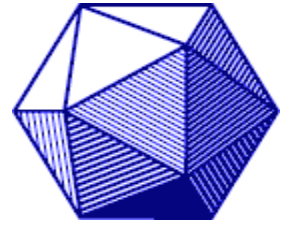


HOM SIGMAA News



Volume XV, Number 1

January 2024

Dates to Remember:

April 30, 2024
Student Essay Contest
deadline

August 7 – 10, 2024
MathFest in
Indianapolis, IN

November 17, 2024
Al-Khwarizmi Student
Paper Contest Deadline

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Greetings from the HOM SIGMAA Chair

Greetings from your HOM SIGMAA Chair

This past fall, we continued our HOM SIGMAA Virtual Speaker Series presentations with six excellent talks, see page 2 for details. If you have any suggestions for speakers for our Virtual Speaker Series, please contact Abe Edwards, our new HOM SIGMAA Program Coordinator. Many thanks to Jemma Lorenat, our past Program Coordinator for her first-rate service.

The 2024 Canadian Society for History and Philosophy of Mathematics (CSHPM) will have its annual meeting at McGill University in lovely Montreal June 15-17, 2024. The meeting will be held as part of the Congress of the Humanities and Social Sciences. The congress registration website is open <https://www.federationhss.ca/en> and the abstract submission deadline is February 10, 2024.

Mark your calendars for MathFest 2024 in Indianapolis, IN, August 7-10. Our invited speaker for the Annual HOM SIGMAA Business meeting will be Victor Katz, *Convergence* Co-Founding Editor. HOM SIGMAA is planning on having numerous events including talks, sessions, workshops, prizes and awards, panels, readings, a business meeting, and a trivia contest.

The HOM SIGMAA article, submitted to MAA FOCUS by the officers, was published in the Spotlight on SIGMAAs section of the October/November 2023 edition. <http://digitaleditions.walworthprintgroup.com/publication/?m=7656&i=803817&p=40&ver=html5>



Prasat Bakong temple at Angkor Wat, Cambodia



Lastly, I would like to share a picture of a memorable trip to Cambodia last August with Cynthia Huffman, our HOM SIGMAA Secretary/Treasurer, with a group of archaeologists and historians to study the solar zenith passage alignment at various Khmer temples.

Best regards from Ximena

HOM SIGMAA Virtual Speaker Series

Virtual talks in the history (and philosophy!) of mathematics continued this past fall with a series of virtual-only and hybrid talks, which were sponsored in collaboration with the Canadian Society for the History and Philosophy of Mathematics and the Claremont Seminar in the History and Philosophy of Mathematics.

- September 18, Amir Alexander (UCLA) on “The Sceptical Mathematician: How John Wallis Saved Mathematics for the Royal Society”
- September 22, Jessie Hall (IHPST at University of Toronto) on “Computing machines and the implementation of abstract automata”
- October 23, Louis Beaugris (Kean University) on “A mathematician and all his functions: The untold story of Lucien Hibbert”
- October 27th and November 10, Bernd Buldt (Purdue), A two-talk series, one on the history of topology, and the other on the philosophical foundations of topology.
- November 13, Kris Palmieri (University of Chicago) on “True Grit: Writing the History of Women at Yerkes Observatory, 1895–1950”
- November 20, Julia Tomasson (Columbia University) on “Inventing the ‘Islamic Golden Age’: Orientalism and the History of Mathematics”

Watch the HOM SIGMAA community on MAA Connect for information on upcoming speakers during Spring 2024.

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Thanks to Jemma Lorenat for her service!

HOM SIGMAA is grateful to Jemma Lorenat for her service as HOM SIGMAA Program Coordinator the last three years. In addition to being an active contributing member of the HOM SIGMAA Executive Committee, Jemma has been responsible for planning and scheduling HOM SIGMAA events at Math-Fest and JMM and for beginning the HOM SIGMAA Virtual Speaker Series. Thanks for your great work, Jemma!!!

TRIUMPHS Society and Journal Established

The founding members of the TRIUMPHS Society, *TR*ansforming Instruction: Understanding Mathematics via *P*rimary Historical Sources, announced its official launch earlier this year. The aims of this new society are to:

- bring together practitioners and others interested in the use of primary historical sources in the teaching and learning of mathematics;
- encourage and support the development and use of classroom resources based on primary historical sources;
- share teaching experiences and publicize research based on the implementation of such resources; and promote the proliferation of primary source-based pedagogy in mathematics through conversation and professional development. .

Through its peer-reviewed journal, *The Annals of the TRIUMPHS Society*, the society intends to publish Primary Source Projects (PSPs) and similar classroom-ready materials designed to teach specific mathematical topics by engaging students with excerpts from primary historical sources, artifacts related to the development of such projects, and articles on scholarship related to the use of such materials. If a topic is related to teaching and learning mathematics with primary historical sources, then it is potentially of interest to the journal. The *Annals* editorial board is currently working to establish a home for the journal. The first issue of the *Annals* is projected to appear in Fall 2024. Editorial policies and submission guidelines are forthcoming. For more information about the new TRIUMPHS Society and journal, visit <https://triumphssociety.org>.

Janet Heine Barnett (From the CSHPS November 2023 newsletter)



Welcome to recently elected HOM SIGMAA Program Coordinator Abe Edwards!

It is with great pleasure that HOM SIGMAA welcomes Abe Edwards to the role of Program Coordinator. Keeping in mind that paper sessions, panel discussions, and special lectures are approved about a year in advance, please share your ideas for HOM events at JMM and MathFest with HOM SIGMAA Program Coordinator Abe Edwards at aedwards@msu.edu. Also, please contact him if you are willing to organize or co-organize such an event, have ideas for the HOM SIGMAA Virtual Speaker Series, or are interested in helping out in any way, big or small, with HOM SIGMAA programs. All suggestions are welcome!

HOM SIGMAA Student Travel Grants Available

HOM SIGMAA is pleased to announce travel grants to graduate and undergraduate students. Money is available to help students travel to meetings to present a paper or poster in the history of mathematics. Details can be found in the HOM SIGMAA community on MAA Connect, www.connect.maa.org.

2024 HOM SIGMAA Executive Committee

Chair: Ximena Catepillán, Millersville University,
Ximena.Catepillan@millersville.edu

Secretary/Treasurer: Cynthia Huffman, Pittsburg State University,
cjhuffman@pittstate.edu

Program Coordinator: Abe Edwards, Michigan State University,
aedwards@msu.edu

Electronic Resources Coordinator: Antonia Cardwell, Millersville Univ.,
Antonia.Cardwell@millersville.edu

Prize Coordinator: Amy Shell-Gellasch, Eastern Michigan University
ashellge@emich.edu

Past Chair: Amy Shell-Gellasch, Eastern Michigan University,
ashellge@emich.edu

Save these dates for future MAA meetings!

MathFest 2024	Indianapolis, IN	August 7-10
MathFest 2025	Sacramento, CA	August 6-9
MathFest 2026	Boston, MA	August 5-8
MathFest 2027	New Orleans, LA	August 4-7
MathFest 2028	San Diego, CA	August 2-5

Convergence Calendar

Visit <https://www.maa.org/press/periodicals/convergence/convergence-calendar> for a list of events and meetings around the world which relate to the History of Mathematics.

Small grants for the history of mathematics classroom are available

HOM members who need some help to purchase items for use in the teaching of the history of mathematics are encouraged to apply for a small grant. Information on how to apply can be found on our website <https://homsigmaa.net/> and at the end of this newsletter.



Euleriana is a peer-reviewed journal dedicated to the life and work of Leonhard Euler, with secondary foci on Euler's legacy and the wider world of scholarly work in the 18th century. (See journal's [Aims and Scope](#) for more information.) The journal aims to be a leader in the expanding world of Euler scholarship.

Euleriana is an open-access journal, meaning that all of the content is freely available without charge to the user or their institution. Volume 4 will be appearing soon.

We'd love to hear from you! Euleriana is accepting submissions, including translations, historical and archival notes, and book reviews. Potential authors are encouraged to contact the editors (Erik R. Tou, etou@uw.edu, and Christopher Goff, cgoff@pacific.edu) to inquire about papers before submission.



MAA invites you to join the online community, MAA Connect. This member benefit is designed for MAA members to connect, communicate, and collaborate with peers. This is a platform to share ideas, ask questions, and network.

You can log in to MAA Connect using your MAA membership username and password. The webpage at <https://connect.maa.org/home> provides more information on getting started and how to use MAA Connect. Use this information to set up your profile, or use the Getting Started instructions as you familiarize yourself with the platform.

If you have any issues logging in, please contact MAA Customer Service at 800-331-1622 or maaservice@maa.org.

Convergence Helps Instructors Bring History into Mathematics Classrooms

Daniel E. Otero and Amy Ackerberg-Hastings

Editors, *MAA Convergence*

Convergence, the MAA's refereed online journal on the history of mathematics and its use in teaching, finished 2023 strong with two practical articles on incorporating primary sources into mathematical classrooms. In "[Pitfalls and Potential Solutions to Your Primary Source Problems](#)," Adam E. Parker walks readers through 8 challenges that can arise when identifying and implementing historical documents, from figuring out what sources might be relevant to particular topics to making cost-benefit calculations. When instructors have materials ready for students to explore, Jennifer Clinkenbeard explains a tool for increasing reading comprehension in "[Primary Source Projects and Reading Apprenticeship in Mathematics History](#)."



Avoid getting tripped up by pitfalls that can arise from classroom use of primary sources such as this work by Jacob Bernoulli by following Adam Parker's advice for instructors.

Articles that discuss episodes in the history of mathematics and suggest classroom applications include "[The Theorem that Won the War](#)" by Jeff Suzuki, which considers the contributions of three Polish mathematicians (Marian Rejewski, Henryk Zygalski, and Jerzy Rózycki) to cracking the Enigma machine and offers activities that address several key concepts in abstract algebra. In "[A Selection of Problems from A.A. Markov's Calculus of Probabilities](#)," Alan Levine provides excerpts from his full translation of this textbook first published in 1900. Ximena Catepillán translated Sandra Monteferrante's 2007 *Convergence* article, "[Maya Cycles of Time](#)," into Spanish, "[Ciclos de Tiempo Maya](#)." Finally, our long-running series of recent reprints from NCTM's *Mathematics Teacher* closed with "[Seeking Relevance? Try the History of Mathematics](#)," featuring a posthumous reflection on the benefits of integrating historical content into mathematics courses by *Convergence* founding co-editor Frank Swetz.

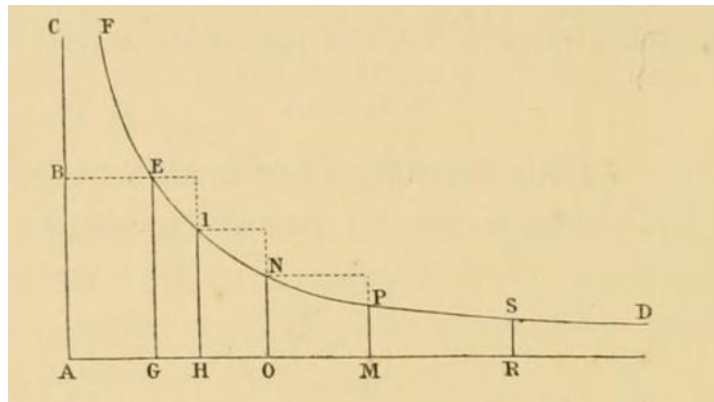


A. A. Markov (1856–1922).
Convergence [Portrait Gallery](#).

Three new entries have been added to the TRIUMPHS team’s “[A Series of Mini-projects from TRansforming Instruction in Undergraduate Mathematics via Primary Historical Sources](#)”:

- “[Beyond Riemann Sums: Fermat's Method of Integration – A Mini-Primary Source Project for First-Year Calculus Students](#),” by Dominic Klyve;
- “[Lagrange’s Work on Wilson’s Theorem: Three Mini-Primary Source Projects for Number Theory Students](#),” by Carl Lienert;
- “[Three Hundred Years of Helping Others: Maria Gaetana Agnesi on the Product Rule – A Mini-Primary Source Project for Calculus 1 Students](#),” by Kenneth M Monks.

Additionally, Michael Molinsky added three quotations about mathematics and mathematicians to his series of “[Quotations in Context](#),” two that may or may not have been stated by Galileo and one by Henri Poincaré. Amy Ackerberg-Hastings provided pointers to online collections of slide rules historically used in classrooms and suitable for discussion in today’s classrooms for our “[Keys to Mathematical Treasure Chests](#)” series.



Fermat’s rectangles of different widths for estimating the area under a hyperbolic curve.

See all of the articles mentioned above and more by starting at our home page: <http://www.maa.org/press/periodicals/convergence>.

[Interested in contributing? We'd love to hear from you at convergence@maa.org!](mailto:convergence@maa.org)

Convergence publishes several types of articles, including:

- classroom activities, projects, or modules for using history to teach mathematics;
- expository articles on the history of topics in the grades 8–16 mathematics curriculum that also provide suggestions for how to incorporate the content of the article into classroom teaching;
- translations of primary sources suitable for classroom use, accompanied by commentary explaining the work and its context and discussing how knowledge of the mathematical ideas in the translation can be used to teach the same ideas to today's students; and
- testimonials reporting on the application of historical activities, projects, or modules, including those listed in our [Classroom Resources Index](#).

Additionally, we welcome submissions related to the following *Convergence* features:

- [Mathematical Treasures](#) and [Portrait Gallery](#).
- [Problems from Another Time](#), highlighting historical problems.
- [On This Day](#), a listing of three or four historic mathematical events that happened on any given date.
- Today's Quotation, a quotation about mathematics from a historical figure selected from a [searchable database of quotations](#).
- [Conference Calendar](#), an up-to-date guide to conferences and events around the world that feature or include the history of mathematics and its use in teaching.

Please visit our [Guidelines for Authors](#) for more details on *Convergence*'s submission and refereeing process. Later this year, we will be recruiting for our editorial board as some current associate editors near the end of their terms. Please contact the editors to express interest or suggest candidates. And, join us in thanking Janet Heine Barnett for the stellar term as co-editor that she completed in 2023!

Visit the HOM SIGMAA website today!!!

The HOM SIGMAA website (<https://homsigmaa.net/>) includes HOM SIGMAA news, announcements of upcoming conferences, links to other history of mathematics pages, and other resources. Suggested additions to the website (for example, conference information, links, or photos) are always welcome at Antonia.Cardwell@millersville.edu.

HOM SIGMAA Small Grants

Guidelines and Procedures

Purpose: The HOM SIGMAA wants to aid its members in their quest to bring the joys of the history or mathematics to their students. These small monetary grants will allow HOM SIGMAA members to purchase items that will aid in learning the history of mathematics. For example, a classroom set of abacus or materials to make an historical model.

Guidelines

1. Recipients must be a current member of the HOM SIGMAA
2. The idea is to purchase items, materials to make a historical model, or materials that can be used year after year. (Not supplies that will be used up quickly.)
3. These materials may be used by an individual's colleagues, but belong to the HOM SIGMAA member and not their department.
4. Items or materials must clearly be for the instruction of a historical topic.
5. Grants will be for amounts up to \$100 and considered on a rolling basis (so apply early in the year.)
6. Approval of the grant is at the sole discretion of the HOM SIGMAA executive board.
7. Applications can be made at any time, but may take several weeks to be approved and paid out by the MAA. So plan ahead.
8. Receipts for purchased items is preferable. But if purchase depends on funding, receipts may be required after purchase.
9. Total annual grants dispersed will not exceed \$1000 per year and are subject to HOM SIGMAA funding needs.
10. Preference will always be given to first-time grantees. And the HOM SIGMAA has the right to deny any request if they feel a single member is requesting too often.

How to apply

Please send the application form (available on the HOM SIGMAA website) in Word or PDF to the Chair of the HOM SIGMAA via email.

HOM SIGMAA Classroom Small Grant

Name

Institution

Email

Phone

Address

Funds requested

Item(s) to be purchased

Purpose or use of items

HOM SIGMAA Student Travel Grants

Guidelines and Procedures

Purpose: The HOM SIGMAA wants to support students of the history of mathematics. We will offer travel grants (in the form of travel expense reimbursements) for students traveling to conferences to give a paper or poster on the history of mathematics. Grants are up to \$250 for a local/regional/sectional meeting, and \$350 for a national/international meeting. We encourage students to attend MAA meetings, but grants are not limited to MAA meetings. Submit application materials prior to the meeting; submit registration/travel/lodging receipts and verification of talk after the meeting.

Guidelines

1. Travel must be completed while a student or the summer immediately following graduation.
2. Approval of the grant is at the sole discretion of the HOM SIGMAA executive board.
3. Applications can be made at any time, but may take several weeks to be approved and are paid out by the MAA after travel is completed. So plan ahead.
4. Total annual grants dispersed will not exceed \$1500 per year and are subject to HOM SIGMAA funding needs and will be considered on a rolling basis.
5. Preference will always be given to first-time grantees.

How to apply (prior to meeting):

1. Please send the application form (available on the HOM SIGMAA website) in Word or PDF to the Chair or Secretary of the HOM SIGMAA via email.
2. Have your research advisor email the Chair or Secretary of the HOM SIGMAA a letter verifying your status and stating the nature of your research.

Reimbursement (post meeting):

Email scans of the following to the HOM SIGMAA:

1. travel receipts totaling the grant amount or more
2. program page verifying your participation.

HOM SIGMAA Student Travel Grant Application

Full Name:

Status: (circle one)

Graduate student

Undergraduate student

Home Institution:

Email:

Address:

Conference title and session title:

Location and dates:

Title of talk/poster:

The History of Mathematics Special Interest Group of the Mathematical Association of America

is pleased to announce its 21st annual

Student Paper Contest in the History of Mathematics

This contest is open to all undergraduate students^π

Papers will be judged by a panel of specialists for content, originality, and presentation. Typically first and second place winners are chosen.

Submission Guidelines

- Topics can be drawn from any field of mathematics.
- Papers can address a single person or topic, or be an historical survey of a topic or school of thought.
- Submissions should be approximately 5000 words in length with font that is easy to read.
- Submissions should be in a single PDF file, including a title page with title of paper, the author, school, and complete contact information.
- Papers should include a full citation list.
- Papers should not draw too heavily from web sources.[§]
- Students submitting a paper need not be currently taking a history of mathematics course.
- All papers should be single-authored.
- Eligible papers are those written in the past year and while the author was an undergraduate.

Submission Deadline: April 30, 2024

Results will be announced to winners via email, on MAA Connect,
and on the HOM SIGMAA website in May.

Winning papers will be published on *Convergence*.

Submissions and questions can be directed to
Dr. Amy Shell-Gellasch ashellge@emich.edu

^π Students who have graduated less than a year ago but wrote their paper while still an undergraduate may also participate. Graduate and high school students may also submit for an honorable mention.

[§] Web sources that give access to print material, such as JSTOR, are completely acceptable.

**The History of Mathematics
Special Interest Group of the
Mathematical Association of America**

**Al-Khwarizmi Student Paper Contest in the History
of Mathematics during the Islamic Civilization,
“8th-16th Century”**

This contest is open to all undergraduate students in the USA

The purpose of this contest is to increase awareness and interest in the history of mathematics among undergraduates, and to encourage students to learn more about the contributions of the Islamic Civilization to mathematics.

First and second places winners will be chosen.

Winners will receive a one-year student membership in the MAA and HOM/SIGMAA, and a history of mathematics book.

Eligible Topics and Submission Guidelines

- Contributions of a scholar from the Islamic World to mathematics or geometry during such period.
- Any topic in geometry or mathematics from this period by scholars in the Islamic World.
- Contributions of multiple Islamic/Arabic scholars to a given subject/topic in mathematics in this period.
- Connections of Islamic/Arabic Mathematics and the Arts.
- Connections of Islamic/Arabic Mathematics and Architecture.
- Influence of Islamic/Arabic Mathematics on other civilizations.

- Submissions should be at a minimum 2500 words (approximately 10 double spaced 12 pt. pages) in length.
- Submissions should be in a single PDF file, including a cover page with title, name, school, and full contact information.
- Papers should include a full citation list.
- Papers should not draw too heavily from web sources^π
- Submissions should include a cover sheet with your name, the paper's title, your institution, supervising instructor if applicable, and email and permanent postal address.
- Please submit electronic copy to the email addresses below
- Students submitting a paper need not be currently taking a history of mathematics course.
- Only single-authored papers are eligible.

Deadline for submission is November 17, 2024

Papers will be judged by a panel of specialists for content, originality, and presentation.

Results will be announced via email
and on the HOM SIGMAA website in December.

Submissions and questions can be directed to

Dr. AbdelNaser Al-Hasan
via email at: naser.alhasan@newberry.edu

OR

Dr. Noah Aydin
via email at: aydinn@kenyon.edu

Information can also be found at the HOM-SIGMAA website at
www.homsigmaa.net

^π Web sources that give access to print material, such as JTSOR, are completely acceptable.