International Study Group on the Relations Between
the HISTORY and PEDAGOGY of MATHEMATICS
An Affiliate of the International Commission on
Mathematical Instruction

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This and earlier issues of the Newsletter can be downloaded from our website:

https://hpm.sites.uu.nl/

NOTE FROM THE CHAIR

Dear colleagues,

The year is coming to an end, and a new issue of the newsletter is ready with the usual bibliographic information, news about MAA Convergence, the TRIUMPHS Society updates, and more.

In this issue you will find information about three interesting events for our community. The first one is the second ConEHISME, that will be held online next February. Then, the ESU10, that will take place in Aveiro (Portugal) in July. Finally, the ICHME9 that will be organized in Zaragoza (Spain) in September. Note that you are still in time to submit your contributions to both ESU10 and ICHME9!

We are also happy to announce that the Proceedings of the HPM Satellite Meeting that was organized in Sydney during July 2024 are finally available. It has taken some time to complete the task, but it has been worth waiting. We must thank Snezana Lawrence, Évelyne Barbin, and Luis Puig for all the hard work and the effort that they had to put during the process of editing the 300 pages that constitute this volume.

Two Italian colleagues report about a very interesting initiative offered by the Italian Association for Research in Mathematics education during the spring of 2025: an online course in the epistemology of mathematics, structured in several modules and aimed at PhD students and early-career researchers working in the fields of mathematics education and the history of mathematics.

Finally, as you may notice in pages 23 and 24, there are still a few vacant positions as newsletter distributors in some countries and regions. The editorial team is actively seeking people willing to undertake that duty, and we are happy to announce that a colleague from Iran (Narges Assarzadegan) just joined the team. Please, if you know of possible suitable candidates for any of the vacant positions, feel free to contact any of the newsletter editors (see the last page).

We wish you all a happy end to the year 2025, and we hope that 2026 brings you the best. As you see, there will be plenty of occasions to meet and discuss about history and pedagogy of mathematics… and remember that next year the HPM group will celebrate its 50th anniversary!

Antonio M. Oller Marcén

MAA CONVERGENCE
MAA Convergence Is Carrying On

MAA Convergence, the MAA's refereed online journal for the use of the history of mathematics to teach mathematics, continues to build a presence within the online suite of MAA subscription journals managed by Taylor & Francis. Most recently, we published the final entry in our long-running series of mini-Primary Source Projects from the TRIUMPHS team's A Series of Mini-projects from TRansforming Instruction in Undergraduate Mathematics via Primary Historical Sources. In "From Sets to Metric Spaces to Topological Spaces," Nicholas A. Scoville employs excerpts from Felix Hausdorff's *Grundzüge der Mengenlehre* (*Fundamentals of Set Theory*) of 1914 to show how the notion of a topological space sits naturally between the more familiar notion of a set and that of a metric space. The project also exposes students to the process of abstraction by working directly with Hausdorff's neighborhood axioms and proving their equivalence with modern open set axioms. Several other articles are in production or the final stages of revision and review, so please continue to check https://maa.tandfonline.com/journals/ucnv20 for updates.

Felix Hausdorff (1868–1914). Public domain, Wikimedia Commons.

These articles are available to MAA members and readers whose institutions have subscriptions to T&F periodical databases. Occasionally, MAA staff will arrange for individual items to be open access for everyone for a limited time. Preparation of our first 21 volumes for transfer to T&F is ongoing, so web access to these materials through the MAA's "old" website has been extended to summer 2026. Find the homepage with links to indexes and annual tables of contents at https://old.maa.org/press/periodicals/convergence.

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, https://ecb5.github.io/ConvCal/ConvergenceCalendar.html, where it is managed by HOM Electronic Resources Coordinator (and former MAA Convergence associate editor) Bud Boman.

Amy Ackerberg-Hastings
Independent Scholar (USA)

Daniel E. Otero
Xavier University (USA)

Editors, *MAA Convergence*

TRIUMPHS Society Updates

As previously shared 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. As part of its ongoing efforts to promote the proliferation of primary source-based pedagogy in mathematics through conversation and professional development, the Society has now held three virtual discussion sessions centered around the following existing Primary Source Projects (PSPs):

- "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 further offered two members-only sessions on PSP authorship this fall: "Sourcing Good Primary Source" facilitated by Dominic Klyve and "The Task of Task Writing" facilitated by Janet Barnett and Danny Otero. Recordings of its PSP and authorship discussions are being made available under the archived session section of the Society's Programming webpage.

The Society will also launch a members-only Primary Source Virtual Reading Group in 2026 with quarterly online sessions (in January, April, July and October). Each Friday-Saturday session will include two 2-hour components: Friday afternoon/evening (6–8pm ET) and Saturday morning (11am–1pm ET). Readings will be selected from a variety of historical periods, places and cultures and designed to work through texts that are not very well-known but speak to core mathematical ideas organized chronologically (in 2026: Greek antiquity to the twelfth century; in 2027: 1200–1750; in 2028: 1750–2000). **The inaugural session will be held 16–17 January, 2026.**

The classroom-ready PSPs listed above (and more!) are available for free download from either the website of the original TRIUMPHS grant or from the Society's peer-reviewed journal, *Annals of the TRIUMPHS Society*. In particular, the last two PSPs listed above appear in the Inaugural Issue of the *Annals* which includes two additional new PSPs (on geometry and Boolean algebra, respectively). A legacy issue featuring PSPs from the parent grant to TRIUMPHS, Learning Discrete Mathematics and Computer Science via Primary Historical Sources, will also be released in December 2025.

Membership in the TRIUMPHS Society is only 12 USD annually and allows for participation in all Society events. **Everyone, whether a member or not, is invited to read and submit to the *Annals*.** In keeping with the Society's goals, the *Annals* not only publishes classroom-ready PSPs, but also 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 in the journal!*

Questions? Contact the Mersenne Outreach Coordinator Janet Heine Barnett, or any Society Officer.

Janet Heine Barnett
Colorado State University Pueblo (USA), emerita.

ESU-10 Information. Second announcement

University of Aveiro – Dep. de Matemática (Portugal)

Website: https://esu10.sciencesconf.org

Official email: dmat-esu10@ua.pt

SECOND ANNOUNCEMENT

A *Summer University* (SU) on the *History and Epistemology in Mathematics Education* began as an initiative of the French Mathematics Education community of the IREMs in the early 1980's. From those meetings emerged the organization of a SU on a European scale and became the *European Summer University* (ESU) *on the History and Epistemology in Mathematics Education*. The first ESU was organized in Montpellier (France), 1993. Since then, ESUs have been successfully organized in different places in Europe: Braga (Portugal), 1996; Louvain-la-Neuve and Leuven (Belgium), 1999; Uppsala (Sweden), 2004; Prague (Czech Republic), 2007; Vienna (Austria), 2010; Copenhagen (Denmark), 2014, Oslo (Norway), 2018, Salerno (Italy), 2022[1]. It has now been integrated into one of the main international activities of the HPM Group, which — from 2010 onwards — is organized every four years. Thus, every two years at least one major international meeting of the Group takes place; namely, ESU and the HPM Satellite Meeting of ICME.

1. Aim

The principal aims of the ESU are:

- to provide a forum for presenting research in mathematics education and innovative teaching methods based on a historical, epistemological and cultural approach to mathematics and their teaching, with emphasis on actual implementation;
- to offer an opportunity for mathematics teachers, educators and researchers to share their historical knowledge, their teaching ideas and classroom experience related to this perspective;
- in this way, to motivate further collaboration along these lines, among members of the mathematics education community in Europe and beyond.

2. Rationale

ESU attempts to bring out the following aspects of mathematics:

- Mathematics is a human intellectual enterprise with a long history and a vivid present. Besides its "polished" products, those that can be communicated, criticized and incorporated into the body of mathematical knowledge, the process of "doing mathematics" is equally important, especially from a didactical point of view;
- From this perspective, the meaning of mathematical knowledge is determined not only by the circumstances in which it becomes a deductively structured theory, but also by the procedures that led, or may lead to it and which are indispensable for its understanding.

[1] A brief account of the history of ESU, is available at https://hpm.sites.uu.nl/wp-content/uploads/sites/905/2023/10/HPM2004-ProcedFINAL-corrected_compressed.pdf (p. xxix-xxxi).

- Therefore, learning mathematics should include the understanding of implicit motivations, sense-making actions and reflective processes aimed at the construction of meaning, while teaching mathematics should give the learners the opportunity to "do mathematics."
- As a consequence, perceiving mathematics both as logically structured collections of intellectual products and as processes of knowledge production, should form the core of the teaching of mathematics as well as the image of mathematics spread to the outside world.

Along these lines, emphasizing the integration of historical and epistemological issues in mathematics teaching and learning constitutes a natural way for exposing mathematics in the making. This, in turn may lead to a better understanding of specific parts of mathematics and a deeper awareness of what mathematics as a discipline is. This is important for mathematics education in that it can help students understand that mathematics:

- is the result of contributions from many different cultures;
- has been in constant dialogue with other scientific disciplines, philosophy, the arts and technology;
- has undergone changes over time according to shifting views of what it is and how it should be taught and learnt; and
- has constituted a constant force for stimulating and supporting scientific, philosophical, technical, artistic, and social development.

In this way, learning mathematics and stimulating students' interest in it can be enhanced at all levels of education. Like other approaches, it maintains that mathematics is central to our modern society and a mathematically literate citizenry is essential to a country's vitality; but it also shows the crucial importance of historical and epistemological issues in mathematics. The harmony of mathematics with other intellectual and cultural pursuits, moreover, makes the subject interesting, meaningful, and worthwhile. In this wider context, history and epistemology of mathematics have an additional important role to play in providing a fuller education of the community: not being a natural science, but a formal science closer to logic – hence to philosophy – mathematics has a distinct ability to connect the humanities with the sciences. Societies, of course, value the sciences and want young people to be scientifically educated. A cultural approach to mathematics and science aims to show how these subjects are deeply connected to the humanities: integrating history and epistemology in mathematics education can make this connection visible to students. This is most important, especially today when there is much concern about the level of mathematics that students are learning and about their decreasing interest in mathematics, at a time when the need is rising for both technical skills and a broader education.

3. Focus and main themes of ESU-10

The ESU is more a collection of intensive courses than a conference for researchers. It is a place where teachers and researchers meet and work together. It is also a place where beginners, more experienced researchers, and teachers present their teaching experience to the benefit of the participants and get a constructive feedback from them—and it refers to all levels of education, from primary school to tertiary education, including in-service teachers' training.

The programme and activities of ESU-10 are structured around the following *main themes*:

Theme 1: Integrating history and historical epistemology of mathematics in mathematics education.

Theme 2: Integration of the history of mathematics in classrooms (curricula, courses, textbooks, experiences, original historical sources and material of all kinds).

Theme 3: History of mathematics in (pre-service and in-service) teacher education.

Theme 4: Mathematics and its relation to science, technology, and the arts: Historical issues and socio-cultural aspects in relation to interdisciplinary teaching and learning.

Theme 5: Topics in the history of mathematics education.

Theme 6: Mathematics and cultures.

Theme 7: History of mathematics in Portuguese-speaking countries (Portugal, Brazil, Mozambique, Cape Verde, Angola, Sao Tome e Principe, Guinea-Bissau).

Emphasis is placed on empirical findings from actual classroom experiments and/or existing teaching and learning materials. Insightful theoretical ideas and/or historical analysis with visible didactical implications, however, are also welcome.

Plenaries:

Theme 1: *History of mathematics for the Million*

Snezana Lawrence, England

Theme 2: *The importance and challenge of incorporating original mathematical texts in the classroom*

Fàtima Romero-Valhonesta, Spain

Theme 3: *History of mathematics for future teachers, in a nutshell*

Alan Bernard, France

Theme 4: *The Local and Global History of Early Modern Mathematics: Material Culture as a Key*

Samuel Guessner, Portugal

Theme 5: *Mathematics Education in Secondary Schools for Boys in 19th-Century Poland: Schools with Polish, Prussian, Austrian, and Russian Curricula*

Karolina Karpińska, Poland

Theme 6: *Indian mathematics, a source for a globalized history of mathematics*

Jean Michel Delire, Belgium

Theme 7: *Mathematics in Early Modern Portugal: The challenge of the sea*

Henrique Leitão, Portugal

Special Lecture: *European Summer Universities (1993-2025): more than thirty years of sharing*

Évelyne Barbin, France

More information here: https://esu10.sciencesconf.org/data/pages/plenary.pdf

4. Activities during ESU-10

All activities should refer to the ESU-10 *main themes*. Its scientific program will be structured along these themes, consisting of a few *plenary lectures* and *panels*, as well as, parallel sessions of *oral presentations* and *short communications*/*posters* for participants who want to speak about their own experience, or research. A major part of the programme, however, consists of *workshops*.

- There will be at most one *plenary lecture* per theme, normally conceived as an introductory lecture for related workshops.
- In the *panels*, participants will work together, well in advance, so that, during the panel session, there is a real discussion among them and/or with the panel coordinator.
- *Workshops* consist in studying a specific subject and having a follow-up discussion. The workshop organizer prepares, presents and distributes the historical/epistemological or pedagogical/didactical material, which motivates and orients the exchange of ideas and the discussion among the

participants. Participants read and work on the basis of this material (e.g. original historical texts, didactical material, students' worksheets, etc.). Workshops will be scheduled in parallel sessions and will vary in duration (1.5 hours for workshops based on didactical-pedagogical material; 2 hours for workshops based on historical and/or epistemological material).

- *Oral presentations* will be allocated a 30-minute time slot each (25 minutes for presentation and 5 minutes for discussion), scheduled in parallel sessions. It is an activity in the spirit of a conventional research conference.
- *Poster presentations* will be held in 10-minutes *short oral communications*.
- *Exhibitions* of books and other didactical material will also be possible.

5. Target population

Participants are expected to be mostly (elementary or secondary school) teachers who wish to gain new ideas on how they can integrate the history of mathematics into their teaching. However, there will be also university teachers and students interested in the integration of the history and epistemology of mathematics into mathematics education, as well as, historians of mathematics, who may give a limited number of lectures and workshops to inform others about recent developments in their domain, and mathematicians with an interest in the relation between mathematics, its history and epistemology, and its role at present and in the past.

6. Time and place

The ESU-10 will take place from **Monday 20** to **Friday 24 July 2026** at the Departamento de Matemática da Universidade de Aveiro (https://www.ua.pt/pt/dmat/quem_somos).

7. Official Languages

The official languages of ESU-10 are English, Portuguese and French. More specifically:

- All *plenary talks* and *panel discussions* will be in *English*.
- It is preferable to organize *Workshops* in English. Nevertheless, workshop organizers who intend to organize their workshop in another language are advised and encouraged to prepare copies in English of the material to be distributed to the participants (e.g. slides, worksheets, etc.). This will certainly increase participation, as well as, facilitate communication among participants.
- *Oral presentations* can be delivered in any of the official languages. However, for presentations not in English, presenters will be asked to use **two sets of slides**; one set in the language they are going to give their presentation, and **one set in English**.

8. Submission of proposals

07 January 2026: **second deadline** for submitting **Abstracts** of proposals for all types of activities.

15 March 2026: Notification of acceptance or not of the submitted proposals on this new deadline.

Important: Please, use the Activity Application Form of the website (https://esu10.sciencesconf.org/resource/page/id/9)

The members of the *International Scientific Program Committee* (ISPC) will review the submitted abstracts. At this stage, acceptance of a proposal means that the proposed activity will be included in the ESU-10 Scientific Programme. However, this does not imply that a full text based on this activity will automatically be included in the ESU-10 Proceedings, which are going to be published after ESU-10. Full texts will be further reviewed by members of the SPC at the usual international standards. For more details, see *Proceedings,* §10 below.

9. The web site

Making known ESU-10 worldwide, is a major task to be realized by the ISPC. To this end, a web site is operating at **https://esu10.sciencesconf.org**

This site will be an efficient tool for providing updated information, allowing for online registration, submission of proposals and full texts, supporting the reviewing process, etc. Other important information will be also updated on the website like, for instance, the fees (https://esu10.sciencesconf.org/resource/page/id/4).

10. Proceedings

Publishing the Proceedings of the ESU is also a major task. In fact, Proceedings of the previous ESU have become standard references in this area (cf. reference in footnote 1).

The Proceedings will be published **after** ESU-10, so that authors are given the opportunity to enrich their text as a result of the feedback they will gain during ESU-10.

Each submitted full text for a workshop, or an oral presentation will be reviewed by at least one member of the ISPC at the usual international standards.

More details on the deadline for submitting full texts, their size, the format guidelines and the expected date by which the proceedings will be available and sent to all registered participants, will be announced in due course from the ESU-10 website **https://esu10.sciencesconf.org**

The official email is dmat-esu10@ua.pt

11. The (international) *Scientific Program Committee* (ISPC)

Marc Moyon, University of Limoges, France and University of Aveiro, Portugal (chair)
Hélder Pinto, Piaget Institute & University of Aveiro, Portugal (chair)
Évelyne Barbin, University of Nantes, France (co-chair)
Michael N. Fried, Ben-Gurion University of the Negev, Israel (co-chair)
Snezana Lawrence, Independent scholar, Great Britain (co-chair)

Abdellah El Idrissi (Morocco)
Abraham Arcavi (Israel)
Adriano Demattè (Italy)
Antonio M. Oller-Marcén (Spain)
Bjørn Smestad (Norway)
Constantinos Tzanakis (Greece)
David Guillemette (Canada)
David Pengelley (USA)
Ewa Lakoma (Poland)
Frédéric Métin (France)
Fulvia Furinghetti (Italy)
Gail FitzSimons (Australia)
Hans Niels Jahnke (Germany)
Helena Durnová (Czech Republic)
Iran Abreu Mendes (Brazil)
Janet Barnett (USA)
Jean-Michel Delire (Belgium)
Johanna Pejlare (Sweden)
Luis Puig (Spain)
Marta Menghini (Italy)
Mª Rosa Massa Esteve (Spain)
Po-Hung Liu (Taiwan)

Renaud Chorlay (France)
Teresa Costa Clain (Portugal)
Tinne Hoff Kjeldsen (Denmark)
Wann-Sheng Horng (Taiwan)
Yi-Wen Su (Taiwan)

12. The *Local Organizing Committee* (LOC)

Nuno Bastos (I. P. Viseu)
Cecília Costa (UTAD)
Luís Descalço (U. Aveiro)
Helmuth Malonek (U. Aveiro)
Ana Patrícia Martins (I. P. Viseu)
Paula Oliveira (U. Aveiro)
Sónia Pais (I. P. Leiria)
Helder Pinto (I. Piaget)
Joaquim Pinto (APM)
Dina Tavares (I. P. Leiria)

13. For further information, contact

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Snezana Lawrence	Independent scholar	UK	snezana@mathsisgoodforyou.com

official email: dmat-esu10@ua.pt

This event is supported by

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THE NINTH INTERNATIONAL CONFERENCE ON THE HISTORY OF MATHEMATICS EDUCATION (ICHME-9)
First announcement and call for papers

International organizing committee
Kristín Bjarnadottir, School of Education, University of Iceland.
Fulvia Furinghetti, Department of Mathematics, University of Genoa (Italy).
Alexander Karp, Teachers College, Columbia University (USA).
Antonio M. Oller Marcén, Department of Mathematics – IUMA, University of Zaragoza.
Johan Prytz, Department of Education, Uppsala University (Sweden).
Gert Schubring, Institut für Didaktik der Mathematik, Bielefeld University. (Germany), visiting professor at the Universidade Federal do Rio de Janeiro (Brazil).

Local organizing committee
Antonio M. Oller Marcén, Department of Mathematics – IUMA, University of Zaragoza.
Mónica Arnal-Palacián, Department of Mathematics – IUMA, University of Zaragoza.
José M. Muñoz-Escolano, Department of Mathematics – IUMA, University of Zaragoza.

Contact information
Website of the conference: http://eventos.unizar.es/go/ICHME9
E-mail address: ichme9@gmail.com

Presentation
According to Schubring[2] "Research on the history of teaching and learning mathematics constitutes a field, on one hand, with a considerable tradition and, on the other hand, with only recent rapid developments." The origins of this field of study can be traced back to the mid-19th century, but the first attempts to generalize studies date from the period immediately prior to World War I. It can be said that since the 1980s, there has been a continuous and growing body of research in this area. Thus, the HPM study-group (History and Pedagogy of Mathematics) was created at the 1972 ICME conference; and it has been organizing satellite conferences to the ICME meetings since 1984. Also, in more recent times, there are specific working groups at important international conferences such as ICME (since 2004) or CERME (since 2009).

[2] Gert Schubring, «On Historiography of Teaching and Learning Mathematics», in *Handbook on the History of Mathematics Education*, eds. Alexander Karp and Gert. Schubring (New York: Springer, 2014), 3.

The International Conference on the History of Mathematics Education (ICHME) is the only international conference entirely devoted to the history of mathematics education. The first ICHME was held in Iceland (2009). Since that first gathering, seven more meetings have been organized in Portugal (2011), Sweden (2013), Italy (2015), the Netherlands (2017), France (2019), Germany (2022), and Poland (2024). Information about some of these previous conferences can be found here: https://hpm.sites.uu.nl/ichme/

The purpose of ICHME-9, which will be held in 2026 in Zaragoza, Spain, is to organize a discussion of the latest research in the History of Mathematics Education, to analyze new discoveries, new research methods, and to interpret and evaluate sources. The conference aims to help transcend national borders, creating a broad international panorama of what has happened in the history of mathematics education. It aims to bring together representatives of various scientific disciplines who study and use the history of mathematics education in various contexts, including historians of mathematics, historians of education, mathematicians and mathematics teachers.

The list of topics of this conference includes, but is not limited to, the following:

- Methodology of research in the History of Mathematics Education.
- Transmission and reception of new educational ideas in Mathematics Education.
- The History of Mathematics Education and the History of Mathematics: Connections and Mutual Influences.
- Actors and contributors in Mathematics Education.
- Development of Mathematics Education in specific countries.
- Development and changes in mathematical content within a curriculum and in the form of its presentation.
- Mathematics Education of groups historically underserved in education.
- Mathematics teacher education.
- Mathematics textbooks and other educational resources.
- Reforms in Mathematics Education.

Venue

The Ninth International Conference on the History of Mathematics Education will take place at the University of Zaragoza, specifically on the "Campus San Francisco". More details will be given in upcoming announcements and at the conference website.

Abstract submission guidelines:

Abstracts of a maximum of 500 words (including bibliography) should be submitted to the following e-mail address: ICHME9@gmail.com before February 28, 2026.

The abstract template can be found here:
https://eventos.unizar.es/123517/files/9th-international-conference-on-the-history-of-mathematics-education.html

Please, consider the following information before submitting your abstract:

- The submission has to include the title of the presentation, the name of the authors (with their affiliations and e-mail addresses and clearly indicating who will be the presenting author), an abstract, and selected bibliography.
- The abstract should clearly show how and why the proposed presentation constitutes a significant contribution to the research on the field of History of Mathematics Education.
- Only one submission as presenting author is allowed per participant.
- A participant can be the author of at most two proposals.

There will be three forms of active participation in the conference: long presentations (40 min.), short presentations (20 min.) and posters. The review process will determine in which activity a given submission will be presented.

After the conference the publication of the proceedings is planned. Papers will be peer-reviewed and the presentation at the conference does not grant publication in the proceedings.

Registration and conference fee

Registration will take place via the conference website (see "registration"). It has to be completed between April 1 and July 31, 2026. Further instructions will be given in due time at the ICHME-9 website.

Until May 15, 2026, the fee will be 230 Euros, after that date the fee will be 250 Euros. The fees include snacks and drinks during the breaks, the publication of the Proceedings and participation in the social activities.

The bank account for the payment of the fees will be announced later at our website.

Some practical information

Accommodation and travel are not included, and they have to be organized by the participants. If you need any help, please do not hesitate to contact us. A list of hotels (slightly outdated, but still useful) can be found here:

https://www.zaragoza.es/cont/paginas/turismo/pdf/hoteles.pdf

Zaragoza and its surroundings offer many interesting things to do and see. We invite you to extend your visit and enjoy our city. On this website you will find useful tourist information:

https://www.zaragoza.es/sede/portal/turismo/?locale=en

Second Conference on Historical Studies in Mathematics Education

The second Conference on Historical Studies in Mathematics Education, ConEHISME II for its acronym in Spanish, will take place virtually on February 6 and 7, 2026. This conference, which is a free meeting, aims to provide a platform for reflection, dialogue and discussion on the foundations, methods, results and applications of historical studies from a Mathematics Education research perspective. The conference is intended for mathematics teachers at all levels of instruction, active or trainee researchers in Mathematics Education, and individuals interested in the subject matter of the event.

This year's conference will focus on theoretical and methodological approaches, as well as the results of research studies on historical sources in Mathematics Education, with a particular focus on two research areas.

1.- History of mathematics. This area of research involves sharing, reflecting upon and working on studies of historical sources related to mathematics, personal experiences and other sources, with a focus on the seminal construction of mathematical notions.

2.- History of mathematics education. This area will focus on the introduction and development of mathematical concepts within educational systems, based on studies of historical sources.

Detailed information (in Spanish) about deadlines and modes of participation can be found on the conference website: https://ehismatedu.wordpress.com/conehisme/

Epistemological Obstacles and Learning: When History Teaches Us How to Teach

In the spring of 2025, the Associazione Italiana di Ricerca in Didattica della Matematica (AIRDM) offered a course in the epistemology of mathematics, structured in several modules and aimed at PhD students and early-career researchers working in the fields of mathematics education and the history of mathematics. Entirely online, the course fostered dialogue between different approaches and perspectives, strengthening the link between theoretical research and educational practice.

The second module was led by Professors Miglena Asenova (University of Milan) and Ferdinando Arzarello (University of Turin) and it was focused on the relationship between the history and epistemology of mathematics. Through the analysis of selected entries from the *Enciclopedia Treccani* curated by Federigo Enriques, it was shown how the history of mathematics can serve as a powerful pedagogical tool: not only does it help in understanding the evolutionary nature of mathematical knowledge, but it also offers interpretive keys for identifying and addressing the conceptual obstacles that students may encounter in the learning process.

Epistemological reflection was enriched through engagement with the ideas of Gaston Bachelard and Guy Brousseau, who, in different ways, emphasized the need to overcome epistemological obstacles through moments of "rupture" or conceptual restructuring. These obstacles, deeply rooted in culture, history, and naïve conceptions of knowledge, can only be tackled pedagogically through a conscious educational approach that takes into account both the cognitive and historical dimensions of learning.

The module adopted an active and cooperative teaching methodology, involving participants in small-group analysis and discussion activities. The autonomous selection of the entries to be explored encouraged the emergence of shared interests and stimulated critical reflection. Working with encyclopedic texts made it possible to appreciate the educational value of a historical-epistemological approach—one capable of promoting a deeper and more nuanced understanding of mathematical concepts by revealing their cultural, philosophical, and social dimensions.

In this light, the module made a significant contribution to the pedagogical training of future researchers and educators, promoting a vision of mathematics as a living discipline—one that is constructed over time and open to reflection. Not coincidentally, the experience also gave rise to practical teaching applications: three course participants—Anna Amirante, Silvia Cerasaro, and Francesca Coppa—developed an activity for high school students (third year), based on a similar historical-epistemological methodology (analyzing selected entries). This activity was later presented as a workshop idea for high school teachers during the annual seminar of the UMI group for the Liceo Matematico, held in Fisciano (SA) from September 10 to 12, 2025.

The work carried out demonstrated how the integration of epistemology, history, and education can offer effective pedagogical tools to enhance mathematics teaching, making it more meaningful, critical, and attuned to students' real difficulties.

Therefore, the second module of the AIRDM course highlighted the richness of the dialogue between epistemology, the history of mathematics, and education—not only on a theoretical level, but also in terms of concrete pedagogical outcomes. Including a historical perspective in teacher education helps to restore the human and cultural dimension of mathematics, showing students (and future teachers) that concepts are not born out of nowhere, but are the result of a long, complex, and often non-linear evolution.

From a didactic standpoint, this awareness allows educators to anticipate and interpret the difficulties students face, valuing error as evidence of a meaningful cognitive process—often mirroring the historical paths followed by scientists themselves. History thus becomes a pedagogical key, capable of shedding light on conceptual knots and fostering deeper, more reflective learning.

The module's methodology—based on active involvement, collaborative work, and shared reflection—also served as a virtuous example of training in both research and teaching, in which participants were not passive recipients of content, but protagonists in a dialogic and transformative learning experience. The analysis of the *Encyclopedia* entries offered an opportunity to personally experiment with an integrated approach to mathematics, where disciplinary content, epistemological perspectives, and teaching choices nourish one another.

The spontaneous emergence of educational initiatives derived from the course—such as the one designed by the three participants for the Liceo Matematico—demonstrates how theoretical reflection can be translated into innovative and sustainable educational proposals, capable of making a tangible impact on school practice and teacher education.

Ultimately, the module stands not only as an academic deepening opportunity but also as a replicable training model—valuable for rethinking the education of teachers and researchers through an interdisciplinary, critical, and historically grounded lens. A meaningful contribution, therefore, to the development of mathematics education that is conscious, culturally rooted, and pedagogically effective.

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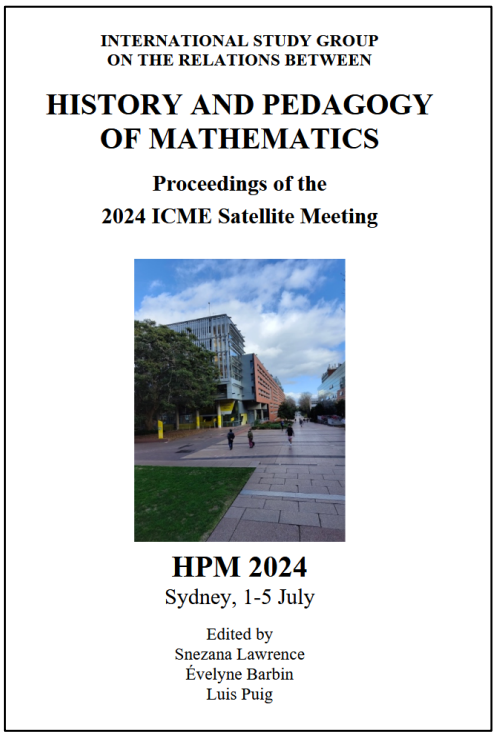
HPM 2024 Proceedings

The eleventh Congress of the International Group on the Relations between History and Pedagogy of Mathematics (HPM) took place at the University of New South Wales, Sydney, from Monday, July 1 to Friday, July 5, 2024. The theme of HPM 2024 was "Mathematics of Australia and the Indo-Pacific." While this theme served as a main focus for the meeting, the program and activities were structured around the following seven general topics:

1. Theoretical and/or conceptual frameworks for integrating history in mathematics education.
2. History and epistemology in students' and teachers' mathematics education: Classroom experiments and teaching materials.
3. Original sources in the classroom and their educational effects.
4. Mathematics and its relation to science, technology, and the arts: Historical issues and interdisciplinary teaching and learning.
5. Cultures and history of mathematics fruitfully interwoven.
6. Topics in the history of mathematics education.
7. History of mathematics in Australia and the Indo-Pacific.



Thanks to the hard work of the editors, Snezana Lawrence, Évelyne Barbin, and Luis Puig, the proceedings of this conference are freely available here. We hope you enjoy them.

Have you read these?

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Compiled by Gail FitzSimons

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No.	Deadline for material	Sent to distributors
121	12 February 2026	March 2026
122	12 June 2026	July 2026
123	12 October 2026	November 2026

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A note from the Editors

The Newsletter of HPM is primarily a tool for passing along information about forthcoming events, recent activities and publications, and current work and research in the broad field of history and pedagogy of mathematics. The Newsletter also publishes brief articles which the editors think may be of interest to HPM members. Contributions from readers are welcome on the understanding that they may be shortened and edited to suit the compass of this publication.