# HPM 2012 History and Pedagogy of Mathematics The HPM Satellite Meeting of ICME-12

16-20 July 2012, Daejeon, Korea (Republic of)

# SECOND ANNOUNCEMENT

## Web site

A web site is available at http://www.hpm2012.org.

Use it as a very efficient tool to make known the HPM 2012 worldwide, to obtain information on accommodation, online registration, excursion and sightseeing, etc.

#### 1. Aim and focus

The HPM 2012 is the eighth quadrennial meeting of the International Study Group on the Relations between the History and Pedagogy of Mathematics (the HPM Group), affiliated to ICMI. It is a satellite meeting of the corresponding ICME (International Congress on Mathematical Education) and is scheduled close to ICME. These quadrennial meetings are a major activity of HPM, to bring those together who are interested in the relation between the history of mathematics and mathematics education such as:

- Researchers in mathematics education, and its relation to the history of mathematics;
- Mathematics teachers at all levels who are eager to get insights on how the history of mathematics may be integrated into teaching and 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;
- All those with an interest in the history of mathematics and pedagogy.

## 2. Main themes

The HPM 2012 is a place where mathematicians, educators, historians, researchers and students can make presentations and participate in discussions. The programme and activities are structured around the following main seven themes:

1. Theoretical and/or conceptual frameworks for integrating history in mathematics education;

2. History and epistemology implemented in mathematics education: classroom experiments & 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 educational implications;

5. Cultures and mathematics;

- 6. Topics in the history of mathematics education;
- 7. Mathematics from Eastern Asia.

## 3. Activities during HPM 2012

During HPM 2012 there will be

- one-hour plenary lectures on each of the seven main themes
- two one-hour panel discussions

- parallel sessions of 25-minute oral presentations, followed by 5-minute discussions (15~20 min. presentation and 5~10 min. brief translation in English if it is necessary).
- poster exhibitions with discussion sessions
- exhibitions of books and other didactical material
- one-day or half-day excursion

A limited number of 1-hour workshops may be included in the program upon special request to be further considered by the Organizers. In such cases, participants are actively participating in studying a specific subject and having a follow-up discussion. The role of the workshop organizer is to prepare, present and distribute the historical, or 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).

#### 4. Invited speakers

Tinne Hoff Kjeldsen (Denmark): "Uses of history for the learning of and about mathematics: towards a theoretical framework for integrating history of mathematics in mathematics education."

Tsang-Yi Lin (Taiwan): "Using History of Mathematics in High School Classroom: Some Experiments in Taiwan."

Janet Barnett (USA): "Bottled at the Source: The Design and Implementation of Classroom Projects for Learning Mathematics via Primary Historical Sources."

Dominique Tournès (France): "Mathematics of the 19th century engineers: methods and instruments."

Ubiratan d'Ambrosio (Brazil): "Mind and Hand: the complexity and diversity of mathematics in different cultural environments."

Johan Prytz (Sweden): "Social structures in mathematics education. Researching the history of mathematics education with theories and methods from sociology of education."

Sung Sa Hong (Korea): "Theory of Equations in the history of Chosun Mathematics."

## 5. Panels

Panel 1: "Why do we require a "history of mathematics" course for mathematics teacher candidates?": Kathleen Clark (USA) coordinator, Funda Gonulates (Turkey), Maria Rosa Massa (Spain), Frédéric Métin (France).

Panel 2: "Empirical research on history in mathematics education: future challenges for our field": Uffe Thomas Jankvist (Denmark) coordinator, Yi-Wen Su (Taiwan), Isoda Masami (Japan), David Pengelley (USA).

#### 6. Time and place

HPM 2012 will be held from Monday 16 July to Friday 20 July 2012 in Daejeon, Korea.

Sessions will be held on Monday, Tuesday, Thursday and Friday with a cultural tour on Wednesday.

ICME-12 will be held from **Sunday 8 July** to **Sunday 15 July 2012** in **Seoul, Korea**. Its scientific program includes oral presentations and activities on the history and pedagogy on mathematics and on the history of mathematical teaching. It is planned that these activities will take place in the end of this meeting and that a special price for inscriptions will be granted to those who will participate to both ICME-12 and HPM 2012.

#### 7. Official Languages

The official languages are English and Korean. More specifically:

-All plenary talks and panel discussions will be in English with simultaneous translation if possible.

-Oral presentations will be given in either English, or Korean. For presentations in Korean a second set of transparencies should be, utilizing either two projectors and screens, or two power point computers.

-Chinese and Japanese languages are also acceptable if transparencies are written in English or Korean. (LOC will try to translate them in English.)

#### 8. Submission of proposals

## ABSTRACTS

- Oral presentations and Workshops
  - **30 November 2011: deadline** for submitting Abstracts
  - 31 December 2011: notification of acceptance
- Posters and Exhibitions
  - 31 December 2011: deadline for submitting Abstracts
  - 31 January 2012: notification of acceptance

**Note:** For abstracts, we recommend English version but Chinese, Japanese, or Korean versions are acceptable. (LOC will translate them in English for review).

Important: Please, use this Application Form and send it in electronic form both to

Evelyne BARBIN, Chair of HPM 2012	email: evelyne.barbin@wanadoo.fr
Sunwook HWANG, Co-chair	<u>e-mail</u> : shwang@ssu.ac.kr
Constantinos TZANAKIS, Co-chair	<u>e-mail: tzanakis@edc.uoc.gr</u>

The members of the Scientific Program Committee (SPC) will review the submitted abstracts. At this stage, acceptance of a proposal means that the proposed activity will be included in the HPM 2012 Scientific Programme. It is planned to have the proceedings ready at the meeting. For more details such as deadline for submitting Full Texts, see <u>Proceedings</u>.

#### 9. The (international) Scientific Program Committee (SPC)

- Abraham Arcavi, Weizmann Institute of Science, Israel
- Evelyne Barbin, IREM-Centre François Viète, Université de Nantes, France
- George Booker, Griffith University, Brisbane, Australia
- Renaud Chorlay, IREM, University of Paris 7, France
- Ubiratan d'Ambrosio, Pontificia Universidade, Catolica de São Paulo, Brazil

- Carlos Correia de Sà, Departamento de Matemática Pura da Faculdade de Ciências da Universidade do Porto, Portugal

- Abdellah El Idrissi, Ecole Normal Supérieure, Morocco
- Florence Fasanelli, American Association for the Advancement of Science, USA
- Gail FitzSimons, Faculty of Education, Monash University, Australia
- Fulvia Furinghetti, Department of Mathematics, Universita di Genova, Italy
- Wann-Sheng Horng, National Taiwan Normal University, Taiwan
- Sunwook Hwang, Department of Mathematics, Soongsil University, Seoul, Korea
- Masami Isoda, Graduate School of Comprehensive Human Science, University of Tsukuba, Japan
- Niels Jahnke, Fachbereich Mathematik, Universität Duisburg-Essen, Germany
- Sten Kaijser, Department of Mathematics, University of Uppsala, Sweden
- Victor Katz, Department of Mathematics, University of the District of Columbia, USA
- Kathy Clark, Florida State University, Tallahassee, USA

- Manfred Kronfellner, Institut für Algebra & Computermathematik, Technische Universität Wien, Austria

- Ewa Lakoma, Institute of Mathematics, Military University of Technology, Warsaw, Poland
- Snezana Laurence, Bath Spa University, Bath, UK
- Luis Radford, Ecole des Sciences de l' Education, Laurentian University, Canada
- Tatiana Roque, Universidade Federale do Rio de Janeiro, Brazil
- Leo Rogers, Roehampton University, Digby Stuart College, Roehampton University, UK
- David Pengelley, New Mexico State University, Las Cruces, USA
- Anjing Qu, Northwest University, Xian, China
- Gert Schubring, Institut für Didaktik der Mathematik, Universität Bielefeld, Germany
- Man Keung Siu, Department of Mathematics, University of Hong Kong, China
- Bjørn Smestad, Faculty of Education, Oslo University College, Norway
- Robert Stein, California State University, San Bernardino, USA
- Constantinos Tzanakis, Department of Education, University of Crete, Rethymnon, Greece
- Jankvist Uffe, Department of Science, Roskilde University, Denmark
- Jan van Maanen, Freudenthal Institute, University of Utrecht, The Netherlands
- Chris Weeks, Downeycroft, Virginstow Beaworthy, UK

## The Local Organizing Committee (LOC)

- Sunwook Hwang. chair, Department of Mathematics, Soongsil University, Seoul, Korea.
- Sangki Choi. vice-chair, Department of Mathematics Education, Konkuk University, Seoul, Korea.
- Jinho Kim. secretary, Department of mathematics Education, Daegu National University of Education, Daegu, Korea.
- Young Wook Kim. Department of Mathematics, Korea University, Seoul, Korea.
- Sung Sook Kim. Department of Applied Mathematics, Pai Chai University, Daejeon, Korea.
- Cheong-Soo Cho. Department of Mathematics Education, Yeungnam University, Kyungsan, Korea.
- Sang Sook Choi-Koh. Department of Mathematics Education, Dankook University, Yongin, Korea.
- Kyeonghye Han. Department of Mathematics, Soonchunhyang University, Asan, Korea.
- Wooseok Jang. Department of Mathematics, Sook Myung Girls' High School, Seoul, Korea.
- Yong Hoon Jun. Kyujanggak Institute for Korean Studies, Seoul National University, Seoul, Korea.
- Youngmee Koh. Department of Mathematics, The University of Suwon, Suwon, Korea.

## **10. Proceedings**

Publishing the Proceedings of HPM 2012 is also a major task, and will be available in the meeting.

Each submitted full text for an oral presentation or a workshop will be reviewed by members of the SPC at the usual international standards.

More details on the size of the texts, the format guidelines will be announced in due course from the HPM 2012 and HPM websites, respectively;

## http://www.hpm2012.org

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

## FULL TEXTS

## • Oral presentations and Workshops

31 January 2012: deadline for submitting Full Texts

20 March 2012: notification of acceptance or not of the submitted texts.

Posters and Exhibitions
 15 February 2012: deadline for submitting Full Texts

31 March 2012: notification of acceptance or not of the submitted texts.

## Note:

- For Full Texts, we recommend English or Korean version (official), but Chinese and Japanese texts are acceptable. (For the latter case, presentation material such as power point materials should be written in English or Korean.)
- All types of Final Draft must be submitted no later than **30 April 2012**.

# 11. Registration fee

- Early registration (before 1 April 2012): 180\$ (students 90\$)
- Regular registration (before 1 June 2012): 230\$ (students 130\$)
- Registration from 1 June 2012, or on the spot: 270\$ (students 160\$)

## Note:

- On-line registration by credit card on HPM 2012 web site <u>www.hpm2012.org</u> will be available from November 1, 2011.
- In case of paying by Bank Check or Money Order, please contact Sunwook Hwang (<u>shwang@ssu.ac.kr</u>), co-chair of HPM 2012.
- If registering both of ICME-12 and HPM 2012, registration fee of ICME-12 will be discounted by 20%.
- Cancellation of registration can be made through the web site. All cancellation must be made before June 15 and cancellation fee, 20% of the amount paid, will be deducted.

## 12. Accommodation

• Toyoko-Inn Daejeon Government Complex

(http://www.toyoko-inn.com/e hotel/00234/index.html)

Room Type	Price (including tax)	Maximum Number of Rooms
Single Room	₩60,500	92
Double Room	₩ 82,500	75
Twin Room	₩82,500	84
Deluxe Twin Room	₩108,900	43

## Note:

- All prices include breakfast.

- Current exchange rate (Based on Sept 26, 2011)

1US = #1,190 1EURO = #1,602

- Free shuttle service between DCC and Toyoko-Inn during the Conference. (10 minutes)

## • Dormitory of Chungnam National University

- Room Type: 2 persons in 1 Room
- Rates based on 7 Nights and 10 Meals.

Number of Guests	Price (including tax)	Least Number of Rooms
1 person	₩201,700	30
2 persons	₩123,650 per person	50

## Note:

- Current exchange rate (Based on Sept 26, 2011)
  1US\$ = ₩1,190 1EURO = ₩1,602
- Free shuttle service between DCC and the University during the Conference, which depends on the number of guests, will be available. (20 minutes)
- In case of applying the dormitory, please fill out <u>the application form</u> and sent it to Sunwook Hwang (<u>shwang@ssu.ac.kr</u>), co-chair of HPM 2012.

## **13. Excursion and Sightseeing**

The schedule and information about one-day or half-day excursion on July 18 (Wednesday) and extra sightseeing will be announced on the web site www.hpm2012.org.

# 14. Contact

For further information, please contact:

- Evelyne Barbin, evelyne.barbin@wanadoo.fr
- Sunwook Hwang, shwang@ssu.ac.kr
- Sangki Choi, schoi@konkuk.ac.kr
- Constantinos Tzanakis, tzanakis@edc.uoc.gr