



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

No. 91

March 2016

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).

A MESSAGE FROM THE CHAIR OF HPM

Dear colleagues,

In this edition of the HPM Newsletter, I would like to provide an update on our forthcoming **2016 HPM Satellite Meeting** of the *International Congress on Mathematical Education (ICME)*.

As you might know, our **Satellite Meeting** will take place in Montpellier, from July 18 to July 22, 2016.

The host of the Satellite Meeting is the Faculty of Education of the Université de Montpellier:

2 place Marcel Godechot - BP 4152
34092 MONTPELLIER CEDEX 5

We are pleased to inform you that **registration is now open**.

If you want to take advantage of the early registration rate, please register before April 29, 2016.

A **public conference** has been added to our scientific program.

The subject of the conference is mathematician Joseph Diaz Gergonne who was the editor of what came to be one of the most important mathematical journals of his time—*Annales de mathématiques pures et appliquées*, founded in 1810. The public conference will be given by Professor Christian Gerini. Commenting on the 19th century mathematician, Gerini notes that “Gergonne was a leading representative of the relationship between mathematics, history and pedagogy.”

On the social side of the **2016 HPM Satellite Meeting**, you will find on the conference [web page](http://hpm2016.sciencesconf.org) (<http://hpm2016.sciencesconf.org>) information about several excursions and a gala dinner.



The HPME 2016 Scientific Committee and the Local Committee are working hard to ensure a conference of the best scientific quality in a Mediterranean environment that is steeped in history.

I hope to see you all in Montpellier this summer.

Luis Radford

HPM Chair

Université Laurentienne, Canada

Univ. Federal do Rio Grande do Norte, Brasil

Circulation: Mathematics, History, Education

26 – 27 May, 2016

Nantes, France

Seminar in Honor of Évelyne Barbin

We are pleased to announce this seminar in honor of **Évelyne Barbin**, which will take place at the **University of Nantes** (France).

Registration, as well as all information for the event, including the conference program can be found on the dedicated website:

<http://www.math.sciences.univ-nantes.fr/CMHE2016/>.

Speakers during the seminar include:

- Dominique Bénard (Université du Maine)
- François de Gandt (Université de Lille III)
- Tinne Hoff Kjeldsen (University of Copenhagen, Denmark)
- René Guitart (Université Paris Diderot)
- Yannick Marec (Université de Rouen)
- Anne-Marie Marmier (Université de Lille)
- David Rabouin (Université Paris-Diderot)
- Léo Rogers (Université d'Oxford)
- Dominique Tournes (Université de la Réunion)
- Norbert Verdier (Université de Paris Sud)

We hope to see you there!

The organizing committee:

*G. Moussard,
J. Auvinet,
X. Saint Raymond
(LMJL)*

Chers collègues:

Nous avons le plaisir de vous inviter aux **Journées scientifiques en l'honneur d'Évelyne Barbin** qui auront pour thème: **Circulation: Mathématiques, histoire, enseignement.**

Elles se tiendront du **26 au 27 mai 2016, à l'Université de Nantes** (Amphi Pasteur, UFR Sciences et Techniques, campus Lombarderie).

Vous pouvez d'ores et déjà vous y inscrire sur le site dédié:

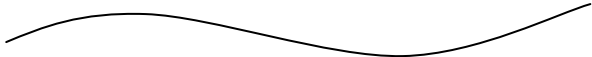
<http://www.math.sciences.univ-nantes.fr/CMHE2016/>

où vous trouverez toutes les informations nécessaires, ainsi que le programme des conférences.

En espérant vous y voir nombreux.

Le comité d'organisation:

*G. Moussard,
J. Auvinet,
X. Saint Raymond
(LMJL)*



**ICME 13 TSG 25
History of Mathematics in
Mathematics Education:
Recent developments**

**24 – 31 July, 2016
Hamburg, Germany**

One of the *Topic Study Groups* (TSG) at the forthcoming ICME 13 (Hamburg, Germany, 24-31/7/2016) is TSG 25: *The Role of History of Mathematics in Mathematics Education.*

Its Organizing Team (OT) has performed a survey on the developments in the HPM domain since 2000, the year of publication of *History in Mathematics Education: The ICMI Study*, edited by J. Fauvel & J. van Maanen (Kluwer 2000). This volume has been a highly collective work and a landmark in the area. Since its publication, the HPM domain has expanded considerably and intensive research activity has been realized worldwide that led to a great deal of thoughtful publications both on theoretical issues and empirical investigations.

Nevertheless, a comprehensive survey is still lacking. Therefore, the survey carried out by the OT of TSG 25 aims to contribute to filling the gap, at the same time providing a useful tool to anyone with interest in this domain and wants to become informed on the main issues and to have a concise guide of the work done in this area.

With focus on the period after the publication of the above *ICMI Study Volume*, this survey attempts to provide concise annotated reference to existing work in this area, related to the TSG 25 main themes, namely:

1. Theoretical and/or conceptual frameworks for integrating history in mathematics education;
2. History and epistemology implemented in Mathematics Education, considered from either the cognitive or/and affective points of view:
 - (a) Classroom experiments at school, the university and teacher pre- & in-service education;
 - (b) Teaching material: textbooks, resource material of any kind (written documents, guidelines, readers, annotated bibliographical surveys, audiovisual material, relevant websites/web pages, etc).
3. Surveys on:
 - (a) Research on the History of Mathematics in Mathematics Education;
 - (b) The History of Mathematics as it appears in curriculum and/or textbooks.
4. Original sources in the classroom, and their educational effects;
5. History and epistemology as a tool for an interdisciplinary approach in the teaching and learning of mathematics and the sciences by unfolding their fruitful interrelations; and
6. Cultures and mathematics fruitfully interwoven.

The structure of the survey runs roughly as follows:

Section 1 explains its rationale and formulates the key issues explicitly addressed in and/or implicitly underlying the work done in this area:

- *Which history is suitable, pertinent, and relevant to Mathematics Education?*
- *Which role can History of Mathematics play in Mathematics Education?*
- *To what extent has History of Mathematics been integrated in Mathematics Education (curricula, textbooks, educational aids/resource material, teacher education)?*
- *How can this role be evaluated and assessed and to what extent does it contribute to the teaching and learning of mathematics?*

Section 2 gives a brief historical account of the development of the *HPM domain* with focus on the main activities in its context and their outcomes since 2000, a short presentation of journals and newsletters, and an outline with comments on the key issues mentioned above and references to the literature for details.

Section 3, constitutes the major part of the survey. It provides a sufficiently comprehensive bibliographical survey of the work done since 2000:

- Briefly annotated collective works (collective volumes, special issues of Mathematics Educational journals devoted to the HPM perspective, conference proceedings, resource material);
- Individual works on one or more of the above mentioned six main themes of

TSG 25 in the form of books & doctoral dissertations, papers in scientific journals, and individual chapters in collective volumes or conference proceedings.

For each reference there is explicit indication of the TSG 25 main themes to which it is mostly related. In addition, though the emphasis is on research results of an as broad as possible international interest, due attention is paid to nationally-oriented implementation of the *HPM perspective* as well. Even though several voluminous collective works exclusively devoted to the *HPM perspective* (e.g. some collective volumes or conference proceedings) contain several important contributions, the latter are not included in the bibliographical survey as separate items in order to keep this survey to a reasonable size. Instead, all collective works are annotated briefly.

Section 4 summarizes the main points of the survey, whereas, Section 5 contains all references given in section 2.

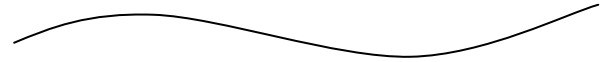
The survey can be accessed via the HPM website at <http://www.clab.edc.uoc.gr/HPM/HPMinME-TopicalStudy-18-2-16-NewsletterVersion.pdf>

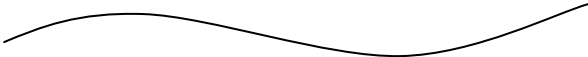
We emphasize, however, that this survey should be considered only as a **working document** to be kept updated both by the OT of TSG 25 and/or other members of the community, who will point out further references that are missing. Any comments, suggestions, amendments and further bibliographical references are most desirable and welcome!

The HPM domain is at a particularly interesting juncture right now, 15 years after the publication of the comprehensive ICMI study - with much and varied work taking place all over the globe. Therefore, this survey may be both a continuously updated useful tool and a key component for heralding a potentially new and interesting era of work to be done.

The Organizing Team of TSG 25 of
ICME 13

Kathleen Clark
Tinne Hoff Kjeldsen
Sebastian Schorcht
Constantinos Tzanakis
Xiaoqin Wang





ICMT2
II International Conference on
Mathematics Textbook
Research and Development

7 – 11 May, 2017
Rio de Janeiro, Brazil

(II Conferência Internacional em Pesquisa e Desenvolvimento de Livros Didáticos de Matemática)

Research focused on the analysis and development of textbooks (in conventional format or digital media) has recently gained great prominence in the international arena of research in mathematics education. This prominence is reflected, for example, in the *International Conference on School Mathematics Textbooks (ICSMT)*, held in Shanghai in 2011, and in the ZDM special issue (Volume 45, Issue 5, September 2013), on textbooks research in mathematics education.

Also reflecting this trend, the first *International Conference on Mathematics Textbook Research and Development* (ICMT-2014) took place at the University of Southampton (UK), from 29 to 31 July 2014. About 180 participants, from 30 different countries, attended ICMT-2014. ICMT-2014 proceedings are available on <http://eprints.soton.ac.uk/374809/>. Visit also ICMT-2014's official website on: <http://blog.soton.ac.uk/icmtrd2014/>.

It is our pleasure to announce the *II International Conference on Mathematics Textbook Research and Development / II Conferência Internacional em Pesquisa e Desenvolvimento de Livros Didáticos de Matemática* (ICMT2), to be held from 7 to 11 May 2017, at the Federal University of Rio de Janeiro (UFRJ) and at the Federal University of the State of Rio de Janeiro (UNIRIO), Brazil.

The organization of ICMT2 in Brazil is a collaborative initiative of the Brazilian Society of Mathematics Education (SBEM), the Brazilian Mathematical Society (SBM), the Brazilian Society of Applied and Computational Mathematics (SBMAC) and the Mathematical Space in Portuguese Language/ International Committee on Mathematics Instruction (EMeLP / ICMI).

ICMT2 will feature different activities, including plenary lectures, symposia, workshops, oral presentations, posters and special activities addressed to teachers. Accepted and presented papers will be published after a peer-review process in Proceedings following the Conference.

Conference themes:

- Textbook research (concepts, issues, methods, directions, etc.)
- Textbook analysis (characteristics, treatment of contents and/or pedagogy, etc.)
- Analysis of historical textbooks
- Textbook use (by teachers, by students, and/or by other parties)
- Textbooks and student achievement
- Textbook development (domain/competence analyses, teaching

trajectories, task design, format of presenting the "content" to the student, format of presenting the "content" to the teacher (teacher guides))

- Textbook policies (governmental educational policy about textbooks, distribution, market strategies)
- Evolution of textbooks in the light of new digital technologies (including integration of ICT tools and innovation, e-textbook)
- Other disciplines in mathematics textbooks & mathematics in textbooks of other disciplines
- Other major relevant issues about mathematics textbooks



Modalities of contributions, besides invited lectures:

- oral presentation (in English, 30 minute presentation; abstract 1 page incl. references)
- symposium (in English, 180 mins)¹
- workshop (in English, 120 mins)²
- workshop for teachers (in Portuguese, 120 mins)

¹ A symposium is organised by one or more researchers to discuss jointly, based on submitted papers, a specific issue of the thematic spectrum of the conference.

² A workshop is a kind of activity that allows participants to work (in small teams) around prepared documents, guided by specific questions.

- poster presentation (1 page abstract, in English, one time slot, 60 minutes)

In general, each applicant can submit at most two proposals (including oral presentations, workshops, etc.) with his/her name as first author.

Key dates:

- submission of proposal for a symposium: 15 August 2016
- information about acceptance of a symposium proposal: 15 September 2016
- submission of paper abstracts within symposia: 31 October 2016
- abstract submission for oral presentation, workshop and poster: 31 October 2016
- information about acceptance of such submissions: 15 December 2016
- registration fee: will be informed in the next Announcement
- registration deadline: 3 January 2017
- Conference: May, 7th to 11th, 2017

International Programme Committee (IPC):

- Rúbia Amaral (UNESP, Brazil) – **Secretary**
- Ubiratan d'Ambrosio (UNIAN, Brazil) – **Honorary President**
- Marcelo Borba (UNESP, Brazil)
- Rute Borba (Universidade Federal de Pernambuco, Brazil)
- Marcos Cherinda (Universidade Pedagógica de Moçambique)
- Lianghuo Fan (University of Southampton, UK) – **Co-chair**
- Victor Giraldo (Universidade Federal do Rio de Janeiro, Brazil) – **Local Chair**

- Patricio Herbst (University of Michigan, USA)
- Marja van den Heuvel-Panhuizen (Universiteit Utrecht, Netherlands)
- Abdellah El Idrissi (École Normale Supérieure de Marrakech, Morocco)
- Diana Jaramillo Quiceno (Universidad de Antioquia, Colombia)
- Cyril Julie (University of the Western Cape, South Africa)
- Gabriele Kaiser (Universität Hamburg, Germany)
- Alexander Karp (Teachers College, Columbia University, USA)
- Jeremy Kilpatrick (University of Georgia, USA)
- Jian Liu (Beijing Normal University, China)
- Eizo Nagasaki (National Institute for Educational Policy Research, Japan)
- Michael Otte (UNIAN, Brazil)
- Johan Prytz (Uppsala Universitet, Sweden)
- Angel Ruiz (Universidad de Costa Rica, Costa Rica)
- Kenneth Ruthven (University of Cambridge, UK)
- Gert Schubring (UFRJ, Brazil/Universität Bielefeld, Germany) – **Chair**

- Verônica Gitirana (UFPE)
- Carmen Mathias (UFSM)
- João Frederico Meyer (UNICAMP)
- João Bosco Pitombeira (PUC-Rio)
- Cydara Ripoll (UFRGS)
- Walcy Santos (UFRJ)
- Fábio Simas (UNIRIO)
- Ralph Teixeira (UFF)

Further Information:

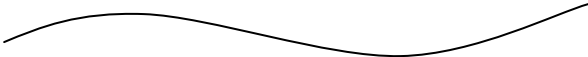
www.im.ufrj.br/~ictm2

icmt2@im.ufrj.br

The conference is organized by the Federal University of Rio de Janeiro (Universidade Federal do Rio de Janeiro, UFRJ), the State University of São Paulo (Universidade Estadual Paulista, UNESP), the Federal University of Pernambuco (UFPE) and the Federal University of the State of Rio de Janeiro (Universidade Federal do Estado do Rio de Janeiro, UNIRIO). It is supported by the Brazilian Society of Mathematics (SBM), the Brazilian Mathematics Education Society (SBEM), and the Brazilian Society of Applied and Computational Mathematics.

Local Organization Committee (LOC):

- Lourdes Werle de Almeida (UEL)
- Rúbia Amaral (UNESP) – **Co-chair**
- Franck Bellemain (UFPE)
- Marilena Bittar (UFMS)
- Victor Giraldo (UFRJ) – **Chair**



***Educational Implications of
the History and Philosophy of
Science and Mathematics
(PhD course)***

**19 – 23 September 2016
Copenhagen, Denmark**

This international doctoral course will focus on the utilization of historical and philosophical scholarship to inform science and mathematics education.

Among the course lecturers are Michael Matthews (founding editor of Science & Education), Peter Heering (Past President IHPST), Tinne Hoff Kjeldsen (Didactics and History of Mathematics), Helge Kragh (History of Physics) and Jesper Lützen (History of Mathematics).

Fee

The course is free of charge and lunch is included. Participants must secure their own travel expenses.

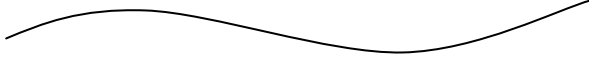
Registration

Please register by uploading one page description of your current research or development project and a one page CV no later than July 1.

Applicants will be informed of their acceptance by July 5 and a detailed program will be online by August 1. There is a limit of 25 doctoral students.

More information about the course and a registration link can be found at www.ind.ku.dk/hpscource

Ricardo Karam
Department of Science Education
University of Copenhagen





Have you read these?

Abdeljaouad, M. (2015). Question-and-answer formats in mathematics textbooks (1500-1850). *International Journal for the History of Mathematics Education*, 10(2).

Ausejo, H. (2015). New perspectives on commercial arithmetic in Renaissance Spain. In D. E. Rowe & W.-S. Hornig (Eds.), *A delicate balance: Global perspective on innovation and tradition in the history of mathematics* (pp. 181-207). Cham, Heidelberg, New York, Dordrecht, London: Springer. DOI 10.1007/978-3-319-12030-0

Bajri, S.; Hannah, J. & Montelle, C. (2015). Revisiting Al-Samaw'al's table of binomial coefficients: Greek inspiration, diagrammatic reasoning and mathematical induction. *Archive for History of Exact Sciences*, 69(6), 537-576.

Ball, D. (2015). 'Thick-rinded fruit of the tree of knowledge': mathematics education in George Eliot's novels. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 217-226.

Barbin, E. (2015). Descriptive geometry in France: History of *Élémentation* of a Method (1795-1865). *International Journal for the History of Mathematics Education*, 10(2).

Bellissima, F. (2015). Propositions VIII.4–5 of Euclid's Elements and the compounding of ratios on the monochord. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 183-199.

Chabás, J. & Goldstein, B. R. (2015). Ibn al-Kammād's *Muqtabis* zij and the astronomical tradition of Indian origin in the Iberian Peninsula. *Archive for History of Exact Sciences*, 69(6), 577-650.

Clark, K. (2015). *Jost Bürgi's Aritmetische und Geometrische Progreß Tabulen (1620): Edition and commentary*. Basel: Birkhäuser.

Cretney, R. (2016). Editing and reading early modern mathematical texts in the digital age. *Historia Mathematica*, 43(1), 87-97.

Dauben, J. W.; Guicciardini, N.; Lewis, A. C.; Parshall, K. H. & Rice, A. C. (2015). Ivor Grattan-Guinness (June 23, 1941–December 12, 2014). *Historia Mathematica*, 42(4), 385-406.

Dawes, J. (2016). After 1952: The later development of Alan Turing's ideas on the mathematics of pattern formation. *Historia Mathematica*, 43(1), 49-64.

Del Centina, A. (2016). Poncelet's porism: a long story of renewed discoveries, I. *Archive for History of Exact Sciences*, 70(1), 1-122.

Ehrhardt, C. (2015). Tactics: In search of a long-term mathematical project (1844–1896). *Historia Mathematica*, 42(4), 436-467.

Fadlelmula, F. K. (2015). Pre-service teachers' point of views about learning history of mathematics: a case study in Turkey. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 243-252.

Franchella, M. (2016). In the footsteps of Julius König's paradox. *Historia Mathematica*, 43(1), 65-86.

Furinghetti, F. (2015). ICMI Portrait Gallery of officers and eminent figures. *International Journal for the History of Mathematics Education*, 10(2).

Gagatsis, A.; Kiliari, E. & Papadaki, I. (2015). The practical arithmetic of Petros Argyros in relation to the Abaci tradition and the first Greek printed book of arithmetic, Logariastiki. *International Journal for the History of Mathematics Education*, 10(2).

Hunt, J. L. & Sharp, J. (2015). Decoding William Scrots' anamorphic portrait of Edward VI. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 200-216.

Kichenassamy, S. (2015). Continued proportions and Tartaglia's solution of cubic equations. *Historia Mathematica*, 42(4), 407-435.

Kosmann-Schwarzbach, Y. (2015). Women mathematicians in France in the mid-twentieth century. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 227-242.

Robson, E. (2015). Subverting expectations: memories of editing with Jackie. *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 30(3), 178-182.

Rowe, D. E. (2015). An *Intelligencer* quiz on Gauss and Gaussian legends. *The Mathematical Intelligencer*, 37(4), 45-47.

Schubring, G. (2015). *Introduction to biographies of IMUK/ICMI presidents: Felix Klein; David Eugene Smith*. *International Journal for the History of Mathematics Education*, 10(2).

Ulivi, E. (2015). Masters, questions and challenges in the abacus schools. *Archive for History of Exact Sciences*, 69(6), 651-670.

Verburt, L. M. (2015). The objective and the subjective in mid-nineteenth-century British probability theory. *Historia Mathematica*, 42(4), 468-487.

Ycart, B. (2016). Jakob Bielfeld (1717–1770) and the diffusion of statistical concepts in eighteenth century Europe. *Historia Mathematica*, 43(1), 26-48.

Zhu, Y. (2016). Different cultures of computation in seventh century China from the viewpoint of square root extraction. *Historia Mathematica*, 43(1), 3-25.



Announcements of events



Forthcoming BSHM meetings

(The British Society for the History of Mathematics)

<http://www.dcs.warwick.ac.uk/bshm/events.html#forthcoming>

1. Celebrating the History of Women in Mathematics at Manchester

Wednesday 9 March 2016 (16.30)
School of Mathematics' Alan Turing Building, Manchester University.

This event will celebrate the lives of three female mathematicians, Phyllis Nicolson, Hanna Neumann and Bertha Swirles, who not only made significant contributions to science but also lived incredible lives, thus earning a place in the history of mathematics in Manchester.

<http://www.maths.manchester.ac.uk/news-and-events/events/bshm/>

2. From Fibonacci to da Vinci: the Italian commercial revolution

Wednesday, 23 March 2016
University of Derby

ABSTRACT: The two Leonardos mark the approximate bounds of a period of prolific commercial activity in southern Europe, particularly in Italy, during which our modern numerals became known and

accepted into everyday use. This talk will trace the journey of the new numerals from India through the Middle East and into Europe, and explore their reception here, and why merchants of the time found them so attractive that they were prepared to make the considerable effort required to learn how to use them.

Fenny Smith

3. Mathematics emerging: A tribute to Jackie Stedall and her influence on the history of mathematics

Saturday, 9 April 2016 to Sunday, 10 April 2016

The Queen's College, Oxford

Programme: The broad theme of the meeting is sixteenth- and seventeenth-century algebra. This BSHM event is being supported by the London Mathematical Society, the International Committee for the History of Mathematics, The Queen's College, Oxford, and the Oxford University Mathematical Institute.

The main speakers are:

- Dr. Philip Beeley (Oxford):
'To the publicke advancement.' John Collins and the promotion of mathematical knowledge in Restoration England
- Rosanna Cretney (Oxford):
'Nor any Number can confine us.' The mathematical art of changes in early modern England
- Professor Robert Goulding (University of Notre Dame, USA):
Harriot's 1605 Colour Experiments
- Professor Niccolò Guicciardini (University of Bergamo, Italy):
Isaac Newton, Historian of Mathematics

- Professor Karen Parshall (University of Virginia, USA):

A Plurality of Algebras, 1200–1600: European Developments from Fibonacci to Clavius

- Professor Eleanor Robson (University College London):

Accounting and schooling in a Babylonian village, c.1600 BC

- Dr. Matthias Schemmel (Max-Planck-Institut für Wissenschaftsgeschichte, Berlin, Germany):

From forced to inertial motion: Thomas Harriot's integration of practical and theoretical knowledge on motion

- Professor Thomas Sonar (Technische Universität Braunschweig, Germany):

... in the darkest night that is ...: Briggs, Blundeville, Wright and the misconception of finding latitude

- Dr. Benjamin Wardhaugh (Oxford): Communicating with France. British mathematics in the period of Charles Hutton (1737–1823)

There will be further short contributions from the following:

- Professor Norman Biggs:

More seventeenth-century networks

- Professor Maria Rosa Massa-Esteve:

The influence of Mengoli's mathematical ideas

- Dr Staffan Rodhe:

On Goldbach's recently found booklet on series

<http://www.bsh.m.ac.uk/events/mathematics-emerging-tribute-jackie-stedall-and-her-influence-history-mathematics>

4. Number Theory and its History

Saturday, 21 May 2016

Birkbeck College, London

Rewley House meeting

This year's event will trace the study of number theory from its ancient origins to the present day. We are lucky to have a really exciting group of speakers. They are:

- Simon Singh,
- Robin Wilson,
- Kevin Buzzard,
- Catherine Goldstein,
- Michalis Sialaros, and
- Ben Fairbairn.

<http://www.bsh.m.ac.uk/events/history-number-theory>

5. Mathematics in the Enlightenment

Saturday, 25 June 2016

Rewley House 1 Wellington Square Oxford OX1 2JA

This day will explore the mathematics of the Enlightenment (c.1650 – c.1800), a period also called the Age of Reason, in which mathematical thought and a belief in logic underpinned the European World view. While algebraic methods became dominant as a mathematical language during the period, mathematics was applied to a wide range of topics, such as architecture, the law, statistics and ship building in many different forms.

6. History of Mathematics in Education: An Anglo-Danish collaboration

Sunday, 21 August 2016 to Wednesday, 24 August 2016

Bath Spa University

7. ‘Mathematical Biography: A Celebration of MacTutor’

Friday, 23 September 2016 to Saturday, 24 September 2016
St. Andrews



Aim and focus

HPM 2016 is the ninth quadrennial meeting of the International Study Group on the Relations Between the History and Pedagogy of Mathematics—the HPM Group.

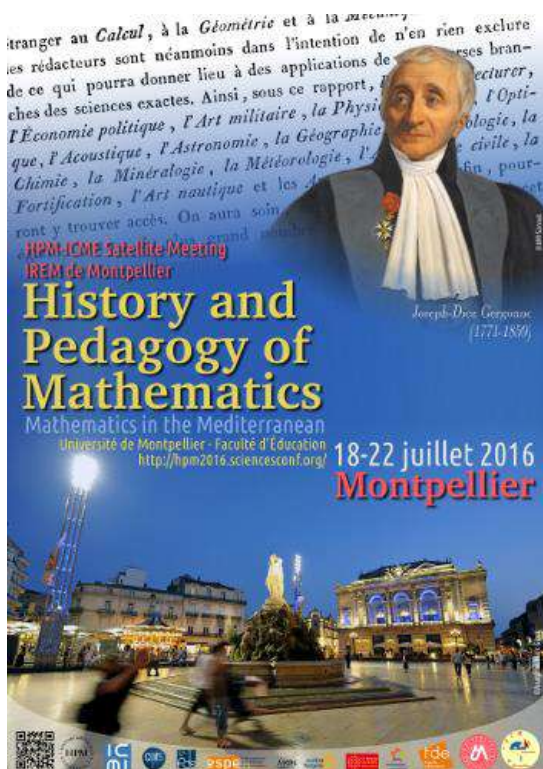
These quadrennial meetings are a major activity of HPM to bring together individuals with a keen interest in the relationship between the history of mathematics and mathematics education. They include:

- Researchers in mathematics education who are interested in the history of mathematics and mathematical thinking,
- Mathematics teachers at all levels who are eager to gain insights into how the history of mathematics can be integrated into teaching and how they can help students to learn mathematics,
- Historians of mathematics who wish to talk about their research,
- Mathematicians who want to learn about new possibilities to teach their discipline, and
- All those with an interest in the history of mathematics and pedagogy.

2. Main theme and topics

The theme of HPM 2016 is "Mathematics in the Mediterranean." The program and activities are structured around the following 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 mathematics.
6. Topics in the history of mathematics education.
7. Mathematics in Mediterranean countries.



Activities during the 2016 HPM Conference

The HPM Conference is a place where mathematicians, educators, historians, researchers, and students can make presentations and participate in discussions.

The program includes: plenary lectures, panels, discussion groups, workshops, parallel sessions where participants present research reports, poster exhibitions, and exhibitions of books and other didactical material.

Plenary sessions, discussion groups, and panels deal with the main topics of the conference. Plenary speakers, panelists, and coordinators of discussion groups are invited by the scientific committee.

We encourage you to make submissions for the following activities: workshops, research reports, poster exhibitions, and exhibitions of books and other didactical material.

Research reports are intended to communicate new research results. They take place in parallel sessions of 25-minute oral presentations followed by 5-minute discussions.

Workshops focus on the exchange of ideas and discussion among the participants around some historical or didactical material prepared beforehand by the workshop organizer. The material usually includes original historical texts, didactical material, students' worksheets, etc. Workshops can be one hour or two hours in duration.

Posters present summaries of ongoing or completed research, new ideas, etc.

Scientific program

Theme	Plenary	Panel
1. Theoretical and/or conceptual frameworks for integrating history in mathematics education.		Michael Fried (Israel), coordinator and speaker. David Guillemette (Canada), speaker. Niels Jahnke (Germany), speaker.
2. History and epistemology in students and teachers mathematics education: Classroom experiments and teaching materials.	Wang Xiaoqin (Shanghai)	
3. Original sources in the classroom and their educational effects.	Renaud Chorlay (France)	
4. Mathematics and its relation to science, technology, and the arts: Historical issues and interdisciplinary teaching and learning.	Costas Tzanakis (Greece)	

5. Cultures and mathematics.	Victor Katz (USA)	
6. Topics in the history of mathematics education.	Harm Jan Smid (Netherlands)	
7. Mathematics in Mediterranean countries.	Ahmed Djebbar (France)	Marc Moyon, Coordinator (France) Mahdi Abdeljaouad (Tunisia) Eva Caianiello (France and Italy)

Provisional planning is available
http://hpm2016.sciencesconf.org/conference/hpm2016/pages/Time_Schedule_v4.pdf

Titles of plenary talks:

- Les sources originales dans la salle de classe et leurs effets éducatifs

Renaud Chorlay, ESPÉ de l'académie de Paris, France

- Mathématiques dans les pays méditerranéens : La connexion Andaloussienne et Maghrébinne

Ahmed Djebbar, Université de Lille, France

- The mathematical cultures of medieval Europe

Victor J. Katz, Professor Emeritus, University of the District of Columbia, Washington, DC, USA

•Formative years: Hans Freudenthal in prewar Amsterdam

Harm Jan Smid, Delft University of Technology, The Netherlands

•Mathematics and physics: An innermost relationship. Some didactical implications for their interdisciplinary teaching and learning

Constantinos Tzanakis, University of Crete, Greece

•L'intégration de l'histoire des mathématiques dans l'enseignement des mathématiques: quelques expériences en Chine

Wang Xiaoqin, Shanghai, China

Time and place

The 2016 HPM Conference will be held from **July 18 to July 22, 2016** in **Montpellier, France**. Montpellier is a beautiful town, very famous for its culture and history.

The University of Montpellier, the host of the 2016 HPM Conference, is one of the oldest universities in the world, where Joseph D. Gergonne published in the early 19th century one of the oldest mathematical journals. Gergonne's portrait appears in the logo and the website banner of the Conference.

Registration fee

- *Early registration* (before April 15, 2016): 250 € (student or young researcher 150 €)
- *Regular registration* (between

April 15 and June 15, 2016): 300 € (student or young researcher 200 €)

- Registration after June 15, 2016, or at the conference: 350 €

The conference fee includes: 5 lunches, 9 coffee breaks, as well as the gala dinner on the seaside and an excursion.

Website

Follow us at:

<http://hpm2016.sciencesconf.org>

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HPM is affiliated with ICMI (International Commission on Mathematical Instruction). HPM 2016 is a satellite meeting of the 2016 International Congress on Mathematical Education and is scheduled close to ICME.

Please note that the 13th International Congress on Mathematical Education (ICME-13) will take place right after HPM 2016, from July 24 to July 31, 2016 in Hamburg, Germany (see <http://www.icme13.org/>).

ICME-13 **International Congress on** **Mathematical Education**

24 – 31 July 2016
Hamburg, Germany



<http://icme13.org/home>

Topic Study Groups at ICME-13

A Topic Study Group (TSG) is designed to gather a group of congress participants who are interested in a particular topic in mathematics education. A TSG will serve as mini-conference and will display the progress of the discussion in the intervening years since ICME-12. Topic Study Groups will therefore promote the discussion of a variety of perspectives on the theme of the Group. The TSG will consist of high-standard discussions enabling the newcomer to get a broad overview on the state-of-the-art and allowing the experts to lead discussions at a high level. The team will provide the audience of their TSG not with a nationally framed insight into the strands of the discussion of the theme, but will give an overall overview on the international discussion as broadly as possible and allowing for insight into less

well-known strands of the discussion from under-represented countries. For ICME-13, the TSG is the major arena for participation. Participants are expected to associate themselves with one TSG and to stay in that group for all sessions.

TSG 24

History of the teaching and learning of mathematics

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Team members:

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Johan Prytz (Sweden)

IPC Liaison person: Alain Kuzniak (France)

TSG 25

The Role of History of Mathematics in Mathematics Education

Co-chairs:

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<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).

Items for the Newsletter should be sent to the editors, preferably by email (see addresses below).

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92	12 June 2016	July 2016
93	12 October 2016	November 2016
94	12 February 2017	March 2017

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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.