



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

<http://www.clab.edc.uoc.gr/hpm/>

These and other news of the HPM group are also available on the website

<http://grouphpm.wordpress.com/>

(the online and on time version of this newsletter).

NOTE FROM THE CHAIR

Dear friends,

Just a couple of things in this Newsletter form me.

As you will see from the next article how successful and fruitful the ESU9 has been that took place in Salerno in July this year. The conference was organised, as always, immaculately well, and we had been also able to learn more about the beautiful city of Salerno and the teacher networks and mathematics education projects that are being undertaken there.

In the next Newsletter we will have more news about the next HPM Satellite Meeting.

In the meantime, we are undertaking re-designing of the HPM website. Currently we have two sites – one that hosts the Newsletter, and the other with all our details, electronic publications, and proceedings of our conferences and other meetings. This will be now hosted on one website. The website project group, led by Desiree Agterberg, includes also Costas Tzanakis, Bjorn Smestad, Helder Pinto, Ysette Weiss and myself. If you would like to contribute please let us know – there will be a lot of work to complete the new website by the spring of 2023.

Finally, I wish you all the very best for the impending holiday season around the world.

Snezana Lawrence

ESU 9

My First Participation in ESU

I had no idea how hot the weather could be in Italy. Heat that I don't even feel in the summers in Rio de Janeiro. Europe was going through one of its most severe heat waves in recent times, but that doesn't seem to have affected the happy and festive atmosphere in which the ESU-9 took place.

This was my first participation in ESU. I am part of a group of Brazilian researchers called CHEMat, which stands for Collective of History in Mathematics Teaching. I came to ESU-9 to present some results of our research and to learn about the work of other researchers.

My first impression of the event was very positive. Most of the participants were already present from the first day and remained so until the last day. The engagement of participants in attending to all activities was remarkable. The alternating program between plenary sessions, workshops and oral presentations seemed to me to be the key to the event's success. While in some sessions we have a more passive posture listening to a speaker present their research, in the workshops we have to step out of our comfort zone and solve a historical problem. This diversity in stimuli makes the event dynamic and enriching.

The biggest drama in an event like this is having to choose which activity to attend, while giving up 3 or 4 other workshops or presentations happening at the same time.

Of course, not all the choices were as good as I would have liked. However, most of them far surpassed any expectations I might have had. I was very impressed with the workshop of the Italians Davide Crippa and Pietro Milici and their curve construction tools; with Desiree Agterberg's historical riddles that everyone was bent on deciphering; and how not to mention the extraordinary experience of being able to rehearse and act in a play by Gavin Hitchcock.

I can't help but comment on the other activities. The performance of the Italians in the play *Cracking the Cube* was joyful and spontaneous. The conference dinner on the coast of Salerno was exceptional. And the afternoon of tours around the region was a good opportunity to get out of the history of mathematics and get to know a little about the history of Italy.

In addition to being captivated by the activities, I also had the opportunity to meet other educators and researchers. It was amazing to discover that people I greatly admire, like Massa-Esteve and Michael Fried, are also welcoming people and interested in getting to know your own work. During the event I met educators from the most diverse regions. I had wonderful exchanges with French, Spanish, Norwegian and even Brazilian colleagues. I ended up getting closer to my Portuguese fellows, who were very friendly and welcoming. Our bond was so natural that I had the impression that sometimes I had been mistaken for Portuguese. (I won't forget our epic quest for a fresh cup of coffee, while the university cafeterias were all closed.)

I am very happy to know that there is a community interested in the integration between history and mathematics teaching that is so welcoming. In addition to returning home with many fresh ideas, interested in researching the works presented there and with the desire to adapt some of the workshops with my students, I return home mainly with memories and affections from that 5 days that I will carry in my heart forever.

Marcello Amadeo
UNIRIO, Rio de Janeiro, Brasil

ESU 9 (Salerno 2022)
Photos to remember





Photos sent by
Roberto Capone and Marta Menghini

MAA CONVERGENCE

Teach Math via Images, Historical Theorems, and More from Convergence

Since 2004, *MAA Convergence* has been both an online journal on the history of mathematics and its use in teaching, and an ever-expanding collection of online resources to help its readers teach mathematics using its history. We highlight here some of our newest articles offering a variety of resources for use in your classroom.

Associate editor Ximena Catepillán has continued her effort to translate *Convergence* articles into Spanish with “[El Gabinete de Maravillas Matemáticas de Pantas: Imágenes e Historia de las Matemáticas.](#)” This article, written by Frank Swetz in 2015 under the title “[Pantas’ Cabinet of Mathematical Wonders: Images and the History of Mathematics.](#)” shares great advice and resources to help instructors get started with the exciting approach of using images of historical texts and objects to engage students both in and out of the classroom.

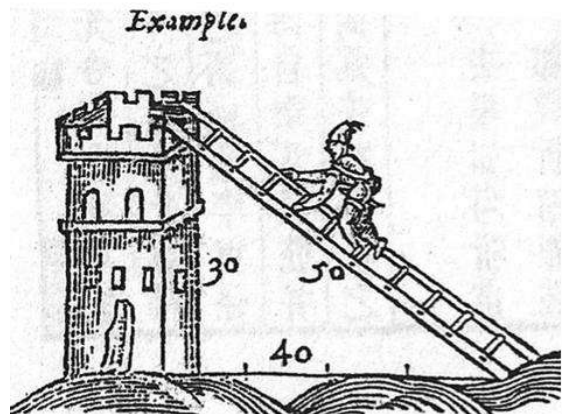


Imagen del [Camino al Conocimiento](#) de Robert Recorde de 1551, que ilustra una aplicación del Teorema de Pitágoras (Image from Robert Recorde’s 1551 [Pathway to Knowledge](#), illustrating an application of the Pythagorean Theorem).

Manuel Medrano has added a tour of “[Andean Khipus](#)” to our ongoing series, “[Keys to Mathematical Treasure Chests.](#)” which offers examples of how consulting multiple online databases of mathematical objects can unlock the collections that they preserve and enrich academic research into or classroom explorations of specific categories of mathematical objects. The collection of mini-Primary Source Projects from the TRIUMPHS team, “[A Series of Mini-projects from TRansforming Instruction in Undergraduate Mathematics via Primary Historical Sources.](#)” also offers one new entry:

- “[Solving Linear Higher Order Differential Equations with Euler and Johann Bernoulli: A Mini-Primary Source Project for Differential Equations Students.](#)” by Adam E. Parker.



Inka-style khipu VA 16148 in the Ethnologisches Museum, Berlin
(© Ethnologisches Museum, Staatliche Museen zu Berlin).

Additionally, the editors have discussed how two of *Convergence's* older articles continue to provide suggestions for teaching mathematics through its history in a post on the MAA MathValues blog: "[Radio Speeches, Traffic Patterns, and Teaching Mathematics with Its History](#)." A photo gallery of cross-cultural images depicting the Pythagorean Theorem and its various proofs has garnered hundreds of views and engagements on multiple social media outlets, including the [Canadian Society for History and Philosophy of Mathematics](#). Images were utilized from the following *Convergence* Mathematical Treasures:

- [Zhoubi suanjing](#) (*Arithmetical Classic of the Gnomon and the Circular Paths of Heaven*, 1603, 100 BCE original).
- [Al-Tusi's Euclid's Elements](#) (1876, 13th-century original).
- [Early 14th-Century Flemish Euclid's Elements](#) (ca 1300–1315).
- [Qāḍī Zāda Mūsā ibn Muḥammad's Commentary on the Fundamental Theorems](#) (1413).
- [Līlāvātī of Bhāskara II](#) (1650, 12th-century original).
- [Crockett Johnson's Mathematical Paintings](#) (1965–1968).

Find even more images of significant books, manuscripts, and objects in the

history of mathematics in the [author index of *Convergence's* Mathematical Treasures](#) as well as images of historical mathematicians in our [Portrait Gallery](#).



Qāḍī Zāda Mūsā ibn Muḥammad's *Commentary on the Fundamental Theorems* (1413).

See all of these articles and more at *MAA Convergence*:
<http://www.maa.org/press/periodicals/convergence>.

Interested in contributing or need help getting your ideas ready for submission? We'd love to hear from you at convergence@maa.org!

Convergence publishes expository articles on the history of topics in the grades 8–16 mathematics curriculum; translations of primary sources suitable for classroom use; classroom activities, projects, or modules for using history to teach mathematics; and classroom testimonials after applications of such activities, projects, or modules. 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.

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Independent Scholar, USA

Janet Barnett,
Colorado State University – Pueblo, USA
Editors, *MAA Convergence*

Have you read these?



Bellé, R. & Sisana, B. (2022). Galileo Galilei and the centers of gravity of solids: a reconstruction based on a newly discovered version of the conical frustum contained in manuscript UCLA 170/624. *Archive for History of Exact Sciences*, 76(5), 471–511.

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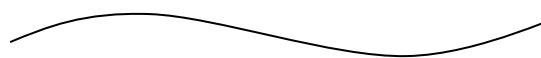
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ZDM - Mathematics Education

Vol. 54, no7, 2022

Exploring the significance of the history of mathematics in mathematics education

Editors: Renaud Chorlay, Kathleen
Michelle Clark and Constantinos Tzanakis

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HPM Book Reviews

Compiled by Gail FitzSimons

Please send references
to gfi@unimelb.edu.au

OPEN ACCESS

Kent, Deborah (2022). Book review:
[Einstein, Eddington, e o/and the Eclipse:
Impressões de Viagem/Travel
Impressions](#). *British Journal for the
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doi:10.1080/26375451.2022.2056968



Announcements of Events



Forthcoming BSHM Meetings

The British Society for the
History of Mathematics

<http://www.bsham.ac.uk/events>

1. AGM and Christmas Meeting

3 December, 2022

Online

Confirmed Speakers:

- Kim Plofker (Union College, Schenectady)
- Christopher Stray (Swansea) on JMF Wright
- Sepideh Alassi (Basel)
- Clare Moriarty (Trinity College Dublin), on Oliver Byrne
- Jörg F. Wagner & Maria Niklaus (Stuttgart) *From Bohnenberger's Machine via Aircraft Course Controls to Inertial Navigation*
- Christopher Hollings (Oxford) *Triangulating Ancient Egyptian Mathematics*

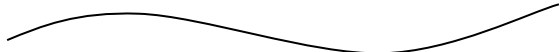
2. Research in Progress

25 February, 2023

Oxford

Research in Progress is an annual meeting of the British Society for the History of Mathematics. It provides an opportunity for research students in any area of the history of mathematics to present their work to a friendly and supportive audience.

Keynote speaker, Isobel Falconer (St Andrews)



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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 they think may be of interest. Contributions from readers are welcome on the understanding that they may be shortened and edited to suit the compass of this publication.