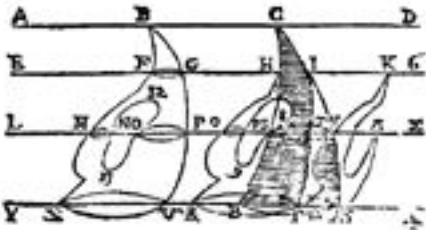


# BULLETIN

## 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 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:

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### Volunteer Positions

The Society's Web Page ([www.cshpm.org](http://www.cshpm.org)) is maintained by **Eisso Atzema**, University of Maine, Orono, ME 04469, USA, [eisso.atzema@maine.edu](mailto:eisso.atzema@maine.edu); he also manages the Society's Archives. CSHPM *Annals* volumes are edited by **Maria Zack** (see above) and **David Waszek**, Montréal, QC, H2H 2C9, CAN, [david.waszek@posteo.net](mailto:david.waszek@posteo.net). The *Bulletin* is prepared by Content Editor **Amy Ackerberg-Hastings**, Rockville, MD 20851, USA, [aackerbe@verizon.net](mailto:aackerbe@verizon.net), Layout Editor **Eisso Atzema** (see above), and Production Editor **Maria Zack** (see above). **Amy Ackerberg-Hastings** (see above) and **Nic Fillion** (see above) edit the CSHPM Notes column for *Notes* of the Canadian Mathematical Society.

**Nic Fillion** is also serving as CMS Liaison.

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

## President's Message

Five years ago, the CSHPM did not hold an annual meeting. This was the only year we did not meet since our first meeting in Toronto in 1974. Of course, the cause was the Covid pandemic. The 2020 meeting, which was to be held at St Andrews in conjunction with the BSHM (British Society for the History of Mathematics), was rescheduled to 2021 and held online, along with a local contingent at St Andrews attending in person. Our 2022 meeting, like so many of our annual meetings, was held in conjunction with the Congress of the CFHSS (Canadian Federation of the Humanities and Social Sciences), formerly called "The Learned's." The 2022 meeting of the Learned's was held entirely online.

The pandemic has done much to change the academic culture of in-person meetings. We learned that by using Zoom and similar tools, we could replicate many aspects of a traditional meeting, while saving money on travel, hotels, registration fees, and meals. This is not to say that in-person meetings are dead, but they seem to be in the process of becoming somewhat rarer. I think future historians will say that cloud-based video conferencing and online collaboration platforms were one of the most influential technologies of the 2020s, along with AI. Both are transforming our academic culture.

And so it was that in early May of this year the CHFSS announced that their advance plans for the 2026 Congress had fallen through. A few months later, we have learned that Congress 2026 will be replaced by a conference called "Big Thinking Summit 2026: Inflection Point," which will be held on June 9–11, 2026. It will not be a Congress of many small societies meeting separately and also cross-pollinating, but rather a meeting of one group, the CHFSS, meeting in something like a committee of the whole. Furthermore, it will be held at the Edmonton Convention Center, not at an academic institution. I'm just speculating, but between the failure of the original plan for 2026 and the non-academic location of this meeting, it's possible that the days of Congresses being held at universities may someday draw to a close.



The good news is that the CSHPM will be meeting in Halifax, NS, on June 4–6, 2026, in conjunction with the CPA (Canadian Philosophical Association), the CSHPS (Canadian Society for the History and Philosophy of Science), and the CSSPE (Canadian Society for the Study of Practical Ethics). The meeting will be held at Dalhousie University, sponsored by their department of philosophy. Members may recall that we had a very successful annual meeting at UQAM in 2018 in conjunction with the CPA. We are exceptionally grateful to Paul Bartha, president of the CPA, for the effort he has expended making this meeting possible and for his willingness to work with other societies.

The Special Session for 2026 is Ancient Mathematics. I'm delighted to announce that Jackie Feke of the University of Waterloo will be giving the Kenneth O. May lecture. I look forward to seeing many of you in Halifax next June.

*Rob Bradley*

## 2025 AGM Group Photo

For the second year in a row, CSHPM was able to gather most of the participants in the AGM for a group photo, which accompanies this article. Left to right: Irina Lyubchenko, Madeleine Muntersbjorn, Amy Ackerberg-Hastings, Henryk Fuks, Josh Lalonde, Raymond Grinnell, Jean-Pierre Marquis, Craig Fraser, Patricia Blanchette, Dan Curtin, Robert Thomas, Larry D'Antonio, Doug Marshall, Rob Bradley, Koray Akçagüner, Pat Allaire, Francisco Martínez-Aviña, Albert Lewis, Gavin Hitchcock, Daniel Mansfield, Roger Petry, Zoe Ashton, Tom Drucker, Dirk Schlimm, Chris Baltus.

## 2026 AGM

As you will see in this year's Council and AGM minutes, the Federation is not holding a full Congress in 2026 while it reevaluates and reinvents the Congress model for 21st-century academic landscapes. Our colleagues in the Canadian Philosophical Association immediately stepped up to make arrangements for an independent meeting and invited several related societies to join them at Dalhousie University in Halifax, Nova Scotia. Participating associations and meeting dates are:

- Canadian Society for History and Philosophy of Mathematics (CSHPM), June 4–6
- Canadian Society for the History and Philosophy of Science (CSHPS), June 4–6
- Canadian Philosophical Association (CPA), June 6–9
- Canadian Society for the Study of Practical Ethics, June 7–9

See CSHPM's call for papers elsewhere in this issue. If you have an idea for a joint session with one of these societies, please reach out to Maria Zack, [mzack@pointloma.edu](mailto:mzack@pointloma.edu), who is organizing CSHPM's general sessions, and/or to Nic Fillion, [nfillion@sfu.ca](mailto:nfillion@sfu.ca), who is organizing CPA's sessions. Registration and housing information will be distributed via CPA when it is available.

## Books Available

Two hardcover books in excellent condition are looking for a new owner: *A History of Mathematics in The United States and Canada, Volume 1: 1492–1900* by David Zitarelli (MAA Press, 2019), and *The Emergence of the American Mathematical Research Community, 1876–1900: J.J. Sylvester, Felix Klein, and E.H. Moore* by Karen Hunger Parshall and David E. Rowe (AMS and LMS, 1994). Interested readers can contact Antonella Cupillari at [axc5@psu.edu](mailto:axc5@psu.edu). Price US\$50 each, free shipping. First come, first served.

## Book Review: Augustus De Morgan, Polymath

*Augustus De Morgan, Polymath*, edited by Karen Attar, Adrian Rice, and Christopher Stray. Cambridge: Open Books, 2024, xxxvi+348 pp. Available via open access: [doi.org/10.11647/OBP.0408](https://doi.org/10.11647/OBP.0408).

Augustus De Morgan was a person with wide-ranging knowledge, a whimsical sense of humor, and skills in several different fields—a proficient mathematical and astronomical enthusiast. This book unites many of his activities into a single volume. The editors have done a superb job putting together this anthology. An introductory chapter authored by the editors describes how the book originated, aptly summarizes its contents, and sets the stage for the case that De Morgan was a person of wide-ranging knowledge.

The book is divided into three sections. The first deals with his scientific work and consists of five chap-





Figure 1: Most of the participants in the 2025 Annual General Meeting at George Brown College.



ters that explore his activities in mathematics, logic, and astronomy; his contributions to almanacs, periodicals and encyclopedias; and his dealings with scientific methodology. The second section describes his work beyond science and includes his work in mathematical education, his *Budget of Paradoxes*, the Bloomsbury district of London where he lived and worked, and his family life. The third section describes his library, identifies relevant archives, and includes a bibliography of his works.

Adrian Rice describes De Morgan's work as a mathematician, explores the range of his activity as a mathematician, and offers a reassessment of his reputation. We learn of his distrust of competitive exams from his experience with the Cambridge Mathematical Tripos, where he was fourth wrangler on the 1827 exam. In 1828, De Morgan was the founding professor of mathematics at University College London, but he resigned three years later only to return (for 30 years) when his replacement died. De Morgan was an influential mathematics teacher and inspired great affection and loyalty from his students, a group that included James Joseph Sylvester, Edward Routh, Francis Guthrie, William S. Jevons, Isaac Todhunter, and Ada Lovelace, who he tutored. Even though he proved no major theorems, made no major mathematical discoveries, or authored any major mathematical works, he was a great supporter of mathematics and a prominent expository writer on the subject. He promoted European mathematics, was a proponent of actuarial mathematics, and was a forefather of modern abstract algebra. His work in algebra in the 1840s was a catalyst for Hamilton's discovery of quaternions.

Anne-Sophie Heinemann describes De Morgan's contributions to logic. She illustrates his numerically definite system and points out how his research in logic led to the birth of modern symbolic logic. Daniel Belteki writes about De Morgan's contributions to astronomy and notes how mathematics led to De Morgan's interest in astronomy. He was acquainted with the leading astronomers of his day and served as the secretary of the Royal Astronomical Society. He wrote articles on the history of astronomy, astronomers, astronomical concepts, and recent developments in astronomy.

Olivier Bruneau gives a more holistic view of De Morgan's many contributions to periodicals and encyclo-

pedias. Between 1830 and 1870, De Morgan had more than 2,200 items published, with almost half of them book reviews. Many of his contributions appeared in *Notes and Queries*, the *Penny Cyclopaedia*, and *The Athenaeum*. He was Victorian Britain's most gifted scientific expositor.

Lukas M. Verburgt discusses De Morgan's interest in scientific methodology. De Morgan was an anti-Baconist advocate. He felt that the Baconist, who believed that scientific knowledge was acquired through inductive reasoning, focused too much attention on observations and not enough on logic and mathematics as instruments in scientific discovery. He also felt that probability should be used more often as a criterion in choosing between scientific hypotheses.

The second section deals with De Morgan's non-scientific activities. Christopher Stray writes about De Morgan and education, highlighting his lifelong interest in undergraduate mathematics education. Adrian Rice examines De Morgan's *Budget of Paradoxes*, a book that details the published output of math cranks, frauds, and pseudoscientists, and includes many digressions by De Morgan. Rice reminds readers that the Victorian sense of the word paradox was 'not belonging to the mainstream'. Published posthumously, it was De Morgan's most frequently quoted work. Although the book has not aged well, it illustrates his wit and engaging style.

Rosemary Ashton describes the Bloomsbury section of London, where De Morgan lived and taught. The area, populated mainly by middle-class professionals, was the home of University College London (UCL). The school offered nonsectarian higher education (beyond the basic subjects of classics, mathematics, and theology) to children of the middle and manufacturing class.

Joan L. Richards offers a comprehensive account of De Morgan's family. We learn that he and Sophia had seven children, four of whom died of phthisis (TB). Sophia's bout with spiritualism, after their first child's death, is discussed. Their son George was instrumental in the founding of the London Mathematical Society, which Augustus served as its first president.

The bibliographic section begins with a chapter by Karen Attar that offers an extensive account of De Morgan's outstanding library, which consisted of over 4000 titles. She describes how it fared and why it



continues to stand out. We learn that his writing was closely related to the contents of his library. After De Morgan's death, the bulk of his collection went to UCL where, even though a WWII bomb caused some damage, the library is still functional.

In the penultimate chapter, Karen Attar, Alexander Lock, Katy Makin, Jane Maxwell, Virginia Mills, and Diana Smith examine De Morgan's archival record. They detail what correspondence and manuscripts exist and where they can be found. In the final chapter, William Hale provides an extensive bibliography of De Morgan's works.

The idea, execution, and articles in the volume are brilliant. Readers will come away with a good idea of who De Morgan was and what he accomplished. The historian Dirk Struik said that if he could go back in time, the one mathematician he would like to meet would be the geometer, Girard Desargues. After reading this book, Augustus De Morgan is at the top of my list.

*Jim Tattersall*

## CSHPM/SCHPM Executive Council Meeting

The meeting of the CSHPM/SCHPM Executive Council was held virtually via Zoom on May 9, 2025. The following members were present: Amy Ackerberg-Hastings, Patricia Allaire, Marion (Wendy) Alexander, Eisso Atzema, Robert Bradley, Nicolas Fillion, Craig Fraser, Cynthia Huffman, Jemma Lorenat, and Maria Zack. Rob Bradley, President, called the meeting to order at 2:05 pm EDT. (The accompanying photo shows Nic, Rob, Francisco Martínez-Aviña, and Zoe Ashton performing a drama by Gavin Hitchcock at the 2025 AGM.)

The agenda for the meeting was approved, and minutes from the 2024 Executive Council Meeting were accepted as printed in the November 2024 *Bulletin*.

**Treasurer's Report:** Craig Fraser reminded the Council that the 2024 financial report appeared in the May 2025 *Bulletin*. He noted that revenue is primarily from membership fees in \$CAD and expenses are primarily in \$USD, so he periodically transfers funds between accounts. CSHPM was a few years behind in settling up with *SCIAMVS*, but Craig has taken care of that. BSHM requires payment via a wire transfer, which is expensive, so Craig planned to discuss



Figure 2: “George Peacock: Reluctant Revolutionary.”

alternatives with their new Treasurer. Since CSHPM has a healthy surplus of funds, Craig recommended looking into increasing student bursaries.

**Secretary's Report:** Pat presented comparative membership data for 2024 and 2025 (please note that the 2024 data was updated from last year's report to include members who joined after the 2024 Executive Council Meeting):

	2024	2025
<b>Total Members</b>	154	116
<b>Members By Address or Organization</b>		
Can	41	26
US	84	65
Other	28	24
BSHM	24	21
CSHPS	10	3
<b>Members By Status</b>		
Active	66	51
Retiree	37	32
Student	12	5
Developing Nations	3	3
Unemployed	3	1
Student Associate	0	0
Unknown	31	24
<b>Members by Pay Method</b>		
Online	114	87
Snail Mail	5	6
Recipr. Members	34	33
Complimentary	1	0
<b>New Members</b>	18	9



Reciprocal Memberships		
To BSHM	35	31
To CSHPS	16	3
Journal Subscriptions		
<i>Historia</i> (paper)	27	21
<i>Historia</i> (electr.)	3	3
<i>Philosophia</i>	9	3
<i>SCIAMVS</i>	3	4
Proceedings/Annals		
Federation	1	1
Hardcover	16	13
Electronic	7	6
Bulletin		
Paper	16	9
Donations		
No. Donors	17	14
Amount	CAD1101.00, USD7.50	CAD833.00, USD3.00

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 BSHM and CSHPS is not known. She further noted that our membership numbers are down and have skewed further toward members from the US. Similarly, the number of new members is down. Some people join only for the year in which they will be presenting, and the online colloquia had also been yielding a few new members.

**Bulletin Editors’ Report:** Amy Ackerberg-Hastings presented the following written report: Our semi-annual newsletter seems to be in good condition. Thanks to Layout Editor Eisso Atzema, Production Editor Maria Zack, and Secretary Pat Allaire for setting up and disseminating the *Bulletin* in a timely fashion. CSHPM continues to provide electronic distribution to all members and postal mail distribution to those members who request it when they renew their memberships. Members are encouraged to submit meeting reports and other short articles related to their research and teaching interests in the history and philosophy of mathematics; a few long-time members consistently suggest and contribute content. A handful of volunteered book reviews are in process although I am not actively seeking out new publications to have reviewed. I also move items around among the three publications I edit as appropriate; for example, the article on the Newton Project in the May 2025 issue originally came to my attention through

*MAA Convergence*.

Those authors commented, “The issue is full of interesting stuff!” when I sent them a copy. That was nice to hear, but nonetheless I am concerned that the proportion of content I am creating myself appears to be steadily increasing. It took several hours per day over 4 days to finalize the May 2025 issue, but most of that time was spent writing content rather than editing submissions. (Chasing down reports required less effort than usual, for which I thank the Council.) Thus, members can best support the *Bulletin* by sending in materials. The next deadline for *Bulletin* submissions is 1 October 2025; please send contributions to [aackerbe@verizon.net](mailto:aackerbe@verizon.net). I have not currently been soliciting a successor as Content Editor, but I am open to training someone to take over. I will once again share a slide outlining the job description during the AGM.

Pat asked whether there are submissions to CSHPM Notes that are more suitable for the *Bulletin*. Amy replied that virtually all authors specify the outlet correctly. She does, however, redirect submissions to *MAA Convergence* or the *Bulletin* if appropriate (with the author’s permission).

**CSHPM Notes Editors’ Report:** Amy then shared a written report for the column in *CMS Notes*: Nic Fillion came on as co-editor shortly after last year’s AGM, and we’ve come up with a GoogleDrive-based workflow that appears to function well for both of us and for our authors. Nic’s presence helped us have a nice run of columns from women graduate students in philosophy in the second half of 2024. We’ve also endeared ourselves to the CMS staff by continuing to submit columns well in advance of their deadlines; members may have noticed that issues are consistently running late, in part because other editors are not as prompt. We did not get to Glen Van Brummelen’s suggestion about turning a selection of columns into a collected volume again this year, and it’s likely I will not have the bandwidth to do so until my term as co-editor of *MAA Convergence* ends in December 2028.

Through the June 2025 issue, 66 columns have appeared from the word processors of 48 authors, 17 of whom are women. Nine installments have had co-authors, and 11 were written by students. Roughly 14 columns have been philosophical in nature, and the content of about 52 pieces has been mainly his-



torical; thus, about 21% of the output has addressed philosophical topics. Two authors have written five columns; another two have composed four installments; three have written three pieces; and seven members have authored two columns as single and/or joint authors. I have assembled two posthumous columns. Craig Fraser has been an especially strong supporter of the column, both by writing Notes himself and by suggesting or recruiting students and young scholars. At present, we're working with a few authors to try to get them across the finish line, and we also have a completed column in reserve for when we're in danger of missing a deadline. But, we are always happy to hear from members who are interested in submitting to CSHPM Notes. The guidelines appear in each of our announcements and are posted on the CSHPM website.

**Annals Editors' Report:** On behalf of co-editor David Waszek, Maria Zack reported that the 2023 *Annals* have been sent out. We have a new system for how we interact with the typesetters and what they are allowed to change, and that seems to have reduced the problems experienced with the past couple of volumes.

We are in the process of reading through the final versions of the papers for the 2024 *Annals*. In this process we fix all issues that we can find directly in the LaTeX, which reduces the problems in production. We expect to have that task completed by the end of May and will send the book into production with Birkhäuser.

We expect the 2025 *Annals* to have a submission deadline of October 1, 2025. The call will be circulated after the meeting. As in the last few years, members will be able to submit a paper even if they did not present it at the meeting.

Maria is also starting the process of reading through past copies of the *Proceedings* to identify papers that were not published elsewhere and that might be strong candidates for inclusion in the *Annals* over the next few years. We have decades of *Proceedings* that were only published privately by CSHPM.

Rob asked if we might consider asking people to self-recommend. Maria replied that to do so is probably unnecessary, as there are a limited number of papers to be considered.

**Webmaster's Report:** Eisso Atzema said he had nothing much to report with regard to the maintenance of the website.

The site seems to be running smoothly and content updates do not take much time and effort. A few minor issues occurred and were quickly solved. At this point he does not have plans for any major work on our server. At some point we probably should consider the transition to a content management system (likely WordPress).

Eisso noted that the website was built from bare bones by Rob Bradley, Mike Molinsky, and himself using Linux, which requires considerable savvy to maintain. This could present problems for recruiting a future Webmaster.

**Archivist's Report:** Eisso then reported that this year he received one request for an article published in one of the less accessible *Proceedings*. He has continued to update the archives' inventory to include the most recent *CMS Notes*. Probably a bit more work is needed. Other than that, he stated that most of the issues that he mentioned in last year's report have not been resolved yet.

**Phil Math Preprint Archive:** A report from Elaine Landry was received after the meeting and is printed elsewhere in this *Bulletin*.

**Online Colloquium Report:** Nic Fillion reported that there were no talks this year; he is running the Ethics Bowl, which has required a large commitment of his time. In 2024 Greg Lavers agreed to take over as philosophy co-organizer of the colloquium, but a recurrence of Greg's illness prevented him from doing so. (Just after this meeting, we received the sad news of Greg's death.) Nic said he would seek volunteers as speakers and organizers at the 2025 AGM. Jemma Lorenat added that she had tried unsuccessfully to coordinate speakers with HOM SIGMAA's online talks, but she would make another attempt.

**Future Meetings:** Shortly before the meeting, the Federation notified us that negotiations with the potential host for Congress 2026 had failed. Therefore, Congress 2026 will be virtual. The discussion that followed this announcement dealt with two areas—a possible future joint meeting with BSHM and our plans for a 2026 meeting.

**BSHM:** Rob and Pat had exchanged correspondence with BSHM about a possible joint meeting in 2026. Meeting in Boston with MathFest had been considered. However, because of the current political situation, it appears that participants would be reluctant to come to the US. Even if Congress 2026 were not go-





Figure 3: Patricia Blanchette

ing to be virtual, the timing of Congress conflicts with the British academic calendar. It was decided that it is necessary to discontinue discussion of a joint meeting in 2026 and revisit the idea for 2027. MathFest will be at New Orleans (probably an interesting location to BSHM members) and perhaps the political scene in the US will be different.

*2026:* There was some unease about participating in a virtual Congress. Nic suggested that we might consider a stand-alone meeting with CPA and CSHPS. He will contact both organizations to see if either or both is interested. He hopes to have concrete information to present at the AGM.

**Other Business:** Amy suggested that we formulate an organized method of allocating the two complimentary registrations for Congress that we receive from the Federation. We allocate one to the May Speaker, but the other has been done on an *ad hoc* basis, and recent recipients have frequently ended up not attending the meeting. It was agreed that the Council members will consider this issue and perhaps discuss it online before the AGM.

The meeting was adjourned at 3:35 pm EDT.

*Patricia Allaire, Secretary*

## Book Review: From Here to Infinity

*From Here to Infinity: Tracing the Origin and Development of Projective Geometry*, by Andrea Del Centina and Alessandro Gimigliano. Cham, Switzerland: Springer, 2025, xlii+788 pp. \$USD249.99.

I write to spread the word that there is, at last, in 2025, a history of projective geometry. The book is *From Here to Infinity* (FHTI), from Springer. In the foreword, Jeremy Gray wrote, “Projective geometry has waited a long time for its historians and in Andrea Del Centina and Alessandro Gimigliano it has found them.”

FHTI is a very good book. It should be in every university library, or, as things seem to be going, available online to patrons. It is 788 pages long. The mathematical exposition is excellent; the history is authoritative. Chapter by chapter, the history is set out and the mathematics is clearly explained—most key propositions come with original proofs, clarified as needed, with numerous line figures. A reader with some background and persistence can follow the mathematical arguments. A thorough survey of the secondary literature through 2022 is provided.

There is the underlying question of which projective geometry is to be the subject of the book. Is it the geometry of the first half of the nineteenth century, centered in the work of Jean-Victor Poncelet, Jakob Steiner, and K. G. C. von Staudt? Should it include the axiom-based work that emerged in the decades around 1900, or is it all the geometry in which we recognize projective methods? The authors of FHTI take an expansive view of the subject, including even Euclid’s *Optics*, Renaissance perspective methods, and also work from the first half of the twentieth century. Many of the propositions of Pappus’s *Mathematical Collection* are examined, even though none were proved by projective methods, presumably because they involve properties invariant under projection.

The format is to concentrate on authors one by one, in historical order. The list of authors is standard, but the choice of the works on which to concentrate can be surprising. For example, there are 32 pages on Pascal’s “Mystic Hexagram” and the related lost treatise on geometry, with Leibniz’s notes, and 18 pages about Isaac Newton’s treatment of conics in his *Principia*.

As for what to emphasize in the work of each math-



ematician, the authors of FHTI emphasize what the individual mathematician chose to emphasize. The concluding section of each chapter is an enlightening look at the bigger chain of influences.

The case of Girard Desargues is illustrative. It requires a judgment call by the historian, for Desargues' major mathematical work, the *Brouillon project* of 1639, was lost until a handwritten transcription by Philippe de la Hire was found in 1845. (A printed copy was found at the Bibliothèque Nationale in 1950.) Desargues' influence on Poncelet, Steiner, and von Staudt was, therefore, limited to a few key concepts that survived independent of the *Brouillon project* itself, particularly the idea of parallel lines meeting at a point at infinity and the concept of involution. Most English-speaking nonspecialists know of Desargues' geometry from Field and Gray's 1987 *The Geometrical Work of Girard Desargues*. FHTI seems to only use the Field and Gray work for the English forms of technical terms. The thorough explication of Desargues' *Brouillon project* in FHTI is followed by some 20 pages tracing the influences to key concepts for Desargues, with a lengthy discussion of the likely inspirations of the notion of involution. Reference is made to several articles of Anglade and Brien from *Arch. Hist. of Ex. Sci.* in the years 2017, 2019, and 2022; a Del Centina article of 2022 in the same journal; and some new material which could, it appears, serve for another such article. It is all readable for mathematics historians, with effort, and takes us well beyond where Field and Gray left things. Further, the historical setting of Desargues' work, with his connections with Mersenne's circle, especially C. Mydorge, is presented in more detail than I have found elsewhere.

The conclusion to the chapter on Desargues includes the following:

We believe that the concepts of transversal and of involution were suggested to Desargues by his practice of perspective, and that his great insight allowed him to read Apollonius and Pappus's classical results from a new point of view, forgetting the artificial subdivision in species of conic sections. It seems that the Brouillon project was Desargues's answer to both the old-fashioned treatment of conics in Mydorge's *Prodromi*, and the novelty of the algebraic tools expounded in Descartes's

*Géométrie*.

The greatest part of FHTI is straightforward reporting, but there are several general claims about the history of projective geometry. For example,

A retrospective look convinced us that the fundamental ideas at the basis of projective geometry were rooted in both classical Greek geometry and the perspective of the Renaissance, the daughter of Euclid's Optics (p. xii).

A limitation of FHTI that I see may be due to the organization of the book around the choices of the individual mathematicians. By that approach, projective geometry, at least through the work of Poncelet, was primarily concerned with conic sections: individually or in pairs of conic sections, with inscribed or circumscribed polygons, tangents and secants, and pole-polar pairs. That emphasis is realistic, but a look back from the twentieth century would place relatively more emphasis on transformations of the projective plane, especially the projectivity. I checked the 1963 *An Introduction to Projective Geometry* by Dan Pedoe. Of its ten chapters, just one is about conic sections, while three are on transformations of the projective plane: perspectivities, collineations, and projectivities. The other chapters are an introduction, one on involution, another on the cross-ratio defined without a distance function, and the rest on foundational issues. (A *transformation* of the projective plane is a one-to-one and onto pairing of the points of that plane with itself.)

The most general transformation, the *projectivity*, was not treated in Poncelet's masterwork, of 1822, the *Traité des Propriétés Projectives des Figures*. Projectivity was first studied as a collineation of the real projective plane by A. F. Moebius in his *Barycentrische Calcul* of 1827. The points of his projective plane were represented by barycentric coordinates.

The transformation Poncelet studied, and named, was the *homology*. The simplest version of homology was a plane-to-plane projection from a point in space,  $S$ , as in the accompanying figure of a plane-to-plane projection, plane  $\pi$  to plane  $\pi'$  from center  $S$ . The intersection of the two planes, named the *axis* by Poncelet, is a line of points projected to themselves from point  $S$ . We see that a line, such as  $m$  in the figure, is projected to a line,  $m'$  of the other plane that it meets on the axis. Then one of the planes



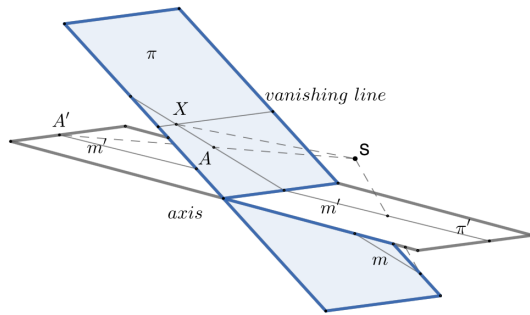


Figure 4: Plane-to-Plane Projection

is rotated about the axis until the two planes coincide, giving a transformation of the plane. Homology had been developed by Philippe de la Hire, in an addendum called *Planiconiques*, to his 1673 *Nouvelle Méthode en Géométrie*. The plan of both La Hire and Poncelet, where La Hire had been anticipated by Francesco Maurolico, Desargues, and Pascal, and Poncelet had been anticipated by Lazare Carnot, was to first prove for a circle properties which are invariant under a plane-to-plane projection. Thus these properties hold for conic sections. The term *homology* is still used nearly as Poncelet did to denote a projectivity that has a line of fixed points and a center. Michel Chasles, in his *Aperçu Historique* of 1837, said the 1673 work and the *Planiconiques* were “tombé en oubli,” which is why Poncelet was unaware of it. A reader of FHTI might miss that limitation in Poncelet’s work to homology, and is not told that La Hire’s *Planiconiques* transformation is a homology.

It was Jakob Steiner, in 1832, who defined a *projectivity*, contrasted to a *perspectivity*. A pencil in the plane, called an *ebene Strahlenbüschel* by Steiner, is the set of all lines in a plane on a particular point. A *perspectivity* of two pencils, with center points  $A$  and  $B$ , involves some line  $m$  not on  $A$  or  $B$  where for each point  $X$  of  $m$ , line  $XA$  of one pencil is paired with line  $XB$  of the other pencil. The dual perspectivity pairs the points of two lines, and there is the pairing of the lines of a pencil with the points of a line which does not lie on the center of the pencil. One definition of a *projectivity*, as by Luigi Cremona in 1873, Veblen and Young in 1910, H.S.M. Coxeter in 1961, and Pedoe in 1963, is the composition of a finite number of perspectivities.

In our other figure, which reproduces Steiner’s Figures 1 and 2 from *Systematische Entwicklung* (1832, 1881), the pencil on point  $B$  is first paired in a per-

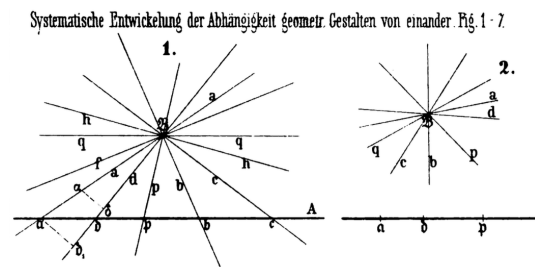


Figure 5: Steiner’s Figures 1 & 2

spectivity with the points of line  $A$ , in Steiner’s *Fig. 1*, but then the pencil is flipped in Steiner’s *Fig. 2*. Steiner tells us that the flip gives a *projective* pairing since the lines of the pencil keep the same relation to each other, but is in *oblique position* since it is not a perspectivity. Steiner then sought the law that characterizes a projectivity. He answers by developing the cross-ratio of four collinear points or four concurrent lines, *Doppelverhältnis*, and its properties, including invariance under projection, and declares that lines are *projectively related* when any four points of one line correspond to four points of the other line with the same cross-ratio. (He noted that the invariance was first made known by Brianchon, in 1817, although it can be read into Pappus’s Book 7 Prop. 129.)

I end with a final note on FHTI, directed primarily to the publisher, Springer. FHTI is full of typos, at least some introduced in the printing process. On one page it seems that some AI-type processor decided all references to segment  $LN$  really should be the logarithm,  $\ln$ . FHTI is destined to be a classic. Why not give the authors some help in catching typos and cleaning up the occasional awkward English?

Christopher Baltus

## Book Review: Real Functions of One Variable

*Geschichte der reellen Funktionen einer Veränderlichen: ein quellenorientierter Abriss der Entwicklung vom Beginn des 17. bis zur Mitte des 20. Jahrhunderts* (History of Real Functions of One Variable: A Source-oriented Outline of Developments from the Beginning of the 17th to the Middle of the 20th Century), by Rüdiger Thiele. Münster: WTM – Verlag für wissenschaftliche Texte und Medien, 2022, 530 pp. €74,90.



Rüdiger Thiele has written books on Leonhard Euler and the history of the calculus of variations. He was the invited speaker at the 1997 meeting of the CSHPM in St. John's, where he spoke on Euler, and the 2000 meeting in Hamilton, where he presented the paper "Early Calculus of Variations and the Concept of Function." Both lectures appeared in Glen Van Brummelen and Michael Kinyon, eds., *Mathematics and the Historian's Craft: The Kenneth O. May Lectures* (Springer, 2005), pp. 81–140, 243–295. Thiele also participated in the joint meeting of the CSHPM and BSHM in 1999 in Toronto.

The 530-page book under review is a history of real analysis from the seventeenth century to the early twentieth century. The frontispiece (Figure 1) is a portrait of Carl Friedrich Gauss with the inscription (in translation)

One should never forget that functions, like all mathematical concepts, are only our own inventions, and that when the definition one started with ceases to make sense, one should not really ask "what is?" but rather assume what is convenient, so that one may remain consistent.

The function concept has been a *Leitmotif* in the development of mathematics since the eighteenth century. It is the essential thread in Thiele's book, connecting the work of Euler, Lagrange, Cauchy, Dirichlet, Weierstrass, Riemann, and others. The function becomes a symbol of the *Weltanschauung* of modern analysis.

The second and third chapters provide a detailed account of developments in seventeenth and early eighteenth-century mathematics. Subjects of interest include logarithms, analytic geometry, and the invention of calculus. The narrative really takes off with Euler in chapter three. Drawing on ideas in the writings of Johann and Jacob Bernoulli, Euler's achievement was to formally introduce the function concept and to organize various parts of analysis around it. His achievement comes into focus when one compares what he did in the 1740s and 1750s with contemporary writings on calculus. For example, Colin Maclaurin's 1742 *Treatise of Fluxions* was a major work of great foundational interest, but the function concept was absent in his development of the subject. Nor does it figure in Maria Gaetana Agnesi's celebrated books of 1748 on calculus.



Man sollte überhaupt nie vergessen, dass die Funktionen, wie alle mathematischen Begriffszusammensetzungen [Konstruktionen], nur unsere eigenen Geschöpfe sind, und dass, wo die Definition von der man ausging aufhört einen Sinn zu haben, man eigentlich nicht fragen soll was ist? sondern was *convenirt* [passend ist]? anzunehmen, damit ich immer consequent bleiben kann.

Carl Friedrich Gauß über Funktionen  
In einem Brief an Bessel vom 21. November 1811

Figure 6: Thiele's frontispiece.

Morris Kline has observed that in the nineteenth century, "Partial differential equations became and remain the heart of mathematics" (*Mathematical Thought from Ancient to Modern Times* (1972, p. 671)). A substantial section of Thiele's book is devoted to examining how the function concept was deployed in the investigations of these equations, with the development of Fourier analysis being a major area of concern. The investigation of trigonometric series and the representation of functions led to the identification of "pathological" functions. One example consisted of a function that was everywhere continuous but nowhere differentiable. Weierstrass in 1872 produced a famous example of such a function. Interesting work in this vein that is less well-known was carried out by his Swiss contemporary Charles Cellérier. Kline (ibid, p. 954) observes that the discovery of pathological functions "made mathematicians all the more fearful of trusting intuition or geometrical thinking."

In Euler's time there was no distinction between real and complex analysis. The emergence of complex analysis was a major event in the nineteenth century. Thiele's focus on real functions arises for pragmatic reasons and in acknowledgement of the fact that the





Figure 7: Rüdiger Thiele

consideration of complex analysis would require another book. On the relation of the two branches of analysis he (p. 13) defers to Gauss, who wrote in an 1811 letter to Friedrich Bessel:

First of all I would ask someone who wants to introduce a new function into analysis to explain whether he wants it to be applied strictly to real quantities (real values of the function's arguments), and considers the imaginary values of the arguments as a kind of superfluous element, or whether he subscribes to my principle that in the realm of quantities, the imaginary  $a + b\sqrt{-1} = a + bi$  must be viewed as enjoying equal rights with the real ones... Analysis is to me an independent science, which would lose a great deal of beauty and completeness by the elimination of those fictitious quantities, and would be forced at every moment to add extremely burdensome restrictions to truths that are otherwise generally valid.

Included in Thiele's book are several Russian mathematicians not as well-known as their European contemporaries. Although we tend to associate Nikolai Lobachevsky with geometry, he also contributed

to analysis, writing in Russian and providing a source and vocabulary for that subject in his country. (Lobachevsky is introduced with some lines from Mikhail Lermontov's poem *The Sail*: A lonely sail is flashing white/In the blue mist of the sea! .../What does it seek in foreign lands?/What did it leave behind at home? ...) Lobachevsky considered a more general concept of function involving an arbitrary relation among variables, a conception that was also found in Dirichlet. Of note here is historian F. A. Medvedev's 1991 book *Scenes from the History of Real Functions* (Birkhäuser). (Medvedev also makes central the concept of a function and its role in the development of real analysis.) Other Russian analysts encountered in Thiele's book are Mikhail Ostrogradsky, Pafnuty Chebyshev, Viktor Bunyakovsky, and Dimitri Egorov.

Thiele extends his account of functions to logicians and philosophers of mathematics, most notably Gottlob Frege, who in 1891 published the article "Function and concept." Frege's general view was to regard number as something that is defined by the context in which it appears, this context being given by propositions and language. Frege adopted this view to avoid psychological or formal conceptions of number, which he considered to be untenable. His investigations of the function notion involved both the philosophy of mathematics and the philosophy of language, and it is the latter that is sometimes seen as his most original contribution.

The book contains attractive reproductions of text and images, as well as a range of portraits of historical personages. Mathematical exercises at the end of each chapter connect the subject matter to problems of concrete interest. Each chapter ends with a valuable bibliography of relevant literature.

*Craig Fraser*

## AGM of CSHPM/SCHPM

The Annual General Meeting of the Canadian Society for History and Philosophy of Mathematics took place at George Brown College, Toronto, ON, on June 1, 2025. The meeting was called to order at 12:30 pm EDT by Robert Bradley, President, with 22 members present.

### AGM Agenda

1. Approval of agenda



2. Approval of minutes of 2024 AGM
3. Treasurer's report
4. Secretary's report
5. CSHPM Notes Editors' report
6. *Bulletin* Editors' report
7. *Annals* Editors' report
8. Webmaster's and Archivist's reports
9. PhilMath Preprint Archive report
10. Online colloquium report
11. Future meetings
12. Appointment of Nominating Committee
13. Adjournment

1. The agenda for the general meeting was approved.
2. Minutes from the 2024 AGM were accepted as printed in the November 2024 *Bulletin*.

3. Treasurer Craig Fraser discussed the transfers made between our USD and CAD accounts. He noted that we pay BSHM about 50% more for our members requesting reciprocal membership than they pay us.

Robert Thomas asked if we have enough funds to help pay for the cost of meetings. Craig replied that we do. Amy Ackerberg-Hastings noted that we receive some funding from the Federation. This year we received \$1000 for the May Lecture and Special Session plus \$1000 for awards paid directly to Canadian graduate students. We awarded \$750 toward the cost of the meeting for 4 graduate students and early-career scholars and \$250 to the 2 graduate students who each received \$500 from the Federation. There was a brief discussion of the possible costs for future meetings and the continuation of student bursaries.

4. See the minutes of the Executive Council for comparative membership data for 2024 and 2025. Secretary Pat Allaire noted that the number of members has decreased. Membership has returned to where it was before a large increase in the late 1990s that was mostly generated by the MAA's Institute for the History of Mathematics and Its Use in Teaching.

5. See the minutes of the Executive Council for the CSHPM Notes editors' written report. Tom Drucker expressed thanks to Amy and Nic Fillion on behalf of the membership.

6. See the minutes of the Executive Council for the *Bulletin* editors' written report. Amy also presented a job description for the Content Editor.

7. Pat presented the *Annals* editors' report on behalf of Maria Zack and David Waszek. See it in the



Figure 8: Alma McKown

minutes of the Executive Council.

8. See the minutes of the Executive Council for written reports from Webmaster and Archivist Eisso Atzema.

9. Elaine Landry sent word that an update on the PhilMath Preprint Archive would be forthcoming in July. See it printed elsewhere in this *Bulletin*.

10. Nic reported that there were no online colloquia this year, and he requested assistance in securing speakers for next year. Rob volunteered to help with securing speakers in history. The colloquium is worth continuing because it has been a good recruiting tool to bring in new members.

11. Rob read the letter from the Federation stating that negotiation with a university had failed. It is





Figure 9: David Bellhouse

expected that there will be no in-person Congress in 2026.

There was a discussion about other possibilities such as a joint meeting with BSHM, a stand-alone meeting by ourselves or with CSHPS and/or CPA, or joining a virtual Congress. Rob and Pat checked with BSHM, and they were not willing to meet in the United States, such as at MathFest 2026 in Boston, at this time. CMS has not announced a location for Summer 2026. Craig pointed out that CSHPS has sent a questionnaire to its membership to gauge interest in various meeting possibilities.

Tom Drucker made a motion to the effect that it is the sense of the membership not to meet virtually if that is the only option from the Federation. The motion was seconded by Dora Musielak and passed by attendees. Nic will consult with CPA about the possibility of a joint meeting.

Suggestions were made for a topic for our Special Session, including History of Trigonometry, Ancient Mathematics, and anniversaries such as Crelle's Journal (founded in 1826), Riemann (born in 1826), and Florian Cajori's *History of Mathematics* (1926). The Council will finalize a topic and invite a May Lecturer once they have confirmed a site and dates for the 2026 meeting.

12. The meeting was adjourned at 1:35 pm EDT.

*Patricia Allaire, Secretary*

## PhilMath Archive 2025 Report

The PhilMath-Archive section of PhilSci-Archive has been active for 7 years. It is dedicated to philosophy of mathematics and is curated by philosophers

of mathematics. Coordination and moderation of the section is carried out by Elaine Landry, who initially proposed creation of the section. Sponsors of the mathematics section are:

- International Association for the Philosophy of Mathematics (PMA)
- Canadian Society for the History and Philosophy of Mathematics (CSHPM)
- British Society for the History of Mathematics (BSHM)
- Association for the Philosophy of Mathematical Practice (APMP)
- Philosophy of Mathematics Special Interest Group Mathematical Association of America (POM SIG-MAA)

The use of the section is healthy. The growth of the philosophy of mathematics section is shown by its total size at the following checkpoints:

- May 2017 – 234
- May 2018 – 299 (archive increased by 65 entries from the previous year)
- May 2019 – 383 (increase by 84 entries)
- May 2020 – 449 (increase by 66 entries)
- May 2021 – 535 (increase by 86 entries)
- December 2021 – 608 (increase by 73 entries)
- May 2023 – 671 (increase by 68 entries)
- May 2024 – 719 (increase by 48 entries)
- May 2025 – 795 (increase by 76 entries)

Coordinating with the moderation in the PhilSci-Archive has continued smoothly. A danger is a fringe author posting to both Archives. Currently, coordination between the two Archives is done through email, with the two moderators 'manually' checking with one another when a possible fringe case arises. Although this is somewhat cumbersome, the number of cases is sufficiently low that implementing an automated system is currently unnecessary.

*Elaine Landry*

## COMHISMA15 in Córdoba

The meeting of the XV<sup>e</sup> Colloque Maghrébin sur l'histoire des mathématiques arabes / I<sup>er</sup> Coloquio Andalus-Magrebí de Historia de la Matemática Árabe met outside North Africa for the first time—in Córdoba, Spain, 23–25 April 2025. The colloquium met in two parallel sessions on 23 and 25 April in



Casa Árabe. A joint morning session was held on 24 April in the library of the museum at the archaeological site Medina Azahara, a few kilometers outside Córdoba. After a lunch in the museum restaurant, the group enjoyed a guided tour of the archaeological site.

The Colloquium program included more than 30 contributed papers, as well as two plenary lectures—the first by Ahmed Djebbar (“La tradition euclidienne entre Orient et Occident musulmans: Exemple de la géométrie du *Kitāb al-Iqtīṣār* d’Abū l-Ṣalt”) and the second by Mahdi Abdeljaouad (“Mise à jour sur les travaux concernant al-Qalaṣādī”). Contributed papers ranged over the entire traditional quadrivium, from algebra (D. Guillemette, “Dialogue avec l’algèbre d’al-Khwarizmi”) and arithmetic (P. Ageron, “Le *Kitāb fī al-ṣinā’a al-ḥissābiyya* ... sources et circulation”) to geometry (G. Schubring, “The transition from manuscripts to the printing press in the Islamic Civilization”) and mathematical cosmography (B. Van Dalen, “Calculation of the equations of Mercury in an appendix to Naṣīr al-Dīn al-Ṭūsī’s recension of Ptolemy’s *Almagest*”; N. Boulahia, “Determination of the Azimuth of the Qibla at Tunis...”; J. Bellver, “The reception of Jābir ibn Aflāḥ’s *Astronomy* in the East”) and music (M. Camprubí, “Al-ʿAbdārī’s *Questions on the fundamentals of music*”).

Most papers focused on sources originally written in Arabic, but a few looked at influence of Arabic work in Latin Europe (M. Moyen, “Le commentaire du *Liber mensurationem* au prisme de sa partie stéréométrique”; M. Shank, “The roles of Jābir ibn Aflāḥ and al-Bīṭrūjī in Regiomontanus’s Criticisms of Ptolemy”). The mathematical features of astronomical instruments also were discussed in several papers (R. Puig Aguilar, “Instrumento medieval para predecir la visibilidad del creciente lunar”; W. de Graaf, “Computation of time in equinoctial hours with the Zarqālī quadrant”; M. Martínez i Sellarés, “Taqi al-Din and Adrianus Metius on the Zarqālī plate”).

A few papers explored new paths or new approaches to history of Arabic mathematics. U. Rebstock presented preliminary findings concerning practical arithmetic handbooks written in Arabic in sub-Saharan Africa (mainly Nigeria) during the nineteenth century. S. Brentjes presented some features of her research on al-Ṣūfi’s constellation maps and

their images to illustrate how local variants can raise important historiographical issues while at the same time providing important historical details revealing textual history. G. De Young outlined a proposed project to use phylogenetic techniques to study the relationships among existing Arabic manuscripts using differences in their diagrams and gave a very brief introduction to how this analysis might be used to understand the relationships between the four extant “Andalusian” manuscripts of Euclid’s *Elements*. Ezzaim Laabid proposed to study mathematical/computational features in the often-ignored genre of Arabic legal handbooks devoted to Islamic inheritance regulations.

*Gregg De Young*

## HoM at ICHST

The 27th International Congress of the History of Science and Technology met at Otago University in Dunedin, New Zealand from 29 June to 5 July 2025. The Congress was organized around thematic symposia, but it also included stand-alone papers grouped around some common thread by the local organizing committee. A number of the Congress symposia were focused on history of mathematics or the traditional mathematical sciences.

The International Association for Science and Cultural Diversity (IASCU) organized a symposium on Reflecting on Mathematical Cultures. X. Wang presented “The Formation of a Mathematical Culture and Its Variations—A Case Study of Teaching Analysis at the Ecole Polytechnique.” C. Hofstetter offered an analysis of “Ancient reading practices: the scholia of Byzantine annotators.” Professor G. Loizelet described the “Variety of cultures within Arabic astronomical texts,” arguing that Islamic or Arabic science was not monolithic. X. Zhou explained “The mathematical problem of  $\pi$  in Chinese musical temperament works around the end of the 16th century” and how these discussions differed from those of traditional mathematics. E. Hunter, in her paper, “For the French Nobility (and others): The Broad Readership of David de Flurance Rivault’s Edition of Archimedes,” explained how the text of this edition of Archimedes was modified to make it more attractive to non-mathematician readers.



## CALL FOR PAPERS / APPEL À COMMUNICATIONS

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

Annual Meeting / Colloque annuel  
Dalhousie University / Université Dalhousie  
4-6 June 2026 / 4-6 juin 2026 / Halifax, Nova Scotia

Special Session / Séance Spéciale  
Ancient Mathematics / Mathématiques dans l'Antiquité  
Kenneth May Lecturer / Conférencière Kenneth May  
Jacqueline Feke, University of Waterloo

The CSHPM will hold its 2026 Annual Meeting in Halifax at Dalhousie University in conjunction with the 2026 Meeting of the Canadian Philosophical Association and the Canadian Society for the History and Philosophy of Science, Thursday - Saturday, June 4-6, 2026.

Special Session - Ancient Mathematics: Papers are welcome on the history and/or philosophy of mathematics in the ancient world, or on any related topic. Talks concerning the mathematics of any pre-modern culture are welcome. Talks may be given in either English or French.

General Session: Papers are welcome 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 may be given in either English or French.

Proposals for special events such as stand-alone paper sessions, panels, or symposia are welcome; please direct your proposal to all three organizers.

Travel stipends of \$750 CA are available for up to six papers given by graduate students and early career scholars (post-2023 PhD) at this meeting.

*Please send your title and abstract (200 words or less) in Word or in the body of an email by February 1, 2026, to: / Veuillez envoyer le titre de votre communication, ainsi qu'un bref résumé de 200 mots ou moins en format Word ou dans le corps d'un courriel avant le 1 février 2026 à:*

*GENERAL SESSION / SÉANCE GÉNÉRALE:*  
Maria Zack, [mzack@pointloma.edu](mailto:mzack@pointloma.edu)

La SCHPM tiendra l'édition 2026 de son colloque annuel à l'Université Dalhousie à Halifax, dans le cadre de l'Association Canadienne de philosophie et de la Société Canadienne d'histoire et de philosophie des sciences, du jeudi 4 juin au samedi 6 juin 2026.

Séance spéciale - Mathématiques dans l'Antiquité : Les articles touchant à l'histoire et/ou à la philosophie des mathématiques dans l'antiquité sont bienvenus. Les présentations portant sur tout sujet lié aux mathématiques prémodernes sont aussi bienvenues. Les présentations peuvent être en français ou en anglais.

Séance générale : Les articles portant sur tout sujet lié à l'histoire des mathématiques, à son utilisation dans l'enseignement des mathématiques, à la philosophie des mathématiques, ou tout autre sujet connexe sont bienvenus. Les présentations peuvent être en anglais ou en français, et peuvent porter sur des travaux en cours.

Les propositions d'événements spéciaux tels que des sessions sur un ouvrage, des séances ou des colloques sont aussi bienvenues ; veuillez adresser votre proposition aux trois organisateurs.

Des bourses de voyage de 750 \$ CA sont disponibles pour un maximum de six communications d'étudiants gradués et de chercheurs en début de carrière (doctorat post-2023).

*SPECIAL SESSION / SÉANCE SPÉCIALE:*  
Robert E. Bradley, [bradley@adelphi.edu](mailto:bradley@adelphi.edu)  
Duncan Melville, [dmelville@stlawu.edu](mailto:dmelville@stlawu.edu)



The International Commission on the History of Mathematics (ICHM) organized a symposium focused on Interactions between European and Latin American mathematicians from colonial times to the 20th century. Clara Helena Sanchez Botero described “The influence of European mathematicians in the development of Mathematics in Colombia.” Danuta Halina Ciesielska explained factors that contributed to “Alfred Rosenblatt’s path to a better life in Lima.” Alejandro Garciadiego focused on the “Origins of the Theory of Sets in Mexico: The translation into Spanish of Grelling’s book” on theory of sets. Prof Luis Español González reflected on “The work of emigrated Spanish mathematicians to Argentina in the aftermath of the Spanish Civil War.” Prof Luis Saraiva concluded the symposium with an overview of “The work of 20th century emigrated Portuguese mathematicians to Brazil and Argentina in the period 1945–1980.”

The ICHM also organized a symposium on The roles of learned societies and scientific institutions in facilitating (or obstructing) international exchange in mathematics and statistics. Michael Barany (U of Edinburgh) explored “Negotiating a ‘Truly International’ Mathematical Congress and the Community of National Institutions in the Mid-Twentieth Century.” Nicolas Michel (U of Cambridge) investigated the controversy over enumerative geometry in his paper “Truth below the Rhine, error beyond? International negotiations over geometrical exactness, c. 1880.” Jemma Lorenat (Pitzer College) explored relationships within the scientific community by focusing on “Guest speakers, seating charts, and train schedules: party planning and international diplomacy in mathematics circa 1922.” June Barrow-Green described the critical role of G. H. Hardy in “The founding of the Journal of the London Mathematical Society.” Petra Stankovic presented an overview of “The Participation of Russian and Soviet Mathematicians in the International Congresses of Mathematicians, 1897 to 1978.” Sayori Ghoshal (Max Planck Institute) focused on colonialism and mathematics in “Internationalizing Indian Statistics: Forging Connections, Maintaining Borders in the 20th century.” Caroline Ehrhardt (Université Paris 8) presented “Academic mathematics and media mathematics: exchanges and disagreements at the Académie des sciences of Paris in the 1830s.” Brigitte Stenhouse (Open University) considered “Mathematics on the Periphery: Mary

Somerville’s interactions with 19th-century learned societies.”

A symposium on Cosmological Challenges in the Post-Avicennian World, cosponsored by the Commission on the History of Science and Technology in Islamic Societies (CHOSTIS) and the Commission for the History of Ancient and Medieval Astronomy (CHAMA), included several papers on medieval mathematical cosmography (*hay’a*). Robert Morrison (Bowdoin College) described “Levi b. Gerson’s Models for Planetary Latitudes,” which are often overlooked by historians. Taro Mimura (U of Tokyo) considered “Athīr al-Dīn al-Abharī as an Author of Cosmological Works,” focusing on his discussion of *extithay’a*. Yuta Araki described his current research “Reassessing Naṣīr al-Dīn al-Ṭūsī’s *Tahrīr al-Majistī*: Bridging Traditions in Post-Avicennian Astronomy.” Hasan Umut (Boğaziçi University) presented the paper “Discussing Problems in Ptolemaic Astronomy in the Ottoman Context: Molla Ahaveyn and his *al-Ishkālāt fī ‘ilm al-hay’a*.” Nathan Hartmann (U of Canterbury) discussed “Modeling the (Co)Tangent: A Glimpse into Medieval Islamicate Mathematics.” Clemency Montelle (U of Canterbury) provided an overview of “Eclipse Diagrams in Sanskrit Sources.” Johannes Thomann (U of Zurich) described “The Persistence of Greek Dot Designations in Arabic *Almagest* Translations and Commentaries.” Kim Plofker (Union College) outlined “Latin-Sanskrit conic sections analysis in 18th-century Jaipur.”

Two of the three sessions of the symposium History of Science in India focused on mathematical topics. Mahesh Koolakkodlu (Kharagpur) surveyed “The Role of Commentaries in Preserving and Advancing Indian Astronomy and Mathematics.” Aditya Sri Ram Kolachana (Madras) discussed musicology and “Combinatorics of the *saṃyoga-meru* in the *Saṅgīta-ratnākara*.” Sooryanarayan Doraisamy Gobu (Bombay) introduced “Nārāyaṇa Paṇḍita’s Magic Squares.” Varuneshwar Reddy Mandadi (Bombay) explained “Ahargaṇa and Cakras in Grahālāghava: Gaṇeśa Daivajña’s Innovative Method to Simplify Astronomical Calculations.” Nagakiran Yelluru (Madras) explained different approaches to the “Geometry of *prāṇakalāntara* in the *Lagnaprakaraṇa*” of Mādhava. Sreeram Gopinath (Madras) described the *kuṭṭaka* algorithm for solving linear indeterminate equations using “An analysis of *kuṭṭakādhya* of Brahmagupta’s *Brāhmasphuṭasiddhānta* in light of its *Prthūdakas-*



vāmin's Vāsanābhāṣya commentary." Aniruddha Ramamurthy Kondi (Bombay) focused on "Reconstructing the Musical Instrument 'Paṭaha' Based on Descriptions found in Medieval Indian Musicological Texts."

In addition to full symposia devoted to mathematical topics, there were a number of individual papers in other symposia or in stand-alone sessions of interest to historians of mathematics:

- Rowena Ball (Australian National University) described "Indigenous mathematics: The finest, long-distance, communication system in the world," which discussed practical mathematics involved in traditional Australian smoke signaling.
- Razieh Mousavi (Max Planck Institute) described "The Circulation of Moonrise-Moonset Timekeeping Methods in Islamic Literature (ca. 800–1600 CE)" and their mathematical characteristics.
- Nicholas Winters (Northwestern University) explained the importance of "Pythagorean Terminology in Greek Mathematics."
- Zahra Pournajaf (U of Tehran) gave an overview of "Muḥammad Bāqir Yazdī's commentary on [the] 10th book of Euclid's *Elements*."
- Sena Aydın reported some "Preliminary Results of the Project on Replicating the Optical Experiments of Taqī al-Dīn" for testing mathematical hypotheses of his predecessors.
- Sabrina Helena Bonfim (Universidade Federal de Mato Grosso do Sul, Brazil) explored the "History of Vector Calculus in the Relations between Brazil and France in the First Three Decades of the 20th Century."
- Oscar João Abdounur (Brazil), outlined connections of "Mathematics and music in the Renaissance: compounding theory and practice in the history of musical instruments."
- Andreas Sofianos (National Technical University of Athens) explained "A Socio-Economic Historiographical Approach on Dynamical Systems Theory and Chaos."
- Eun Hee Lee (Yonsei University) gave an overview of "The Travels of Parallax Correction Tables from Islamic World to Joseon Korea."
- Shuanlin Zhao (Inner Mongolia Normal University) explained "The Compilation of the Chronological Biographies of Astronomers and Mathematicians in the Qing Dynasty and the Construction of the Academic Social Network."

- Lewis Pyenson (Western Michigan University) explored "A Distinct Modernity: Counterdisciplinary Art and Mathematics in Buenos Aires circa 1900."
- Lalitha Sarma R (Bombay) focused on "Exploring the Epistemology of Indian Mathematics: A Study of Upapatti in the Bijapallava of Kṛṣṇa Daivajña."
- Karine Chemla (CNRS/U of Edinburgh) explained "Decimal place-value notations prior to the 10th century: a material computer."
- Agathe Keller (CNRS) described "The use of diagrams in Śaṅkara Variyār's proof of the approximation of the circumference of a circle."

*Gregg De Young*

## HOM SIGMAA Update

Greetings from HOM SIGMAA! Beginning in October we have scheduled a great slate of speakers for our 2025–2026 SIGMAA HOM Virtual Speaker Series. Talks will occur on selected Fridays. The tentative schedule is below. All talks will take place over Zoom at 3:00 pm Eastern Time. We will send more information about the speakers, an abstract of their talk, and the Zoom link prior to each meeting. We anticipate that each session will last one hour, including time for Q&A.

- October 3: Saša Papović (Mathematical Institute of the Serbian Academy of Sciences and Arts)
- November 7: Francisco A. González Redondo (Universidad Complutense, Madrid)
- January 16: Eugene Boman (Pennsylvania State University) and Robert Rogers (State University of New York, Fredonia)
- February 13: James Sellers (University of Minnesota, Duluth)
- March 13: Dwight Anderson Williams II (Morgan State University)
- April 4: Colette Chilton-Carr (Florida Atlantic University)

If you have any suggestions for speakers for our Virtual Speaker Series, please contact Abe Edwards, [aedwards@msu.edu](mailto:aedwards@msu.edu), the HOM SIGMAA Program Coordinator.

At MathFest 2025 in Sacramento, CA, August 6–9, History of Mathematics was present in numerous events including talks, sessions, workshops, prizes and awards, panels, readings, a business meeting, and a trivia contest. For example, Danny Otero and Amy





Figure 10: Celebrating IHMT.

Ackerberg-Hastings organized an Invited Paper Session commemorating The Institute on the History of Mathematics and its Use in Teaching: 30 Years of Impact on Education and Research. The three living directors and grant-writers, Florence Fasanelli, Fred Rickey, and Victor Katz, were all able to attend. Victor also gave the annual HOM SIGMAA Invited Lecture, “Musings on Greek Mathematics.” The TRIUMPHS Society presented a Workshop on Engaging and Inspiring Students in the Mathematics Classroom by Teaching with Primary Source Projects. Rick Gilman and Grace Cook organized a Special Session on Notable Events in the Histories of the 29 Sections of the MAA. History of mathematics even showed up in surprising places, as two HOM SIGMAA officers were mentioned in MAA President Hortensia Soto’s Retiring Address! Finally, Chair Ximena Catepillán was delighted to receive the MAA Yueh-Gin Gung and Dr. Charles Y. Hu Distinguished Service Award. Looking ahead to the Joint Mathematics Meetings in Washington DC, January 4–7, 2026, there will be a number of talks related to the history of mathematics. See the schedule provided elsewhere in this *Bulletin*. Perhaps we will see some of you in Washington this winter!

*Abe Edwards & Ximena Catepillán*



Figure 11: Ximena Catepillán (right)

## Joint Math Meetings in Washington, DC

A number of events in history and philosophy of mathematics have been planned for the Joint Mathematics Meetings, to be held in Washington, DC, January 4–7, 2026. More information can be found on the conference website: [jointmathematicsm meetings.org](http://jointmathematicsm meetings.org).

### Sunday, January 4

- 10:50–11:55: MAA-AMS-SIAM Gerald and Judith Porter Public Lecture, “The shape of letters: from Leonardo da Vinci to Donald Knuth,” by Étienne Ghys.
- 13:00–17:00: AMS Special Session on Mathematically Rigorous Approaches to Quantum Field Theory II.
- 14:10–15:15: PME J. Sutherland Frame Lecture, “100 Years of Sperner’s Lemma: Proofs, Generalizations, and Applications,” by Francis Su.

### Tuesday, January 6

- 8:00–12:00: AMS Special Session on History of



Mathematics I, organized by Jemma Lorenat, Elizabeth A. Hunter, Laura Turner, Sloan Evans Despeaux, and Deborah Kent.

- 9:00–11:30: POM SIGMAA Special Session on Current Directions in the Philosophy of Mathematics I, organized by Steven M. Deckelman and Bonnie Gold.
- 9:30–9:45: “3x4 Ways to Multiply,” by Mark McKinzie and Heather Lewis, in AMS Contributed Paper Session on Mathematics Education, Outreach, History, and Recreation I.
- 10:00–10:30: “A Brief History of Hypercomplex Numbers,” by Joel Shelton, in AMS Special Session on Quaternions I.
- 11:30–12:00: “The Development of WeBWorK: A Historical Perspective and a Glimpse of the Future,” by Glenn R Rice, in AMS Special Session on 30 Years of WeBWorK: The State and Direction of Online Mathematics Assessment I.
- 13:00–17:00: AMS Special Session on History of Mathematics II.
- 13:30–16:00: POM SIGMAA Special Session on Current Directions in the Philosophy of Mathematics II.
- 15:00–15:30: “Hidden Gems from  $SU(2)$ ’s Past,” by Bob Palais, in AMS Special Session on Quaternions II.

### Wednesday, January 7

- 8:00–11:00: NAM Special Session: 50 Years of Math at Howard – Commemorating the First Doctoral Program at an HBCU I, organized by Aris Winger and Edray Goins.
- 13:00–16:00: AMS Special Session on History of Mathematics III.
- 13:00–17:00: NAM Special Session: 50 Years of Math at Howard – Commemorating the First Doctoral Program at an HBCU II.

## MAA Convergence Update

*MAA Convergence*, the MAA’s refereed online journal for the use of the history of mathematics to teach mathematics, has begun building a presence within the online suite of MAA subscription journals managed by Taylor & Francis. For instance, the final two installments in the long-running “Series of Mini-projects from **T**Ransforming **I**nstruction in **U**ndergraduate **M**athematics via **P**rimarily **H**istorical **S**ources,” have appeared in our new location at [maa.tandfonline.com/journals/ucnv20](http://maa.tandfonline.com/journals/ucnv20).

“Three Hundred Years of Helping Others: Three Mini-Primary Source Projects for Precalculus Students,” by Kenneth M Monks, using excerpts by Maria Agnesi; and “From Sets to Metric Spaces to Topological Spaces,” by Nicholas A. Scoville, guiding students through work by Felix Hausdorff and others.



Figure 12: Maria Agnesi

Two of our other series have also continued. For the fifth installment of “Historically Speaking,” series editor Betty Mayfield tapped Dan Curtin to provide commentary on a set of three columns that Phillip S. Jones published in 1954 in *Mathematics Teacher*, “Complex Numbers: An Example of Recurring Themes in the Development of Mathematics.” Mike Molinsky added two entries to his “Quotations in Context” series: Charles Babbage and Carl Friedrich Gauss. Kyle Riley supplied a new Mathematical Treasure on Brook Taylor’s 1715 *Methodus Incrementorum Directa et Inversa*.

These articles are available to MAA members and readers whose institutions have subscriptions to T&F periodical databases. Occasionally, MAA staff will



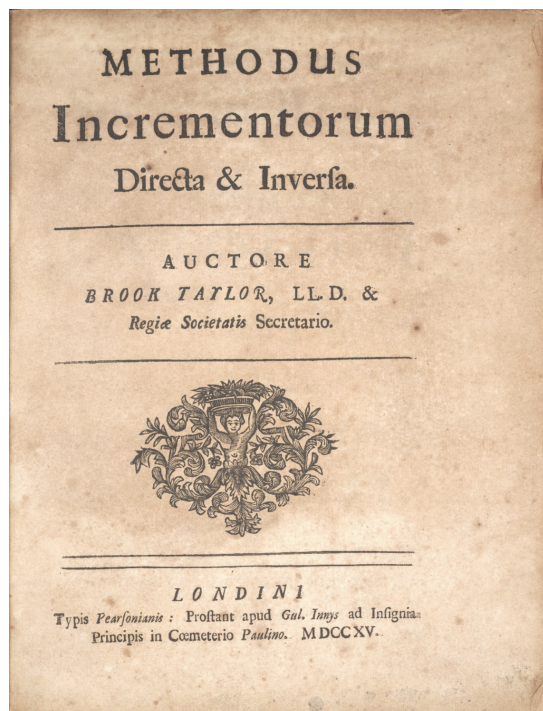


Figure 13: The title page of Taylor 1715

arrange for individual items to be open access for everyone for a limited time. The MAA continues to prepare our first 21 volumes for transfer to T&F, so web access through its “old” website has been extended to summer 2026. Find the homepage at [old.maa.org/press/periodicals/convergence](http://old.maa.org/press/periodicals/convergence).

Ready to discuss a possible submission? Have questions about our new or old material? Find a broken link at the previous website? Please contact us at [convergence@maa.org](mailto:convergence@maa.org).

We also remind readers that our long-running Calendar of conferences on the history of mathematics and its use in teaching has moved to HOM SIGMAA’s website, [homsigmaa.net](http://homsigmaa.net), where it is managed by Electronic Resources Coordinator (and former *Convergence* associate editor) Bud Boman.

*Daniel E. Otero & Amy Ackerberg-Hastings*

## Most Ingenious Paradoxes<sup>1</sup>

The Mathematical Association of America had its annual meeting (MathFest) in Sacramento, California, in August. As readers may know, there are separate

<sup>1</sup>The title comes from Gilbert and Sullivan’s *The Pirates of Penzance*, one of the favourite works of the late Hardy Grant.

Special Interest Groups in the MAA for history and philosophy. MathFest featured quite a bit of history in various forms, including a session on the history of various sections of the MAA and a trivia contest. The Philosophy of Mathematics SIG sponsored an invited paper session on paradoxes (the topic being one for which I have to take the credit or blame), in which there were five speakers. The talks were as follows:

Martin Flashman (emeritus from Humboldt State) addressed the topic of paradoxes and philosophical commitments. He pointed out that paradoxes invite mathematicians and philosophers to explore ontology and epistemology. He thus looked at the way that ontological and epistemological commitments arise.

Dan Sloughter (emeritus from Furman University) made sure that no one in the room could have guessed what direction his talk would take by taking up medieval Icelandic algorithms. He had recently had the chance to consult some old Norse manuscripts while he was in Iceland and looked at a particular example of an account of algorithms that ends up with an apparent fragment of Plato’s *Timaeus*. He referred to a paper of Donald Knuth from 1979 discussing the contents of the manuscript and noted that Knuth at that point suggested that ‘algorithmics’ might be a better name than ‘computer science’.

In the third talk Amy Ackerberg-Hastings (*MAA Convergence*) swapped her usual historical hat for a philosophical one by looking at arguments in the United States in the early nineteenth century about why and to whom mathematics should be taught. She suggested that beliefs about the power of mathematics to train immature minds to exhibit ‘mental discipline’ were often internally inconsistent.

In the fourth talk Paul Zorn (emeritus from St. Olaf College, Northfield, Minnesota) addressed a budget of paradoxes, following in the footsteps of Augustus De Morgan. He looked at what Quine had to say about paradoxes (as Martin Flashman had) and pointed to mathematical results that had a puzzling aspect but which came out of analysis. An example was  $e^{\frac{\pi}{2}} = i$ , the  $i$ th root of  $i$ . It may follow from a result of Euler but it looks as though it shouldn’t be true.

The last speaker was Thomas Drucker (emeritus from the University of Wisconsin – Whitewater), who pointed to the way in which paradoxes (unlike theorems or axioms) crop up in literature as well as in mathematics, and he gave examples from Oscar



Wilde, George Bernard Shaw, and G. K. Chesterton. He then indicated that the path from a paradox to a theorem is not always predictable, such as the Löwenheim-Skolem Theorem. A paradox like Russell's was enough to shatter Frege's confidence in his painfully constructed foundation for mathematics. Any decent paradox has an element of surprise attached to it.

The attendance for the session was reasonable, despite the fact that the later speakers were competing against Terence Tao. The reader will have noticed that there was a tilt in the direction of emeritus status among the participants. Those of us with an interest in philosophy have to keep recruiting younger members of the mathematical profession to share our concern with puzzles like paradoxes.

*Thomas Drucker*

## Quotations in Context

“There is more in Mersenne than in all the universities together.”

The French mathematician Marin Mersenne (1588–1648) is perhaps most famous for making connections between scientists, philosophers and mathematicians across Europe. One of those contacts was the English philosopher (and amateur mathematician) Thomas Hobbes (1588–1679), who spent a number of years in Paris interacting with other scholars, including Mersenne. The earliest source I could find that contained this exact quotation is the 1985 textbook *Calculus with Analytic Geometry* by George Simmons, where he ascribed it to Hobbes on page 789 with no source provided.

The earliest work I found that at least claimed Hobbes said something similar was Stanley Keeling's 1934 book on Mersenne's contemporary, René Descartes (1596–1650). In the first chapter, Keeling described the fact that Descartes felt most comfortable corresponding with other scholars, meeting in person only occasionally with Mersenne or the Dutch scientist Isaac Beeckman (1588–1637):

He evaded anything like constant contact, preferring occasional chance meetings with a Beeckman, or, more rarely, a visit to his closest friend Mersenne, a brilliant mathematician with whom he studied for two years, and a delightful and obliging figure in whom, according

to Hobbes, there was more than in all the universities together. Mersenne it was who brought Descartes into touch with his most learned and stimulating correspondents in science and philosophy, and who facilitated exchanges of ideas and works in a day before academies and learned societies were founded, and when published transactions, scientific journals, and publishers' catalogues were unimagined. Apparently Descartes depended extremely little upon personal discussion for intellectual stimulus [Keeling, pp. 5–6].

Elsewhere in the chapter, Keeling clearly denoted any quotations that appeared, so we can infer that Keeling was at best paraphrasing Hobbes' opinion of Mersenne, not providing his exact words. Further, Keeling provided no information upon what sources from Hobbes he was basing this assessment.

I've searched through the published work of Hobbes, and I can find nothing that matches. For example, in the eleven-volume series *The English Works of Thomas Hobbes of Malmesbury*, published 1839–1845, there are isolated references to Mersenne in volumes 1 and 7, but nothing even close to the given quotation. Of course, physical archives exist that I have not been able to explore, so it is still possible that Hobbes did offer this praise of Mersenne in some unpublished letter or manuscript. But given the fact that I've turned up absolutely no attribution of the quote to Hobbes before 1934, I think the most likely answer is that modern authors are actually quoting Keeling's personal scholarly opinion of how Hobbes viewed Mersenne, and not actually quoting Hobbes at all.

As a (hopefully) interesting aside, before Keeling's 1934 work, the only published source I've discovered that contained wording similar to this column's “quotation” had nothing to do with either Hobbes or Mersenne. In a work published in 1775, the Anglican clergyman Augustus Toplady (1740–1778) included as an appendix the essay “A Dissertation on the Sensible Qualities of Matter,” intended to refute some beliefs of the leader of the Methodism movement, John Wesley (1703–1791). Near the end of the essay, the following discourse on vanity appears:

A vain Man is, generally, still vainer, than the vainest female. Mr. John Wesley, for Example, declares himself to be ‘The greatest “Min-



ister in the World.” I do him the Justice to believe, that, in permitting this Declaration to pass the Press, his avowed Vanity was the honest Trumpeter of his Heart. But how few Others will subscribe to his Opinion! — *There is more learning, in one Hair of my Head*, said the self-enamor’d Paracelsus, *than in all the Universities together*. Who ever questioned, herein, the Sincerity of that pratling Empiric? [Toplady, p. 201]

Paracelsus (1493–1541), also known as Philippus Aureolus Theophrastus Bombastus von Hohenheim, was a Swiss medical pioneer, as well as something of a mystic. He was also definitely not a humble man, so it’s no surprise to find him cited as an example of vanity. The “quotation” from Toplady appears to actually be a paraphrase of part of the personal credo of Paracelsus, from a section in which he compared himself to all other physicians:

I am Theophrastus, and greater than those to whom you liken me; I am Theophrastus, and in addition I am *monarcha medicorum*, monarch of physicians, and I can prove to you what you cannot prove . . . I need not don a coat of mail or a buckler against you, for you are not learned or experienced enough to refute even one word of mine . . . Let me tell you this: every little hair on my neck knows more than you and all your scribes, and my shoebuckles are more learned than your Galen and Avicenna, and my beard has more experience than all your high colleges [Paracelsus, pp. 5–6].

Mike Molinsky

## References

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- Toplady, A. 1775. *The Scheme of Christian and Philosophical Necessity Asserted*. London: Vallance and Simmons.

## TRIUMPHS Society Update

As previously announced in this newsletter, the TRIUMPHS Society (TRansforming Instruction: Understanding Mathematics via Primary Historical Sources) seeks to bring together practitioners and others interested in the use of primary historical sources in the teaching and learning of mathematics. See [triumphssociety.org](http://triumphssociety.org).

The Society’s 2025 efforts to promote the proliferation of primary source-based pedagogy in mathematics through conversation and professional development have thus far included several virtual discussions focused on the Primary Source Projects (PSPs) listed below; recordings of these discussions are available to all under the archived section of the Society’s Programming webpage:

- “The Trigonometric Functions Through Their Origins: Varahamihira and the Poetry of Sines” by Danny Otero (for calculus);
- “The Derivatives of the Sine and Cosine Functions” by Dominic Klyve (for calculus);
- “Braess’ Paradox in City Planning: An Application of Multivariable Optimization” by Ken Monks (for calculus);
- “Lagrange’s Alternate Proof of Wilson’s Theorem” by Carl Lienert (for number theory);
- “The Fourth Root of 2,741,583,974” by Abe Edwards and Bob Bell (for calculus);
- “An Independent Theory of Permutations: Early Group Theory in the Work of A.-L. Cauchy” by Janet Barnett (for abstract algebra).

The Society expanded its professional development program this fall with two members-only sessions on PSP authorship: “Sourcing Good Primary Sources” on October 15 and “The Task of Task Writing” on November 19.

Additionally, the Society will launch a members-only Primary Source Virtual Reading Group in January 2026, with four meetings per year on dates to be announced. Source readings will be selected from a variety of historical periods, places, and cultures; suggestions and requests are welcome.

For those interested in teaching with PSPs, the first four projects listed above (and approximately 100 others) are available for free download from the website of the original TRIUMPHS grant,<sup>2</sup> while the last

<sup>2</sup>See [triumphs.ursinus.edu/](http://triumphs.ursinus.edu/)



two appear in the inaugural issue of the Society's flagship peer-reviewed journal, *Annals of the TRIUMPHS Society*.<sup>3</sup> A legacy issue featuring PSPs written under the parent grant to TRIUMPHS, Learning Discrete Mathematics and Computer Science via Primary Historical Sources, is planned for release in Fall 2025.

In keeping with the Society's goal to promote the use of primary historical sources in the teaching of mathematics, the *Annals* not only publishes PSPs ready for classroom use, but also the journal seeks artifacts and documents related to the development of or that support the implementation of such projects, as well as articles on the scholarship of teaching and learning with primary sources. *If a topic is related to teaching mathematics with primary sources, then it is potentially of interest to the journal—please consider submitting your own work in this exciting field for publication!*

Membership in the TRIUMPHS Society is only US\$12 annually and allows for participation in all Society events (including the upcoming election for a new president-elect). Membership is not required, however, to access or submit to the *Annals*.

Janet Heine Barnett

## New Members

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

Blake Allen  
Waco, TX  
USA

Jerome Fortier  
Saint-Eustache, QC  
Canada

Michael Lithgow  
Edmonton, AB  
Canada

Noam Loyola  
Saskatoon, SK  
Canada

Anthony Piccolino  
Boynton Beach, FL  
USA

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<sup>3</sup>See [triumphssociety.org/annals](http://triumphssociety.org/annals)

Sheldon Richmond  
Toronto, Ontario  
Canada

## From the Editor

As some readers might infer from the slightly-delayed appearance of this issue, the autumn passed in a blur for me between *MAA Convergence*'s ongoing transition to being published by Taylor & Francis and three major PTA advocacy projects, on top of the usual deadlines and tasks outlined in my day planner. Even in a school system with nearly 160,000 students and 25 existing high schools, opening two new high schools is not a simple endeavor! Meanwhile, it is nearly certain that, despite more than a decade of effort, I will not succeed in convincing the system to rebuild the elementary school my child attended before he graduates from high school next June, even though it was constructed by slapping on new wings most years of the 1950s Baby Boom and has a student body of which 75% live in poverty and 43% are English-language learners. Nonetheless, my daily life is manageable, and one of our graduate students has expressed interest in editing the *Bulletin* if we can find time to coordinate our schedules. This season has been more challenging for some of us, and thus a memorial for Greg Lavers has been postponed to Spring 2026. In his President's Message, Rob described some of the ways the current US presidential administration is impacting CSHPM's ability to plan scholarly events. If your household has the means, please consider supporting food pantries, refugee services, and other nonprofits that assist those who are most vulnerable to political caprice.

The next submission deadline for the *Bulletin* is **April 1, 2026**. As always, the editors seek items of interest to historians and philosophers of mathematics, such as reports on conferences attended, activities of other societies, or discussions of publications. We also welcome memorials of historians or philosophers of mathematics who have passed away and short yet substantive articles that are informative or thought-provoking as well as relevant to the practice of history or philosophy of mathematics. Les soumissions en français sont les bienvenues. If you are interested in preparing an Off the Shelf column (re-examinations of classic or overlooked works in the philosophy or history of mathematics) or interviewing someone whose career is related to the history or philosophy of math-



ematics, please contact me. The preferred formats for submissions are Microsoft Word (please turn off its auto-formatting features such as “curly quotes”) or LaTeX data files (not compiled PDFs). **Please avoid hyperlinks and send images as separate files (JPG or PNG formats work well), not embedded in a Word document.** Submissions may be sent to *aackerbe@verizon.net*.

Have an announcement about an event that is time-sensitive? Learn something from another organization that is relevant to CSHPM’s mission? Have some good news to share? All members may post information on the announcements elist by sending an email to *cshpm-announcements@gaggle.email*. If you are not comfortable distributing an announcement yourself, please feel free to ask me to take care of it on your behalf.

*Amy Ackenberg-Hastings*

