



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



HPM 2020

Second Announcement

History and Pedagogy of Mathematics (HPM) 2020 Satellite¹ Meeting of ICME 14²

July 21 to 25, 2020
University of Macau

<https://www.um.edu.mo/fed/HPM2020>

Website

The website is available at <https://www.um.edu.mo/fed/HPM2020/>
You can use the website as an efficient tool to help promote the HPM 2020 Satellite Meeting to colleagues and friends around the world, for online registration, and to obtain information on accommodations, excursions, and the conference program (draft program anticipated in April 2020).

2019 Novel (New) Coronavirus (2019-nCoV or COVID-19)

HPM 2020 is planned to take place after the conclusion of ICME-14 (which will take place in Shanghai, China). The most recent announcement provided on the ICME-14 website by the ICMI and ICME-14 leadership states:

ICMI and ICME-14 are closely monitoring the development of events regarding the coronavirus pandemic in China, and we are holding many conversations regarding the most sensible ways to proceed, given the circumstances and the available information. For now, we decided to put a hold on paid registrations and to extend any relevant deadline (e.g. poster submissions). **On March 15th**, ICMI and ICME-14 will make a new announcement.

ICMI and ICME-14
February 20, 2020

Thus, we will be taking our guidance regarding travel to China for HPM 2020 in July 2020 from these organizational bodies. Therefore, the Co-Chairs and IPC of HPM 2020

¹ Meetings of the affiliated international study groups of the International Commission on Mathematical Instruction (ICMI) typically take place just before or after the quadrennial International Congress on Mathematical Education (ICME).

² Please note that the 14th International Congress on Mathematical Education (ICME-14) will take place just before HPM 2020, from 12–19 July 2020 in Shanghai, China (see: icme14.org).

will continue to monitor the situation and will take our lead from the organizers of ICME-14. For now, we will continue to plan HPM 2020 as if it will take place as scheduled, with participants' health safety being of utmost importance.

That said, due to the disruption caused by COVID-19, this *Second Announcement* is incomplete and should the conference take place as scheduled, we will update this document with completed information in as timely a manner as possible.

1. Aim and Focus

HPM 2020 is the tenth quadrennial meeting of the International Study Group on the Relations Between the History and Pedagogy of Mathematics—the HPM Group. The HPM Group is an affiliated study group of the International Commission on Mathematical Instruction (ICMI).³ By combining the history of mathematics with the teaching and learning of mathematics, HPM connects the past and the future of mathematics. Therefore, the group aims to stress the conception of mathematics as a living science, a science with a long history, a vivid present, and an as yet unforeseen future.

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. Time and Place

The 2020 HPM Conference will be held from **21 to 25 July 2020** at the **University of Macau** in SAR Macao, China. With a fascinating history of 400 years of cultural exchanges between the East and the West, Macao is unique in its cultures and society. It boasts many cultural treasures of all types, including picturesque dwellings in traditional styles, ancient temples built during the Ming and Qing dynasties, buildings with Southern European architectural features, baroque style churches and impressive contemporary structures. In July 2005, the historic district collectively known as the “Historic Centre of Macao” was inscribed on the UNESCO World Heritage List. Today, Macao is a Special Administrative Region (SAR) of the People’s Republic of China, benefiting from the “one country, two systems” policy. Macao SAR is growing in the number and diversity of its attractions; the greatest of these continues to be Macao’s unique society, with communities from the East and the West complementing each other. It offers a perfect environment for an international conference.

Please note that HPM 2020 takes place after the conclusion of ICME-14, which will be held from **12 – 19 July 2020** in **Shanghai, China**. Its scientific program includes oral

³ See <https://www.mathunion.org/icmi/organization/affiliated-organizations>

presentations and activities on the history and pedagogy of mathematics (TSG 27) and on the history of mathematical teaching (TSG 55).

3. HPM 2020 Topics

The program and activities of HPM 2020 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 fruitfully interwoven.
6. Topics in the history of mathematics education.
7. History of Mathematics in China and Eastern Asia.

4. Activities During the 2020 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;
- workshops;
- parallel sessions where participants present research reports;
- poster exhibitions; and
- exhibitions of books and other didactical material.

Plenary sessions and the panel deal with the main topics of the conference. Plenary speakers and panelists are invited by the International Program Committee (IPC).

Social activities include a gala dinner and excursions.

5. Plenary Lectures and Panel

Plenary Lectures:

History of Mathematics as a Way of Relating to Mathematics of the Past: The Case of Edmond Halley and Apollonius

Michael N. Fried, Ben Gurion University of the Negev, Beer-Sheva, ISRAEL

“I would like to introduce history in my mathematics lessons but I do not know how to do it!”

Marc Moyon, University of Limoges, FRANCE

Using Original Sources in the Classroom to Enrich the Mathematical Learning Experience

Mary Flagg, University of St. Thomas, Houston, Texas, USA

Mathematical World (or Worlds?) in the Context of HPM

Man Keung Siu, The University of Hong Kong, Hong Kong SAR, CHINA

Algebra in Swedish Mathematics Textbooks During the Era of Great Power
Johanna Pejlar, Chalmers University of Technology and the University of Gothenburg,
SWEDEN

Matteo Ricci and the Introduction of Euclid's *Elements* in China
Luis Saraiva, University of Lisbon, PORTUGAL

Plenary Panel:

History of Mathematics Education in China: Its Features, Influences, and Modern Values

Yiwen ZHU (Panel Coordinator), Sun Yat-sen University, The city of Guangzhou,
Guangdong Province, CHINA

(With panel member Shuyuan PAN, CHINA; Shirong GUO, CHINA; and Alexei Volkov, TAIWAN, CHINA)

6. Official Languages

The official languages of the conference are English and Chinese.

Oral presentations will be given in either English or Chinese.

7. Proceedings

Full texts for inclusion to the HPM 2020 *Proceedings* will be submitted **after** HPM 2020 and will be further reviewed by members of the IPC by the usual international standards. In all other cases, abstracts that have been accepted and presented at the conference meeting in Macao will also be included in these *Proceedings*.

Details on the procedure and the deadline for submitting full texts, their size, the format guidelines, and the expected date by which the proceedings will be available to all registered participants, will be announced in due course in the HPM 2020 website (<https://www.um.edu.mo/fed/HPM2020>) and the HPM website (<http://www.clab.edc.uoc.gr/hpm>).

8. Important Dates

Submission of abstracts: **10 November 2019**

Notification of acceptance (or not) of the submitted abstracts: **30 December 2019**

Notification of acceptance (or not) of the revised abstracts: **1 March 2020** **** Slightly delayed. Notifications will be communicated on or before 16 March 2020. ****

Early registration: **5 February – 1 April 2020** **** Registration period is currently postponed until further notice. ****

Regular registration: **2 April – 31 May 2020**

Conference Dates: 21 – 25 July 2020

9. Registration Fees

- **Early registration before 1 April 2020: 180 €** (students and K-12 teachers in mainland China, Taiwan, and Hong Kong: 90 €)
- **Regular registration between 2 April and 31 May 2020: 230 €** (students and K-12 teachers in mainland China, Taiwan, and Hong Kong: 130 €)

- **Late Registration from 1 June to 20 July 2020: 270 €** (students and K-12 teachers in mainland China, Taiwan, and Hong Kong: 160 €)

Please note: *There will be no on site registration. Therefore, all persons who plan to participate in HPM 2020 must pay the registration fee on or before 20 July 2020.*

The conference fee includes: 5 lunches, 8 coffee breaks, as well as the gala dinner on the seaside and an excursion.

10. Accommodations

Please see information provided on the HPM 2020 website:

<https://www.um.edu.mo/fed/HPM2020/acc.html>

11. Visits and Excursions

To appear in the updated *Second Announcement*.

12. The International Program Committee (IPC)

The IPC includes the following groups:

HPM 2020 Chairs

Kathleen Clark, Florida State University (USA), Chair
Chuang Wang, University of Macau (Macao), Co-Chair
Xuhua Sun, University of Macau (Macao), Co-Chair

HPM Executive Committee

Évelyne Barbin, Université de Nantes (France)
Fulvia Furinghetti, Università di Genova (Italy)
Uffe Thomas Jankvist, Aarhus University (Denmark)
Tinne Hoff Kjeldsen, University of Copenhagen (Denmark)
Constantinos Tzanakis, University of Crete (Greece)

Participating HPM Advisory Board Members

George Booker, Griffith University (Australia)
Renaud Chorlay, IREM, Université Paris 7 (France)
Ubiratan D'Ambrosio, Pontificia Universidade (Brazil)
Florence Fasanelli, American Association for the Advancement of Science (USA)
Gail FitzSimons, Warrandyte, Victoria (Australia)
Michael N. Fried, Ben-Gurion University of the Negev (Israel)
Wann-Sheng Horng, National Taiwan Normal University (Taiwan)
Victor Katz, University of the District of Columbia (USA)
Ewa Lakoma, University of Technology Warsaw (Poland)
Snezana Lawrence, Middlesex University (UK)
Maria Rosa Massa-Esteve, Universitat Politècnica de Catalunya (Spain)
David Pengelley, New Mexico State University (USA)
Hélder Pinto, University of Aveiro (Portugal)
Luis Puig, Universitat de València (Spain)
Leo Rogers, Independent Researcher (UK)
Man-Keung Siu, University of Hong Kong (Hong Kong SAR, China)
Bjørn Smestad, Oslo Metropolitan University (Norway)
Greisy Winicki-Landman, California State Polytechnic University (USA)

13. The Local Organizing Committee (LOC)

Co-Chairs: Chuang Wang, Pak Sang Lou

Co-Associate Chairs: Kong Chi Meng

UM Members: Kwok Cheung Cheung, Bobby Ho-Hong Ching; Chunlian Jiang, Xiaoqing Jin

Macao School Members: Hong Yuan Hong, Ian Nam Wong, Tak Seng Lai, Sao Kei Si, Ka Lei Che

Mainland Committee:

Wang Xiaoqin (East China Normal University)

Ji Zhigang (School of History and Culture of science, Shanghai Jiao Tong University)

Xu Zelin (Donghua University)

Song Naiqing (Southwest University, China)

Zou Dahai (Chinese Academy of Sciences)

Zhang Hong (Sichuan Normal University)

Dai Qin (Inner Mongolia Normal University)

Cao Yiming (School of Mathematical Sciences, Beijing Normal University)

Pu Shuping (College of Elementary Education, Chongqing Normal University)

Taiwan Committee:

Liu Po-hung (National Chin-Yi University of Technology)

Jia-Ming Ying (National Taipei University of Education)

Tung-Shyan Chen (National Chin-Yi University of Technology)

Hong Kong Committee:

Chan Yip-Cheung (Chinese University of Hong Kong)

Wong Ka-Lok (University of Hong Kong)

Tang Mei-yue (formerly Hong Kong Education and Manpower Bureau)

14. Contact

For further information, please contact:

- Kathleen Clark (Chair), hpm2020conference@gmail.com
- Xuhua Sun (Co-Chair), hpm2020macao@gmail.com