, history, and teaching: [www.maa.org/press/periodicals/convergence!](http://www.maa.org/press/periodicals/convergence!)



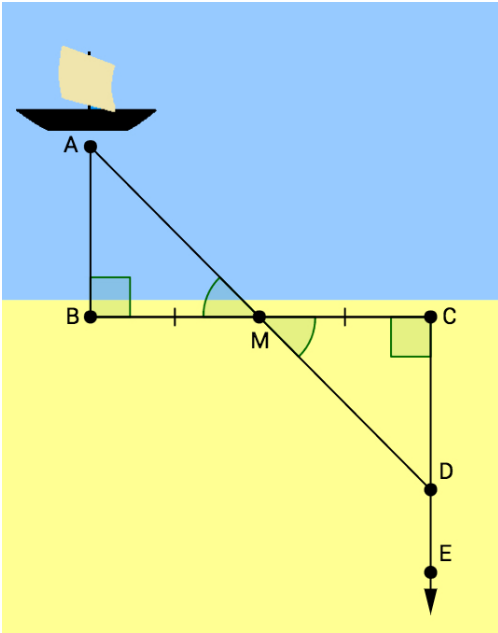


Figure 5: Distance Diagram

Janet Beery

## Joint AMS/MAA Meetings

A number of events in history and philosophy of mathematics have been planned for the Joint Mathematics Meetings, to be held in Atlanta, Georgia, January 4–7, 2017. More information can be found on the MAA or AMS websites: [www.maa.org](http://www.maa.org) or [www.ams.org](http://www.ams.org).

### Wednesday, January 4

- 8:00–10:50, 14:15–18:05: AMS-MAA-ICHM Special Session on History of Mathematics, I and II, organized by Adrian Rice, Sloan Despeaux, and Daniel Otero.
- 18:00–19:50: HOM SIGMAA Business Meeting, Reception, and Guest Lecture.

### Thursday, January 5

- 8:00–11:50, 13:00–15:50: AMS-MAA-ICHM Special Session on History of Mathematics, III and IV.

### Friday, January 6

- 8:00–10:55: HOM SIGMAA Session on Preserving and Writing the History of Mathematics Departments, organized by Lawrence D’Antonio and Toke Knudsen.

- 10:00–10:25: TRIUMPHS (Transforming Instruction in Undergraduate Mathematics via Primary Historical Sources) team speaks during MAA Invited Paper Session on Research in Improving Undergraduate Mathematical Sciences Education: Examples Supported by the National Science Foundation’s IUUSE: EHR Program.
- 14:30–15:50: Presentations by MAA Teaching Award Recipients, including Janet Heine Barnett, “Drinking straight from the source: Learning today’s mathematics through its historical roots.”
- 17:15–18:50: POM SIGMAA Business Meeting, Reception, and Guest Lecture, “Computers, mathematical proof, and the nature of the human mind: a surprising connection,” by Jeff Buechner.

### Saturday, January 7

- 13:00–17:30: POM SIGMAA Session on Do Mathematicians Really Need Philosophy? organized by Carl Behrens and Bonnie Gold.

At press time, an MAA General Contributed Paper Session on History or Philosophy of Mathematics, organized by Emelie Kenney, Kimberly Presser, and Melvin Royer, was planned but not yet scheduled.

## Executive Council Meeting

The meeting of the Executive Council of CSHPM/SCHPM took place at the University of Calgary, Calgary, AB, on May 29, 2016. The following members were present: Amy Ackerberg-Hastings, Patricia Allaire, Eisso Atzema, David Bellhouse, Craig Fraser, Dirk Schlimm, Joel Silverberg, and Richard Zach. Elaine Landry and Maria Zack participated by phone. Dirk Schlimm, Vice-President, called the meeting to order at 12:15 pm.

The agenda for the meeting was approved, and minutes from the 2015 Executive Council Meeting were accepted as printed in the November 2015 *Bulletin*.

**Treasurer’s Report:** David Bellhouse presented two reports, one for 2015 and one for 2016 to date. The 2015 statements were published in the May 2016 *Bulletin*. The following financial statements cover the period 1/1/2016 through 20/5/2016. A conversion factor

## CALL FOR PAPERS / DEMANDE D'EXPOSÉS

**Canadian Society for History and Philosophy of Mathematics  
Société canadienne d'histoire et de philosophie des mathématiques**

**Annual Meeting / Colloque annuel  
Ryerson University/ L'université Ryerson  
May 28-30, 2017 / 28- 30 mai 2017**

**Special Session / Séance Spéciale  
18<sup>th</sup> Century Mathematics /Mathématiques au 18ième Siècle**

**Kenneth May Lecturer / Conférence Kenneth May  
Dr. William Dunham, Department of Mathematics, Muhlenberg College**

The CSHPM will be holding its 2017 Annual Meeting at Ryerson University in conjunction with the 2017 Congress of the Humanities and Social Sciences. The meeting will be held Sunday through Tuesday, May 28-30, 2017.

Members are invited to present papers on any subject relating to the history of mathematics, its use in the teaching of mathematics, the philosophy of mathematics, or a related topic. Talks in either English or French are welcome, as are presentations about work in progress. Graduate students are especially welcome to present their work. All graduate students who present are eligible for the CSHPM Student Award.

Please send your title and abstract (200 words or less) in Word or in the body of an email by February 1, 2017 to:

**SPECIAL SESSION/SÉANCE SPÉCIALE:**

Robert Bradley  
Department of Mathematics  
Adelphi University  
Garden City, NY 11530  
[bradley@adelphi.edu](mailto:bradley@adelphi.edu)

Patricia Allaire  
Department of Mathematics and Computer Science  
Queensborough Community College  
City University New York  
Bayside, NY 11364  
[patallaire@gmail.com](mailto:patallaire@gmail.com)

La SCHPM organise son colloque annuel de 2017 à l'Université Ryerson, dans le cadre du Congrès des sciences humaines et sociales 2017. Le colloque aura lieu du dimanche 28 mai au mardi 30 mai 2016.

Les membres sont invités à faire une présentation sur n'importe quel sujet de l'histoire des mathématiques, son utilisation dans l'enseignement des mathématiques, de la philosophie des mathématiques, ou tout autre sujet connexe. Des présentations en anglais ou en français sont bienvenues, comme le sont les présentations sur des travaux en cours. Les doctorants, en particulier, sont invités à présenter leurs recherches. Tout doctorant qui fait une présentation est admissible au Prix des Étudiants de la SCHPM.

Veillez envoyer le titre de votre exposé, ainsi qu'un bref résumé de 200 mots ou moins en format Word ou à l'intérieur d'un courriel avant le 1 février 2017 à:

**GENERAL SESSION / SÉANCE GÉNÉRALE:**

Eisso Atzema  
Department of Mathematics & Statistics  
University of Maine  
Orono, ME 04469  
[atzema@math.umaine.edu](mailto:atzema@math.umaine.edu)

of 1.31 has been used to convert American dollars into Canadian currency.

	\$ Can.
<b>Income</b>	
dues/subscriptions	6,275.17
CFHSS speaker support	750.00
<b>TOTAL</b>	<b>7,025.17</b>
<b>Expenses</b>	
<i>Proceedings</i> 2014	1,219.40
<i>Philosophia Mathematica</i>	2,984.28
Postage, office expenses, <i>Bulletin</i>	252.82
PayPal service charge	124.47
<b>TOTAL</b>	<b>5,859.11</b>
<b>NET</b>	<b>1,166.06</b>
Bank balance, 05/20/16	34,811.72
PayPal balance, 05/20/16	2,882.01
TD Mortgage Corporation GIC	4,194.75
TD Mortgage Corporation GIC	4,202.85
<b>TOTAL ASSETS</b>	<b>46,091.33</b>

David noted that our bottom line is essentially the same as last year and that the status of the Society has important tax implications.

**Secretary's Report:** Patricia Allaire thanked Mike Molinsky for facilitating the work of the Secretary. She also asked Council whether the Society has a policy as to whether speakers must be members. It was noted that most other organizations have this requirement, and concerns about the current practice of not requiring speakers to be members were discussed. In future years, organizers will encourage speakers who are not already members to join.

Pat presented comparative membership data for 2015 and 2016; once again, contrary to the trend in many other professional organizations, our membership numbers increased slightly for 2016:

	2015	2016
<b>Total Members</b>	145	147
<b>Members By Address or Organization</b>		
Can	30	33
US	85	86
Other	18	9
BSHM	21	19
CSHPS	4	4
Complimentary	2	0

<b>Members By Status</b>		
Active	87	93
Retiree	42	42
Student	7	5
Developing Nation	3	3
Student Associate	2	0
Unknown	4	4
<b>Members by Pay Method</b>		
Online	90	97
Snail Mail	28	26
Reciprocal Members	25	23
Complimentary	2	1
<b>New Members</b>	11	13
<b>Reciprocal Memberships</b>		
To BSHM	51	49
To CSHPS	28	26
<b>Journal Subscriptions</b>		
<i>Historia</i> (paper)	62	58
<i>Historia</i> (electronic)	8	5
<i>Philosophia</i>	32	24
<b><i>Proceedings</i></b>		
Federation	1	1
Hardcover	7	8
Paperback	27	24
Electronic	17	10
<b><i>Bulletin</i></b>		
Paper	41	48
<b>Donations</b>		
No. Donors	18	17
Amount	\$634.50	\$541.00

Pat pointed out that there is some overlap of members in the "by address or organization category" and that the status of reciprocal members from CSHPS is not known. 48 paper *Bulletins* were mailed, 36 to current members, 1 to the Federation, and 11 to those from whom payment was anticipated.

**Bulletin Editor's Report:** Amy Ackerberg-Hastings thanked the co-editors, Eisso Atzema and Maria Zack; the Secretary, Pat Allaire; the Webmaster, Mike Molinsky; and all who contributed articles, reviews, or announcements. All 3 editors are willing to continue in their positions. Amy is happy with how each issue fills up with a nice variety of content, but as always she invites members to send along announcements, memorials, meeting reports, installments for our ongoing columns (primarily Off the Shelf and Book Reviews at present), short articles of interest to histori-

ans and philosophers of mathematics, photos, and the like. Preferred formats are L<sup>A</sup>T<sub>E</sub>X or Microsoft Word (with special characters such as curly quotation marks turned off).

Amy also commented that the needs for timely news and newsletters in 2016 continue to be on the editors' minds. They would like to wait until Council re-evaluates the format and contract for the *Proceedings* (which comes up after the 2016 volume) before deciding on any significant changes to the *Bulletin*.

**CSHPM Notes Editor's Report:** Amy thanked the 2015 contributors: Glen Van Brummelen (2 columns), Amy Ackerberg-Hastings, Len Berggren, and Robert Thomas. On the whole, 2015 was a routine year despite considerable turnover in CMS staff. Amy and co-editor Hardy Grant are both willing to continue in their positions. They would like to address an ongoing imbalance between philosophy and history in column topics; submissions are welcome in both areas, but they would be especially delighted to have additional philosophical pieces. The preferred format for submissions is Microsoft Word, but the editors and CMS can work with authors who want to include formulas or other special formatting.

**Proceedings Editor's Report:** Maria Zack reported via email that the deadline for authors submitting their final papers to the 2015 volume was May 15. She was currently uploading the papers to the Birkhauser publishing site and expected to have the introduction completed and the last of the papers loaded by June 1 (a few authors were finishing up details). 38 speakers promised a paper, 20 were submitted, and 16 were published.

There was some confusion with Birkhauser/Springer's billing department over the 2014 *Proceedings* (they were not set up to bill a group). We seem to have resolved some of the major issues but there are still some minor problems to be addressed. Maria is in the process of asking Birkhauser to send all future bills to her rather than to the CSHPM Secretary. She will work with them to improve their system for billing us and shipping books. Her administrative assistant, who is good at bird-dogging these kinds of issues, will help if needed. Part of the confusion results from the fact that we have three options: e-book, hardback book and paperback book and since Birkhauser is "print on demand" they are doing these at different times and thus generating different bills.

Maria expected that Birkhauser would not send the contract for the 2016 *Proceedings* until August. She planned to be in New York City to see family around then and would meet with our editor, Ben Levitt. She asked Council to encourage people to submit papers for the *Proceedings*. She also asked for a full list of the email addresses of the conference speakers for this year so that she could contact them immediately after the meeting. The instructions for submitting papers as well as the recruiting of referees will occur in mid-July. During the discussion that followed, a December due date for papers was suggested. Amy suggested that longer papers be accepted if fewer papers are submitted.

2016 is our third year of publishing with Birkhauser and thus our contract with them will end around next July with the submission of the 2016 *Proceedings*. So, Maria noted that we should begin conversation about the future. This would give Maria a starting point for her conversation with our editor Ben in August. We need to have a decision before the 2017 CSHPM meeting. Since she has found the work manageable and referees willing to help, she is willing to continue into the future if we stick with Birkhauser or some similar arrangement where the typesetting, printing, etc. is done by an outside resource and if people continue to be willing to referee. Co-editor Elaine Landry would decide later whether to continue. Craig suggested we renew with Birkhauser for another 3 years. A motion was made, seconded, and passed.

Finally, Maria thanked this year's group of referees: Amy Ackerberg-Hastings, Tom Archibald, Janet Barnett, June Barrow-Green, David Bellhouse, Maria Boyko, Daniel Curtin, Dave DeVidi, Tom Drucker, Craig Fraser, Hardy Grant, Elaine Landry, Jean-Pierre Marquis, Duncan Melville, Fred Rickey, Dirk Schlimm, Joel Silverberg, Jim Tattersall, and Glen Van Brummelen.

**CSHPM Student Award:** Maria Zack reported that, even though we did some cajoling and encouraging, no graduate student papers were submitted to the *Proceedings* (we had only two graduate student speakers). So there was no contest to judge for 2015. We are hoping that we have better success in 2016. If not, we may want to reconsider the requirements for the prize.

Pat suggested supplementing donations to make the award a more enticing \$1,000 (the 2013 and 2014 prizes

were \$750 and were based on rounding up each year's donations). Joel remarked that the prestige of the award is of value to the winner. Maria will make sure all student speakers are aware of the award.

**Webmaster's and Archivist's Reports:** By email, Mike Molinsky reported that he has continued to maintain and update the society website and email listservs. As Archivist, he has continued the work of organizing both the physical and digital archives and creating digital copies of all physical materials in the archives.

**Phil Math Preprint Archive:** Elaine reported PhilMath is ready to go; a variety of groups are involved including pedagogy. Procedures for handling cranks, as well as a process for uploading, should be set up by the end of the summer. This timeline agrees with the one in the President's Report in the May 2016 *Bulletin*. A volunteer is needed from CSHPM.

**Future Meetings:** HSSFC will be meeting in Toronto in 2017. Since this is a desirable location and our default is to meet with Congress, we will do so in 2017. Craig Fraser volunteered to be the local organizer. Eisso Atzema volunteered to organize the general session. Possible topics for the special session were Pedagogical Implications of History and Philosophy of Math, 18th-Century Mathematics, and Geometry. Possible May speakers mentioned were Bill Dunham and Stephen Stigler.

In 2018, Congress will be in Regina, which is not convenient for a significant number of our members. In view of this as well as the fact that we wish to foster our relationship with CMS, we will consider meeting with CMS as soon as we know their planned location. Other possibilities are an independent meeting, perhaps in Montreal at CRM, at MathFest in Denver, or another joint meeting with BSHM.

**CMS Liaison:** Dirk expressed thanks to Tom Archibald who has been the liaison for several years. A volunteer is needed to fill the position. Amy noted that it would be worthwhile to have a history and philosophy session at winter CMS meetings in 2017 and beyond.

**Grattan-Guinness Papers Project:** Amy Shell-Gellasch from HOM SIGMAA has asked if we would consider donating to a project to process and preserve the Ivor Grattan-Guinness papers. The proposal is as follows:

"The Archives of American Mathematics, a research

component of the Dolph Briscoe Center for American History (Briscoe Center) at the University of Texas at Austin, proposes to process and preserve the Ivor Grattan-Guinness Papers. The project will entail hiring and managing an intern to arrange, describe, and catalog the collection. We estimate that the project will take 4 months and will cost approximately \$10,682. The archive is 27 linear feet of material that includes both paper documents and photographs. The collection covers a wide range of his professional and personal interests, and includes his extensive notes from visits to archives, especially in England and France, his extensive correspondence with mathematicians, lecture notes from courses he taught, material from society meetings and conferences he attended, including photographs from Oberwolfach meetings, committees on which he sat, and his own student notes from Oxford in the 1960s."

We do have the funds available to do so, and will bring the question to the membership at the AGM.

**2016 Election:** So far, all votes have been electronic. Paper ballots may be given to the Secretary until one hour before the AGM tomorrow. Results will be announced at the AGM.

**Other Business:** Dirk expressed thanks to the Council, Editors, and Conference Organizers.

The meeting was adjourned at 1:55 pm.

*Patricia Allaire, Secretary*

## Quotations in Context

"Man muss immer generalisieren."  
[One must always generalize.]  
"Man muss immer umkehren."  
[One must always invert.]

The above quotations frequently appear in modern publications, both in works of mathematics as well as in other subject areas (the second quotation seems to be particularly popular in the field of finance, for example). While all of these modern sources attribute both sentences to the 19th century mathematician Carl Jacobi, none of them provide a primary source or any original context for the quotations.

The oldest work that I've managed to locate that contains either of these quotations is "Current Tendencies of Mathematical Research" by Edward B. Van Vleck, which appeared in the October 1916 issue of the *Bul-*

*letin of the American Mathematical Society* (Vol. 23, No. 1, pp. 1-13). Professor Van Vleck was a faculty member at the University of Wisconsin-Madison and a past AMS president (1913–1914), and this paper contains an address he presented during the University of Chicago’s Quarter-Centennial celebration.

The paper begins by exploring examples of how specific problems provided influence and direction to the development of mathematics during various historical periods, which leads Van Vleck to ask the question, “What are the central problems in the mathematical research of to-day?” He offers the topic of infinite sets as one possible answer to the question. It is at this point in the paper that the second quotation of this column appears:

The characteristic tendency in the thought of to-day which I have tried to grasp under the comprehensive term “Problem of the infinite set” is shown rather as a current beneath the surface than in any individual concrete problem. The average investigator must perforce seize upon any problem which his brains find at hand. There exist, however, certain fundamental principles which will aid him in finding a worthy one. The great mathematician Jacobi is said to have inculcated upon his students the dictum: *Man muss immer umkehren*. One must always seek a converse, turn a thought the other end to. It was by turning the elliptic integral inside out that Jacobi obtained his splendid theory of elliptic and theta functions.

In the very next paragraph of the paper, the first quotation of this column appears; however, in this case Van Vleck does not attribute it to Jacobi, but instead claims it as his own invention:

Without dwelling further upon the fertility of Jacobi’s dictum, I wish to coin and put beside it another obvious dictum of yet wider reach: *Man muss immer generalisieren* [*sic*].

Later in the paper, Van Vleck repeats both quotations and again distinctly gives Jacobi credit for “*Man muss immer umkehren*,” but not for the other quotation. While it is possible that Jacobi used the same phrase without Van Vleck being aware of it, the contents of this paper and the lack of any apparent earlier sources

suggests that Van Vleck is the true, original source of the “generalize” version of the quotation.

As for “*Man muss immer umkehren*,” while Van Vleck does attribute it to Jacobi, he provides no details on his source for the quotation; further, since he only claims that Jacobi “is said to have” made such a statement, it seems clear that Van Vleck didn’t derive the quote directly from any of Jacobi’s works. While I haven’t been able to examine every single book, paper or letter written by Jacobi, my inability to find any source prior to 1916 that contains even a passing reference to this quotation raises the possibility that it also may be misattributed and not truly originate with Jacobi.

*Mike Molinsky*

## Grattan-Guinness Archival Research Travel Grants

The estate of the late Professor Ivor Grattan-Guinness has established a limited number of career development grants to assist scholars in the early stages of their research careers in the fields of the history and philosophy of mathematics and logic as well as in the history of mathematics education and its bearing on contemporary problems.

Grattan-Guinness Archival Research Travel Grants are open to doctoral students or scholars with no more than six years of post-doctoral research in the history and/or philosophy of mathematics and/or logic and/or mathematics education. Grants will be made specifically to enable travel for research at an archive of the recipient’s choice. Grants are expected to contribute to, but not fully cover, the total cost of the proposed research project. Indeed, additional funding from other sources is highly recommended, as this grant is intended to assist with travel expenses, rather than to subsidize a research project in its entirety. Therefore submission of research proposals to other funding agencies does not affect their eligibility for a Grattan-Guinness Grant.

Further details:

1. All grants will be made on the basis of the merit of the proposal, with no regard to nationality, institutional affiliation, etc.
2. No grant will exceed 3,000 US dollars.

3. No grant will be made to support work carried out by undergraduates, master's students, or scholars with more than six years of post-doctoral experience.
4. Publications, presentations, exhibits, or subsequent external funding resulting from work undertaken using this grant must acknowledge its support.
5. A final report summarizing the work undertaken with the support of the grant must be submitted to the administrators within sixty days of the proposed date of the project's completion.
6. No grant will be made if no proposal received is deemed sufficiently meritorious.
7. Proposals must adhere to the following format:

- Title Page: This should include the title of project, name of applicant, institution, country, date, and archive(s) to be visited.
- Abstract: A concise summary of the main features of the proposal including the beginning and ending dates.
- Background: A brief review of recent and/or current work on the proposed topic.
- Objectives: Goals to be achieved by the research project.
- Significance: How the archival visit will enhance or further the project.
- Justification: How the project will contribute to the discipline of the history of mathematics, the philosophy of mathematics, the history of logic, the philosophy of logic, or the history of mathematics education.
- Budget: A brief outline of proposed expenditure during the archival visit.
- Previous Work: A brief summary of any prior research undertaken by the applicant.
- Other Support: A statement of all current and pending financial support for the project.
- References/Bibliography.

Applicants should also attach a Curriculum Vitae as a separate document and arrange for a confidential letter of recommendation from their research supervisor to be sent electronically to the e-mail address below.

8. Proposals must be limited to 3,000 words, excluding Title page and References/Bibliography. The proposal must be double-spaced and prepared with a 12-point font. Proposals that do not conform to these requirements will not be considered.

9. Proposals must be submitted electronically to the administrators at [ggrant.grant@gmail.com](mailto:ggrant.grant@gmail.com) by 31 December 2016.
10. Applicants will be informed of the outcome of their application by 15 February 2017.

*Karen Parshall for the Grattan-Guinness Grant Committee*

## Annual General Meeting HSSFC

The Annual General Meeting of the General Assembly of the Federation for the Humanities and Social Sciences has moved from April, when it was held in conjunction with HSSFC's annual conference, to the week of Congress. (The annual conference in Ottawa, meanwhile, has moved to November; see Hardy Grant's report in our May 2016 issue.)

The General Assembly is made up of representatives from the Federation's member associations and institutions. It meets annually to receive annual reports and financial statements, sanction changes to the by-laws, approve applications from new members, and discuss topics of relevance to the humanities and social sciences community. A Nominating Committee identifies candidates for the Board of Directors; if additional candidates stand for positions during an open nominating period each January and February, then the General Assembly also votes for the Board of Directors.

This year's AGM was held on May 29 and included dinner to entice attendees. Most of the time was taken up with awarding the Federation's Canada Prizes for the best books in English and French on humanities and social sciences published in Canada in the previous year. A list of winners may be viewed at [www.ideas-idees.ca/events/canada-prizes](http://www.ideas-idees.ca/events/canada-prizes). My main takeaway was that McGill-Queen's University Press is the leader in Canadian academic publishing.

During the business meeting, delegates approved a series of amendments to the Federation by-laws that were intended to: a) give all members the same status instead of, for instance, putting scholarly societies and universities in different categories; and b) bring some wording about elections and the purposes of the Federation in line with current practices. New and departing board members and new association and institution members were recognized. The financial re-

ports were received. The informational packets distributed to representatives are available on the Federation's website, under Leadership, General Assembly. President Stephen Toope then talked about archival work underway for the Federation's 75th anniversary, the strategic plan for 2016–2020, and promoting engagement with individuals and member societies. He also discussed ways for the Federation to connect to the new government's innovation agenda and to its ongoing efforts at reconciliation.

The definition for a representative suggests that the Federation envisions those people serving as ongoing liaisons between the Federation and member societies. However, everyone at my table (a historian, a librarian, a communications professor, an English professor, and a film professor) was pressed into service just for this meeting. Congress is becoming a central location for doing the work of the national organizations, as SSHRC also held two work sessions (on May 29 and June 2) for developing policy for research data management.

*Amy Ackerberg-Hastings*

## AGM of CSHPM/SCHPM

The Annual General Meeting of the Canadian Society for History and Philosophy of Mathematics took place at the University of Calgary, Calgary, AB, on May 30, 2016. The meeting was called to order at 12:15 pm by Dirk Schlimm, Vice-President, with 22 members in attendance.

### Agenda for the General Meeting

1. Approval of agenda
  2. Approval of minutes of 2015 AGM
  3. Treasurer's report
  4. Secretary's report
  5. *Bulletin* Editor's report
  6. CSHPM Notes Editor's report
  7. CMS Liaison
  8. *Proceedings* Editor's report
  9. Webmaster's and Archivist's reports
  10. Phil Math Preprint Archive
  11. Future Meetings
  12. Ivor Grattan-Guinness Papers Project
  13. Thanks from the President
1. The agenda for the general meeting was approved.

2. Minutes from the 2015 AGM were accepted as printed in the November 2015 *Bulletin*.
3. David Bellhouse presented the reports described in the Executive Council meeting minutes.
4. Patricia Allaire announced the Council election results. 58 electronic ballots and zero paper ballots were received. All nominees were elected: *President*, Dirk Schlimm; *Vice-President*, Maria Zack; *Secretary*, Patricia Allaire; *Treasurer*, Greg Lavers; *Council*, Craig Fraser, Jean-Pierre Marquis, Karen Parshall, and Joel Silverberg.

She also presented comparative membership data for 2015 and 2016. (Please refer to the CSHPM Executive Council Minutes in this issue of the *Bulletin* for the data.) Once again, contrary to the trend in many other professional organizations, our membership numbers increased slightly for 2016.

Finally, Pat noted that on-line membership requests and requests for the *Bulletin* in electronic format are increasing. Donations, however, are decreasing. One factor may be that retirees now pay for the *Proceedings*. When the *Proceedings* were free to retirees, many chose to pay—a payment that was reported as a donation.

5. Amy Ackerberg-Hastings repeated the points reported in the Executive Council meeting minutes.
6. Amy Ackerberg-Hastings repeated the points reported in the Executive Council meeting minutes.
7. Tom Archibald has been our liaison to CMS for several years and now wishes to have someone replace him. It is valuable to CSHPM to maintain our relationship with CMS. A volunteer is needed to organize a History of Math session at CMS Winter Meetings. Maritza Branker volunteered.
8. Dirk Schlimm read the report from Maria Zack and Elaine Landry that is described in the Executive Council meeting minutes. In the discussion that followed, the amount of the CSHPM Award was set at \$1,000. Maria will contact student presenters immediately after the Calgary meeting and encourage them to submit their papers to the *Proceedings*. By consensus, members approved renewing our contract with Birkhauser. The editors for the 2016 *Proceedings* will be Maria and Dirk.
9. Dirk Schlimm read the reports from Mike Molinsky that are provided in the Executive Council meeting minutes.



10. Dirk Schlimm read the report from Elaine Landry that appears in the Executive Council meeting minutes. In the absence of a volunteer from the general CSHPM membership, Dirk agreed to be our representative to the Phil Math Preprint Archive board.

11. HSSFC will be meeting at Ryerson in Toronto in 2017. Since this is a desirable location and our default is to meet with Congress, we will do so in 2017. Congress dates are May 27–June 2. Specific dates for CSHPM are to be determined. Craig Fraser volunteered to be the local organizer. Eisso Atzema volunteered to organize the general session. The ideas generated by the Executive Council for the special session and May Speaker were mentioned.

In 2018, Congress will be in Regina, which is inconvenient for a significant number of our members. In view of location, as well as the fact that we wish to foster our relationship with CMS, we will consider meeting with CMS as soon as we know their planned site. Other possibilities are an independent meeting, perhaps in Montreal (at CRM), at MathFest in Denver, or an overseas joint meeting with BSHM. We will wait to find out where CMS is meeting in 2018 before making a decision.

12. The proposal for processing the Ivor Grattan-Guinness Papers appears in the Executive Council meeting minutes. In the discussion after the proposal was presented, a member commented that the library should have the funds to do this. Others noted that this is a very worthwhile project. The contents will be most useful to researchers. CSHPM will give \$2,000 toward the project.

13. Dirk expressed thanks to the local organizer (Richard Zach), session organizers (Eisso Atzema, Tom Drucker, and Duncan Melville), David Bellhouse for the local tourist information, the members of the Executive Council, the Nominating Committee, the session chairs, and Amy Ackerberg-Hastings, Hardy Grant, Eisso Atzema, and Maria Zack.

The meeting was adjourned at 1:10 pm.

*Patricia Allaire, Secretary*

## From the Archives: Invited Speakers

There have been invited speakers at the majority of the CSHPM Annual Meetings, usually in association with the special session topic of that meeting. In most cases, there has been a single, keynote address, but on a few occasions there have been two or more guest speakers. As a memorial to Kenneth O. May, a fund was established in 1977 to raise money to help underwrite the costs of inviting a guest speaker to each meeting, and at the 2002 AGM, the keynote address was officially named the Kenneth O. May Lecture in his honor.

In the list below, I have omitted any years in which there is no evidence of an invited speaker at the meeting, as well as a few joint meetings with the British Society for History of Mathematics that contained a substantial number of plenary speakers. Also, please note that *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*, edited by Glen Van Brummelen and Michael Kinyon, contains full versions of twelve lectures from 1990 to 2003 and is available from Springer.

- 2017** — William Dunham, title to be announced
- 2016** — James Tappenden, “Frege, Carl Snell and Romanticism: Fruitful Concepts and the ‘Organic/Mechanical’ Distinction”
- 2015** — Karen Hunger Parshall, “We Are Evidently on the Verge of Important Steps Forward: The American Mathematical Community, 1915–1950”
- 2014** — Michael Williams, “John Napier, His Life and Work”
- 2013** — Jeremy Gray, “Henri Poincaré: Mathematician, Physicist, Philosopher”
- 2012** — Andrew Hodges, “What Does Alan Turing Tell Us About the History of Science?”
- 2010** — Hardy Grant, “Mathematics and the Liberal Arts: The Beginnings”
- 2009** — Jeremy Gray, “Mathematics, Motion, and Truth: the Earth Goes Round the Sun”
- 2008** — Glen Van Brummelen, “In Search of Vanishing Subjects: The Study of Trigonometry before ‘Trigonometry’”
- 2007** — C. Edward Sandifer, “Five Pearls of Euler”
- 2006** — Chandler Davis, “If It’s Real How Can It be Certain”

- 2005** — J. L. Berggren, “Currents and Counter-Currents in the History of Mathematics in Medieval Islam”
- 2003** — Jim Bennett, “Geometry, Instruments and Navigation: Agendas for Research, 1500–1800” [Note: While Jim Bennett gave the Kenneth O. May lecture, another invited speaker was Lesley Cormack, “The Grounde of Artes: Robert Recorde and the Role of the Muscovy Company in an English Mathematical Renaissance”]
- 2002** — Ivor Grattan-Guinness, “History or Heritage? Historians and Mathematicians on the History of Mathematics” [Note: In addition to his own paper, Grattan-Guinness also read a paper by Albert Lewis, “Kenneth O. May and Information Retrieval”]
- 2001** — Jean Dhombres, “The Applied Mathematics Origins of Lebesgue Integration Theory and Why it was Read as Pure Mathematics During the First Years of the 20th Century”
- 2000** — Rüdiger Thiele, “Hilbert and his 24 Problems”
- 1998** — Volker Peckhaus, “19th Century Logic — Between Philosophy and Mathematics”
- 1997** — Rüdiger Thiele, “The Mathematics and Science of Leonhard Euler”
- 1996** — Alexander Jones, “Greek Applied Mathematics”
- 1995** — Joseph W. Dauben, “Cantor and the Epistemology of Set Theory”
- 1994** — Thomas Archibald (with co-author Louis Charbonneau), “Mathematics in Eastern British North America in the Nineteenth Century: Some Preliminary Remarks,” and Karen Hunger Parshall, “The Emergence of the American Mathematical Research Community 1876–1900”
- 1993** — Stuart Shanker, “Turing and the Origins of Artificial Intelligence”
- 1992** — Michael Closs, “The Ancient Maya: Mathematics and Mathematicians”
- 1991** — Ann Hibner Koblitz, “Women in Mathematics: Historical and Cross-Cultural Perspectives”
- 1990** — Judith Grabiner, “Was Newton’s Calculus a Dead End? A New Look at the Calculus of Colin Maclaurin”
- 1989** — Joan L. Richards, “Rigor and Revolution”
- 1988** — Helena Pycior, title unknown [Note: the program for the 1988 Annual Meeting does not contain the title, although the November 1988 *Bulletin* does state that it dealt with “Charles Darwin’s relationship with mathematics”]
- 1986** — Nathan S. Mendelsohn, “The Unusual Teaching Methods of Samuel Beatty,” and Gregory H. Moore, “From Frege to Skolem: The Rise of First-Order Logic”
- 1985** — Albert Lewis, “Bertrand Russell as a Mathematician”
- 1982** — A. John Coleman, “Mathematics in Canada: 1935—Some Anecdotes and Some Dogmatic Opinions,” and Carolyn Eisele, “Charles S. Pierce — Mathematician”
- 1980** — Maurice L’Abbé, “Montréal et le développement des mathématiques au Canada et au Québec”
- 1979** — Unknown [Note: The archives contain no program for this meeting, but the 1979 AGM minutes do state that there was an “invited talk.”]
- 1978** — Thomas W. Hawkins, “Descartes and the Mathematical Revolution of the 17th Century”
- 1977** — J. Dieudonné, “Recent History of the Theory of Linear Partial Differential Equations”
- 1976** — Asger Aaboe, “The Scientific Foundations of Ancient and Mediaeval Cosmology”
- 1974** — J. L. Berggren, “Archimedes’ Contributions to the Development of Statics,” Stillman Drake, “Continuity and Discreteness in Early Theories of Free Fall,” and H. S. M. Coxeter, “The Space-Time Continuum”

*Mike Molinsky*

## Ohio Section 100th Annual Meeting

The Ohio Section of the Mathematical Association of America held its 100th Annual Meeting on April 8–9, 2016. The program included invited addresses by: Frederick Rickey, “Benjamin Franklin Finkel: The Man on the Ball,” Danny Otero, “Gottfried Wilhelm Leibniz (1646–1716): an Academy in Himself,” and Jenna Carpenter, “Top Secret: Women’s Contributions to the History of Computing.”

Attendees at the meeting were offered a copy of the 240-page *Centennial History of the Ohio Section of the Mathematical Association of America, 1915–2015*.

Those interested in purchasing a copy should contact the Ohio Section Treasurer, Brian Shelburne, *bshelburne@exchange.wittenberg.edu*. A (free) PDF version is available on-line at [sections.maa.org/ohio/History/CentennialHistory2016.pdf](http://sections.maa.org/ohio/History/CentennialHistory2016.pdf).

*David Kullman*

## Three Societies in Edmonton

I missed our CSHPM conference in Calgary this spring because I was in Alberta for another conference a month later. From Wednesday, June 22, to Saturday, June 25, the British, Canadian and American (BSHS-CSHPS-HSS) history of science societies held our Eighth Quadrennial Joint Meeting, on the theme “Transitions,” at the main campus of the University of Alberta.

I had attended the 1992 University of Toronto meeting, but as an interested outsider. This time I served as a member of the programme committee. I didn’t give a paper, but we did have to read through a couple hundred abstracts and debate their pertinence.

I arrived a day early to check into my residence room and to meet the large campus populations of magpies and jackrabbits. On Wednesday, before the opening Welcome and Plenary, I went downtown on Edmonton’s quick and comfortable LRT with a spectacular crossing of the North Saskatchewan River.

There, after a morning coffee at the central Churchill Square, I visited the main branch of the Edmonton Public Library for a short research session. I was directed to their local history room on the second floor. I soon discovered a bound volume of the *Edmonton Farm Journal* for 1924, the year of the Toronto International Mathematical Congress. The IMC’s grand Western Excursion had stopped in Edmonton. This visit was extensively reported, as were the earlier proceedings in Toronto, such as R.A. Fisher’s lecture on how statisticians could help farmers. Staff was very helpful and didn’t charge for my photocopies.

There were three afternoon plenaries (Wednesday to Friday): Erika Dyck (U. of Saskatchewan) examined Canadian population control policy for the Aboriginal people of the Far North and local resistance, Lawrence Principe (Johns Hopkins U.) looked at recreating historic scientific practices, and Aileen Fyfe (U. of St. Andrews and also our BSHM Programme Commit-

tee partner) delivered a history of the Royal Society’s *Philosophical Transactions*.

In addition to the informal programme of schmoozing over our on-site buffet breakfast and going out for lunch to the various eateries along the southern and eastern edges of campus, events were planned every evening. For instance, an opening reception at the Centennial Centre for Interdisciplinary Studies was held after the opening plenary. There I was able to touch base with old friends from previous conferences and trade research notes with scholars from several continents.

On Thursday we were back downtown, adjacent to Churchill Square and Edmonton City Hall, for an elegant reception at the Art Gallery of Alberta. I met the representative of Birkhauser, the publishers of our CSHPM *Proceedings*. Together we left the reception early to actually see the AGA exhibits, especially “The Group of Seven Indigenous Artists.” We discussed the art in German, though mine was rather halting. Luckily the Birkhauser rep was very patient.

Friday evening featured *Radical*, a play by Charles Hayter. I missed it because I was at Kabbalat Shabbat at Beth Ora, Edmonton’s Reform synagogue, across the river. The conference ended on Saturday with the Grand Banquet at the well-appointed U. of A. Faculty Club. Their fine Canadian art collection even included a few pieces by Alex Janvier, whose work was featured at the AGA. The excellent food and reasonably priced distillates made for a convivial and satisfying conclusion of our efforts.

Most of our time was spent in three full days of sessions running at 9:00 am, 11:00 am and 2:00 pm, usually with six concurrent sessions in each slot with either four or three papers. While only *history* of science papers had been selected, they covered a wide geographic, temporal and disciplinary range.

Friday, June 24 at 11:00 am was a typical slot with these themes: 1) Postwar Encounters Between Design, Mathematics and Engineering; 2) Institutional Transactions of Early Modern Science; 3) Evolution and Natural History in the 19th Century; 4) Perception of Ideas Between Science and Technology; 5) Indian Science; 6) Cultural Biographies of Electricity in Russia, India and Britain. Panels 1), 2) and 6) had been offered to our Programme Committee as already organized sessions. I attended 6) because of its importance to the core of my own research project, the

August 1924 Toronto meetings of the IMC and BAAS. The papers came out of an international consortium based at Leeds University in Yorkshire, England, with the session chair from there along with two of the presenters, Animesh Chatterjee (“Marketing Electricity as Everyday Technology in Urban Colonial India”) and Paul Coleman (“Electrical Advertising in Inter-war Britain”). Natalia Nikiforova (St. Petersburg U.) looked at the “Marketing Strategies of Foreign—especially German—Electrical Companies in Imperial Russia.”

CSHPM conferences feature many papers from astronomy, which was also well-represented at Edmonton, though there were only two dedicated sessions: “Performing Astronomy Since the 18th Century” and “Astronomy From the Naked Eye to the Edge of Knowledge.” Astronomical topics were also scattered throughout the sessions, such as: Dark Stars under “Alternative Knowledge,” colonial astronomy under “Science from the Edge of Knowledge,” and US space science in Boulder, Colorado, under “Science in the Cold War.”

Unfortunately, I missed Ari Belinsky’s “Groping Toward Linear Regression Analysis: Newton’s Analysis of Hipparchus’ Equinox Observations,” in the session “Newton Redux,” because it was opposite “Performing Astronomy.” That session was organized by Jan Golinski, who also recounted the tale of “The *Eidourian* of Adam Walker and His Sons in 18th-century Britain.” Their astronomical demonstrations were big show biz! Charlotte Bigg examined “The Point of View Inculcated by Planetaria,” especially in early 20th-century Germany. Pedro Roposo (Adler Planetarium) highlighted his institution’s involvement in the 1893 and 1933–1934 Chicago World’s Fairs. It’s worth noting that what’s now considered to be the zeroth ICM was part of Chicago 1893. Robert Smith wrapped it all together with his concluding commentary.

A strictly mathematical session was Theodora Dryer’s (U. California Davis) “The ‘Pure’ and ‘Applied’ in the History of the Mathematical Sciences.” Her own paper looked at “Confidence in Statistics in Depression-Era Planning.” Tinne Hoff Kjeldsen examined “The Theory and Practice in 20th-Century Mathematical Modeling.” Theodore Porter spoke on “The Mathematics of Human Defect, 1908–1935.” Emily Redman was able to directly compare “The Pure and Applied

in Early American Textbooks.”

This is but a taste of the wide range we covered.

I was able to stay in Edmonton for another two and a half days, all well spent. As recommended, I spent the Sunday at Historic Fort Edmonton, which recreates four moments in local history: 1845: Hudson Bay post; 1885: Isolated prairie town; 1905: Railway boomtown; 1925: Metropolis. Just like the public library, the Fort Edmonton staff generously helped with my research project.

Monday I was back downtown, first touring the Legislative Grounds, which contain the actual site of Fort Edmonton. For my lunch break I commuted by historic 1910 Edmonton streetcar, by way of the High Level Bridge, to a brew pub in Old Strathcona. For the afternoon, I took the tour of the Alberta Legislative Building. Yet again their helpful legislative librarians assisted with my research.

Tuesday morning was a whirlwind tour of the University of Alberta Museums. Especially impressive were the Paleontology and Mineralogy Museums, coolly parked in the basement of their Earth Sciences Building. Then it was time to head south to the airport to catch my return flight to Toronto.

*David Orenstein*

## COMHISMA12 in Marrakech

The Twelfth International Colloquium on History of Arabic Mathematics was held in Marrakech, Morocco, 25–28 May 2016. The colloquium meets approximately every two years, rotating in turn from Tunisia to Algeria to Morocco. This meeting of the Colloquium brought together approximately 35 delegates who enjoyed some 25 paper presentations demonstrating a wide range of approaches to history of mathematics. As one would expect, the majority of delegates came from North Africa, although there were also several from Europe and the United States and even as far away as Brazil.

In addition to exploration of new issues in history of mathematics, there were papers exploring a wide variety of problems and approaches in the field. Ahmed Djebbar (France) opened the conference with a plenary address on the role of mathematics in the practice of religious law in medieval Islam, an area that has seen little study from modern historians of mathe-

matics. Ezzaim Laabid (Marrakech) also explored the interface between inheritance law and mathematics in a paper analyzing the work of Ibn May‘ūn al-Zahrī (12th–13th century).

Mahdi Abdel Jaouad (Tunis) gave an overview of recent discoveries during his continuing research on translations of European mathematics textbooks into Arabic. His paper focused on two translators, each named Antoun Boulad, who worked in Tunis during the 19th century, describing the difficulties in establishing their identities. Abdelkhalek Cheddadi (Rabat), on the other hand, described the more traditional mathematical activities of sheikh M’hammad b. Muhammed al-‘Alamī (died 1954), a Moroccan *muwaqqit* (mosque time-keeper), whose mathematical work, a didactic versification in traditional form, revealed assimilation of modern techniques through its use of decimal logarithms, rather than sexagesimal fractions for calculations.

Jean Christianidis (Athens) revisited the historical question of “algebraic geometry”, arguing that some earlier historians have erred by failing to draw a distinction between modern and pre-modern algebra. (Pre-modern algebra was essentially a problem-solving technique for assigning specific values to unknowns. Modern algebra, on the other hand, is a largely abstract exercise investigating characteristics of indeterminate equations.) If one reads pre-modern algebraic geometry through the lens of modern algebra, the stage is often set for misunderstanding traditional algebra and its geometrical manifestations. In another historical overview, Jeff Oaks (Indianapolis) outlined the shift from geometrical to arithmetical proofs found in algebra treatises written in the Maghreb in the late medieval period.

Gert Schubring (Rio de Janeiro) built on recent studies of diagrams in medieval geometry. His paper applied these techniques to study the complex composite diagram in the appendix to book I of Quṭb al-Dīn al-Shīrāzī’s Persian translation of al-Ṭūsī’s *Taḥrīr Kitāb Uqlūdis* (included in the Persian philosophical compendium, *Durrat al-Tāj*) as an example of how medieval geometers used principles of “synthesis”. His results suggested the possibility that al-Shīrāzī may have been influenced by the Arabic transmission of al-Ḥajjāj. In a parallel approach, Ahmed Nouar and Amal Lebza (Algeria) discussed the chapter on magic squares built on the alphanumeric values of the letters

in the traditional 99 names of Allah contained in an influential treatise by Ahmed al-Būnī (died 1225 CE). They applied typologies of magic squares to resolve inconsistencies and errors in the manuscript and early printed versions of the treatise.

In keeping with the traditional focus of the Colloquium on mathematics in the Maghreb, and in recognition of the host city of Marrakech, Bennacer Bouazzati (Rabat) described mathematics in Marrakech at the time of Ibn Rushd (Averroes). His paper was complemented by a survey of mathematical activities in Marrakech during the 19th and 20th centuries by Pierre Ageron (Caen, France), which brought the conference to a close. Although quite different in narrative approach, these two papers illustrate the wide range of historical period covered in the Colloquium.

There were, of course, additional papers devoted to important mathematicians of the Maghreb and their specific contributions to mathematics:

- Bouzari Abdelmalek (Algiers) surveyed the development of the concept of “equation” in Arabic algebra, focusing mainly on authors from the Maghreb.
- Rachid Bebbouchi (Algiers) offered some thoughts on the difficulties facing the introduction of decimal fractions into the Arab world, focusing specifically on the case of Algeria.
- Driss Lamrabet discussed a work by Ibn Simāk (14th century) on surveying or practical applications of geometrical measurements, reinterpreting some aspects of the earlier work on Ibn Simāk by the historian A. Saidan.
- Ahmed Moslih (Kenitra, Algeria) introduced a treatise on computational algorithms by a late-14th-century Tunisian scholar, al-Qatrawānī, whose work was independent of, but followed the same approach as, that of the better-known arithmetical work by Ibn al-Bannā’ (died about 1321 CE), *Talkhīs A‘amāl al-Ḥisāb*.
- Safia Sahli (Algeria) surveyed some features of number theory in the Maghreb, noting both the development of terminology and styles of demonstration.

Several papers were somewhat more philosophical in approach:

- Marouane BenMiled (Tunis) discussed different uses of the term “number” in the *Algebra* of al-

Khwarizmi and gradual refinement of the understanding of “number” leading to the abstract formulation of al-Karajī (11th century CE).

- Abdellah El Idrissi (Rabat) discussed the notion of area in the history of mathematics.

And there were several papers on Arabic mathematics outside the Maghreb:

- Gregg De Young (Cairo) discussed the summary of Euclidean geometry in Avicenna’s philosophical compendium, *Kitāb al-Shifā’*, with a special focus on its evidence concerning the early transmission of the Elements into Arabic.
- Jens Høyrup (Copenhagen) offered new insights into the Latin *Liber mahamaeth* and its possible sources in Maghreb practical arithmetic/calculation manuals.
- Slim Mrabet (Gafsa, Tunisia) surveyed the “Theorem of Thales” with a special focus on its use by Ibn al-Haytham.
- Abdelaziz Razouki (Marrakech) turned his attention to the development of mathematical astronomy among the Arabs to argue that science (including mathematical sciences) is never completely divorced from the social context in which it develops.
- Randy Schwartz (Schoolcraft College, USA) considered how both al-Mu’taman ibn Hūd (died 1085 CE) and Thomas Harriot had elaborated upon work by Ibn al-Haytham in their discussions of spherical optics.

The next colloquium is already being planned for Tunisia in 2018.

*Gregg De Young*

## Jim Kiernan (1949–2014)

James Kiernan, a cherished and respected colleague, passed away in New York City on December 14, 2014, on his 65th birthday, after a long illness. He is survived by his wife, Marcia, and numerous relatives, friends, and former students.

Jim graduated from Nazareth Regional High School in Brooklyn and Hunter College. He was a high school teacher for most of his career (1982–2006), at Edward R. Murrow High School in Brooklyn, but he also



Figure 6: Jim Kiernan in 2014

taught the history of mathematics at Brooklyn College from 1989 until his death. Jim was active in writing and reviewing in the area of the history of mathematics and had a special interest in the early history of probability theory. From 1998 to 2001, he participated in the construction and testing of teaching modules that resulted from the Institute on the History of Mathematics and Its Use in Teaching. He was a member of the MAA since 1999 and served on the editorial board for MAA’s *Convergence* for the first 6+ years of its existence.

He was a frequent attendee at conferences and colloquia including CSHPM, ARITHMOS, international HPM meetings (for over 20 years), the Americas Section of HPM, JMM and MathFest. He reported on the 6th and 7th HPM European Summer Universities for this *Bulletin* (November 2010 and 2014). Jim was also a beloved teacher and performer of 1960s rock and roll music; the chief band in which he played was the Windsor Terrors. In recent years, Jim and Marcia split their time between Brooklyn and Miami Beach, FL, where unsurprisingly Jim was part of a group studying the Great Books.

Herb Kasube recalls their collaboration: “The best memory I have is that working with Jim was so much fun. He had such a wonderful sense of humor. He was serious about the work and contributed much, but he never lost his smile.” This writer remembers his attendance at the Pohle Colloquium where he was a gentle and scholarly presence.

*Walter Meyer*

## New Members

*Congratulations to the following new members who have joined the Society since our last Bulletin. We look forward to your contributions.*

Marion W. Alexander  
Houston, TX  
USA

Rachel Boddy  
Davis, CA  
USA

Mariya Boyko  
Toronto, ON  
Canada

Maritza Branker  
St. Catharines, ON  
Canada

Juan Caravajalino  
Montreal, QC  
Canada

André Curtis-Trudel  
Calgary, AB  
Canada

Kalyani Desikan  
Chennai  
India

Henryk Fuks  
St. Catharines, ON  
Canada

Tepppei Hayashi  
Calgary, AB  
Canada

Fabio Lampert  
Sacramento, CA  
USA

Jenny Matthias  
Cambridge, MA  
USA

Bruce McNeill  
Christchurch  
New Zealand

Ivy Merriot  
Three Forks, MT  
USA

Andrew Schroter  
Toronto, ON

Canada

Edward Shear  
Davis, CA  
USA

Jeremy Shipley  
Crystal Lake, IL  
USA

## From the Editor

As is usual for November, this issue is packed with Society news and business. We also have reports on the meetings of several related associations and on one of our sister publications, another of Mike Molinsky's terrific "Quotations in Context," information about efforts to preserve Ivor Grattan-Guinness's many contributions to our discipline, and a lovely tribute to Jim Kiernan. I still sometimes expect to see a cheery post about Jim's wide-ranging interests when I log into my Facebook account.

When Glen Van Brummelen, Maria Zack, and I started researching alternatives to producing the *Proceedings* in-house in mid-2013, we put all options on the table, including repurposing the *Bulletin* in some way, such as combining it with the *Proceedings* as the BSHM *Bulletin*. As you probably know, for various reasons the Society decided that publishing our *Proceedings* in lightly-edited format as single volumes through Birkhauser was the best fit for us, at least for the time being. And, Mike Molinsky does a stellar job of putting urgent news and Society announcements on our website. However, it is still worth asking whether a semi-annual PDF newsletter is the best way of serving the *Bulletin*'s function for our members in 2016.

For example, many of the announcements I come across—jobs and fellowships, awards competitions, conferences, and the like—go out of date before our next issue. For recurring events, I save the information for a future year, while hoping that students and such see the announcement somewhere else. It would be nice to be able to compile and distribute news more frequently, although it would mean processing the data I collect more often. On the other hand, a weekly or monthly distribution email or blog might inevitably become reduced to headlines, losing the interesting mix of columns and articles that we currently enjoy. And, it might disappear into the noise of all of the other email lists out there—I am sure I am not the

only one who receives two copies of all of SIU professor Jerry Becker's messages!

Meanwhile, there are certainly new and forthcoming technologies that this cell-phone-loathing editor doesn't understand at all. So, I am asking all of you to send me feedback at [aackerbe@verizon.net](mailto:aackerbe@verizon.net): 1) Does the *Bulletin* serve your needs in its current form? Does it serve the needs of new and potential members? 2) If the answer to either question is "no," then where is it lacking: format, frequency, content, something else? 3) How does the *Bulletin* compare to the news distribution efforts of other societies? To their work with respect to knowledge-sharing?

This is an area of ongoing reflection and conversation. In the meantime, the next submission deadline for the *Bulletin* is 1 April 2017. As always, the editors seek news items of interest to historians and philosophers of mathematics, reports on conferences attended, and personal and professional announcements. We also welcome suggestions for memorials, book and web reviews, and informative or thought-provoking column-style articles. Microsoft Word (please turn off its auto-formatting features such as "curly quotes") and LaTeX data files (not compiled PDFs) are easiest for the editors to deal with.

*Amy Ackerberg-Hastings*

## About the Bulletin

The *Bulletin* is published each May and November by a team of 3 volunteers: Content Editor Amy Ackerberg-Hastings ([aackerbe@verizon.net](mailto:aackerbe@verizon.net)), Layout Editor Eisso Atzema ([atzema@math.umaine.edu](mailto:atzema@math.umaine.edu)), and Production Editor Maria Zack ([Maria-Zack@pointloma.edu](mailto:Maria-Zack@pointloma.edu)). Material without a byline or other attribution has been written by the editors. Les pages sont chaleureusement ouvertes aux textes soumis en français. Comments and suggestions are welcome and can be directed to any of the editors; submissions should be sent to Amy Ackerberg-Hastings at the above email address, or by postal mail to 5908 Halsey Road, Rockville, MD 20851, USA.



**POINT LOMA**

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