



International Commission on
Mathematical Instruction

ICME-12

12th
International
Congress on
Mathematical
Education

Second Announcement

July 8th to 15th, 2012
COEX, Seoul, Korea
<http://icme12.org>



Welcome to ICME -12



IPC Chair Sung Je Cho

On behalf of the organizing bodies for the 12th International Congress on Mathematical Education(ICME-12), the International Programme Committee(IPC), the Local Organizing Committee(LOC), and National Advisory Committee(NAC), I cordially invite all the readers of this Second Announcement to participate in the ICME-12 to be held in Seoul from July 8th to 15th, 2012. The Congress is to be held in auspicious of the International Commission on Mathematical Instruction(ICMI) and the Korean Sub-commission of ICMI.

The IPC comprised of 22 members from 18 countries has put together a rich, varied and multi-facet scientific programme for the Congress with the aim of attracting and addressing the entire community of researchers and pioneers of mathematics education all over the world. The programme will provide food for thought and inspiration for practice for all, from established mathematics educators of world renown and novices in the field attending their first ICME, and everyone else with interest in mathematics education. Through Plenary Activities, Regular Lectures, Survey Teams, Topic Study Groups, Discussion Groups, and other activities, the state of the art in mathematics education research and the practice of mathematics teaching and learning will be examined and demonstrated from international perspectives.

LOC is comprised of several subcommittees for administering, financing, and advertising the event, as well as monitoring various emerging issues. All these sub-committees have made every effort to make ICME-12 successful to contribute to the sustainable development of mathematics education not only within Korea but also across the whole world.

NAC, comprised of the presidents of several mathematics and mathematics education societies in Korea and many senior scholars in the field of mathematics and mathematics education, regularly monitors the activities of LOC, provides valuable advices on various difficult issues based on their expertises and experiences, and helps to expand networks with others.

This Second Announcement is the summary of what these three committees have done so far, containing a lot of helpful information for all who are planning to participate in ICME-12. I would like to express my sincere thanks to all IPC, LOC, and NAC members for their commitments and thoughtfulness. I am also thankful to all Congress Subcommittee members for their efforts to make the preparation of this material possible.

I am very much looking forward to seeing you at ICME-12 in Seoul and am sure that your participation will contribute to the success of the ICME-12.



Table of Contents

Welcome message	2
Contents, Homepage, Addresses	3
What is ICME?	4
Organizing Committees	6
The Scientific Programs	9
Plenary Activities	9
Survey Teams	9
National Presentations	10
Regular Lectures	11
Topic Study Groups	12
Discussion Groups	20
Workshops & Sharing Groups	21
Posters	21
Affiliated Study Groups	22
ICMI Studies and Klein Project	23
Mathematical Carnival	23
ICME-12 Poster	24
Official meetings	25
Timetable for ICME-12	25
Grants for participants	26
ICMI Awards	26
Accommodation	26
Excursions	29
Registration	31
General Information	31
Public Bodies Supporting ICME-12	32

<http://icme12.org>

Be sure to visit the official ICME-12 website. Participants will find a lot of useful information about every aspect of the Congress in this site. The web page is being constantly updated in order to maintain all participants and interested people informed.

Congress Period and Venue

The Congress is to be held on July 8th to 15th in 2012. All of the Congress activities will take place at the COEX (Convention & Exhibition Center) in Seoul, Korea. COEX, World Trade Center, 159 Samsung-dong, Gangnam-gu, Seoul 135-731 Korea

Important Addresses

Professional Conference Organizer

MCI Korea, 5th Floor Yull Building, Dogok-Dong, Gangnam-Gu, Seoul, 135-270, Korea

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82-10-3446-1929(Hand)

Congress Sub-committee of LOC, Chair

Professor Hee-chan Lew
Korea National University of Education
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Important Deadlines (2011-2012)

Submission of Proposals

Discussion Groups	June 30, 2011
Topic Study Groups	November 1, 2011
WSG	November 30, 2011
Posters	December 15, 2011

Notification of acceptance

Discussion Groups	August 30, 2011
WSG acceptance	December 31, 2011
TSG and Posters	January 15, 2012

Application of Grants

January 20, 2012

Submission of Final Draft

April 10, 2012

Registration Fee

400 US\$	before April 1, 2012
450 US\$	before June 1, 2012
500 US\$	from June 1, 2012

What is ICME?

The International Congress on Mathematical Education (ICME) is held every four years under the auspices of the International Commission on Mathematical Instruction (ICMI). It is, however, planned and organized by separate committees, which operate independently of the ICMI: The International Program Committee (IPC), The Local Organizing Committee (LOC), and National Advisory Committee (NAC).

The aim of the Congress is to present the current state of and trends in mathematics education research and in the practice of mathematics teaching at all levels. The Congress will gather a broad spectrum of participants such as researchers in mathematics education, teacher trainers, practicing teachers, mathematicians and others interested in mathematics education.

The objectives of the ICME are:

- to show what is happening in mathematics education worldwide, in terms of research as well as teaching practices,
- to inform about the problems of mathematics education around the world,
- to learn and benefit from recent advances in mathematics education as a discipline,
- to exchange information on the problems of mathematics education around the world,
- to introduce exemplary cases of domestic classrooms (teaching) in mathematics education, which contributes to improvement of mathematics education around the world or vice versa,
- to improve the quality and professionalism of domestic mathematics teachers through introduction of exemplary cases in mathematics education worldwide,

The ICME Philosophy

International Congress on Mathematical Education (ICME) serve two major functions. On the one hand it provides a scholarly opportunity for discussion, debate, and the presentation of new research and theory in all aspects of mathematics education. On the other hand it is a meeting place for the international community of mathematics education: mathematicians, teachers, policy-makers, resource producers and distributors, as well as mathematics educators and researchers. We seek to simultaneously engage in serious scholarship and inclusive participation.

The scholarly aspect of ICME is represented by the Plenary Lecturer, Survey Teams, Regular Lectures and Topic Study Groups, and other forums. The people involved are chosen because of their high levels of scholarship, but also with care for representativeness. The Topic Study Group Co-Chairs and Team members also represent leaders in their field with due consideration for representativeness. All presentations in the Congress are potentially subject to review, and may be allocated a time or mode of presentation that reflects its quality.

Inclusiveness within ICME is obtained in many forms. All who wish to attend are welcomed, and all who wish to present will be given some opportunity to do so in an appropriate Topic Study Group. This may be an oral, or a poster presentation. ICME organisers also make special efforts to assist those who have financial or other difficulties from attending. New and inexperienced members of the ICME community are especially welcomed.

It has long been recognised by ICME organisers that collaboration is the best way of advancing our understanding of any topic. Thus there is a need to give individual voices the opportunity to be heard and the community the opportunity of hearing them, without having to conform to the deliberations of a specific group.

Another factor in inclusiveness is the issue of language. While English is the official language of the congress, ICME organisers make every effort to accommodate the fact that many participants will not have English as their first language, and that there will be significant groups of participants from other language regions. In particular, the local languages of the Congress host country needs special attention.



The International Commission on Mathematical Instruction (ICMI) was first established at the International Congress of Mathematicians held in Rome, in 1908, with Felix Klein as its first president, and in 1952 as an official commission of International Mathematical Union (IMU). As a commission, ICMI is defined by two constituent components: the Executive Committee (EC) of ICMI, elected by the General Assembly of the ICMI for a four-year term, and the ICMI Representatives of the member states.

The members of ICMI are neither individuals nor organizations, agencies, etc., but countries. Member states are of two categories: all countries members of IMU are automatically members of ICMI and, in addition, ICMI may, with the approval of the Executive Committee of IMU, co-opt on an individual basis, as so-called non-IMU members, countries which for some reason or another are unable to join the IMU. There are currently 72 member states of ICMI. Each member state, whether an IMU country or not, is entitled to appoint a National Representative.

From the very beginning, the international journal L'Enseignement Mathématique, founded in 1899 by Henri Fehr and Charles Laisant, was adopted as the official organ of ICMI - which it is still today. ICMI also publishes, under the editorship of the Secretary, a Bulletin appearing twice a year. Starting with Bulletin No. 39, December 1995, the ICMI Bulletin is accessible on the internet.

As a scientific union, IMU is a member organization of the International Council of Scientific Unions(ICSU). This implies that ICMI, through IMU, is to abide to the ICSU statutes, one of which establishes the principle of non-discrimination. This principle affirms the right and freedom of scientists to associate in international scientific activities regardless of citizenship, religion, political stance, ethnic origin, sex, and suchlike. Apart from observing general IMU and ICSU rules and principles, ICMI works with a large degree of autonomy.

ICMI Executive Committee

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History

Past ICMEs have taken place at :

Edition	Year	City	Country
1	1969	Lyon	France
2	1972	Exeter	England
3	1976	Karlsruhe	German
4	1980	Berkeley	USA
5	1984	Adelaide	Australia
6	1988	Budapest	Hungary
7	1992	Quebec	Canada
8	1996	Seville	Spain
9	2000	Tokyo	Japan
10	2004	Copenhagen	Denmark
11	2008	Monterrey	Mexico

Organizing Committee

International Programme Committee



International Commission on
Mathematical Instruction

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Myung Sook CHOI, Suri High School
Tae Seon MUN, Kangbuk Middle School
Byung Joo PARK, Yeongdong High School
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Mun Su KIM, Ulsan Computer Science High School
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Woosik HYUN, Hoseo University
Hyouk KIM, Gyeonggi Science High School
Sun Bok BAE, Hongik University
Hyang Sook KIM, Inje University
Tae Yon KIM, Novelist

The Scientific Program

The scientific program for ICME-12 is the result of the evolution, not only of the ICME congresses but of mathematics education itself. The complexity of the program structure of ICME-12 responds to various characteristics and needs of the international community of mathematics education professionals, including a variety of topics and types of activities. Below you will find our attempt to explain the rationale that gave shape and structure to the Scientific Program for ICME-12. In the pages that follow, you will find a section on each scientific program, stressing the fact that the program is built upon the work of the community. In it we describe how groups or individuals can share their work and thoughts with their peers in the various activities open to participation.

The different components of the program are then described, including the names of chairs and members of organizing teams for group activities, moderators and panelists for panel debates, and lecturers. Readers are invited to consult our web site for further details. The web site will be regularly updated. Questions and proposals concerning matters pertaining to the program should be addressed to the Chair of IPC.

Plenary Activities

The plenary activities are those components of the scientific program that address all congress participants at the same time. For ICME-12 there will be eight different plenary activities. After the lectures, there will be an opportunity for participants to meet and discuss with the lecturers.

Names and Countries/Regions of persons determined up to now as involved in the plenary activities are as follows:

PL1 (Lecture): Etienne Ghys (France), Mathematics

PL2 (Lecture): Bernard R. Hodgson (Canada), Evolution of Math Education (research & practice) as seen from ICMI Perspective

PL3 (Lecture): Don Hee Lee(Korea), Mathematics education in the national curriculum system

PL4 (Lecture): Mamokgethi Setati (South Africa), Multilinguism

PL5 (Lecture): Jo Boaler (UK), Classroom Practice and Culture & Research

PL6 (Lecture): Werner Blum (Germany), Mathematical Modelling and its Education

PL7 (Panel): Teacher Education and Development Study - Learning to teach mathematics(TEDS-M)

Konrad Krainer (Chair, Austria), Feng-Jui Hsieh(Taiwan), Ray Peck (Australia), Maria Teresa Tatto(USA),

PL8 (Panel): Math Education in East Asia (Korea – China – Japan)

Federick Leung (Chair, Hong Kong), Binyan Xu(China), Kyungmee Park(Korea), Yoshinori Shimizu(Japan)

Survey Teams

As an innovative feature of ICME-12, five ICME-12 Survey Teams (ST) have been appointed.

Each team will work until the congress to survey the state of the art with respect to a certain theme or issue, with particular regard to identifying and characterizing important new knowledge, recent developments, new perspectives, and emergent issues.

The creation of these teams is intended to strengthen the emphasis on new developments and progress in the area of each theme or issue since the latest ICMEs.

The themes and Names and Countries/Regions of persons determined up to now as involved in the survey Teams are as follows:

ST1: The relationship between research and curriculum design,

Liaison IPC member : Gail Burrill burrill@msu.edu

Chair : Glenda Lappan(USA) glappan@math.msu.edu

Team Members : Jianseng Bao(China) jsba0325@yahoo.co.uk

Malcolm Swan(UK) malcolm.swan@nottingham.ac.uk

Vinicio de Macedo Santos(Brazil) vms@usp.br

Keiko Hino(Japan) khino@cc.utsunomiya-u.ac.jp

Karen D'Emiljo(Namibia) kats@iway.na



ST2 : Gender and mathematics education (revisited),

Liaison IPC member : Gabriele Kaiser gabriele.kaiser@uni-hamburg.de

Chair : Gilah Leder(Australia) Gilah.Leder@monash.edu

Team Members : Helen Forgasz(Australia) Helen.Forgasz@monash.edu
Lovisa Sumpter(Sweden) lovisa.sumpter@edu.uu.se
Jayasree Subramanian(India) j_manian@yahoo.com
Nouzha El Yacoubi(Morocco) n.elyacoubi@yahoo.fr
Sarah Lubienski(USA) stl@illinois.edu
Maria Trigueros(Mexico) trigue@itam.mx

ST3 : The history of mathematics for supporting an interdisciplinary approach to math education

Liaison IPC member : Evelyne Barbin evelyne.barbin@wanadoo.fr

Chair : Costas Tzanakis(Greece) tzanakis@edc.uoc.gr

Team Members : Hans Niels Jahnke(Germany) njahnke@uni-due.de
Tinne Hoff Kjeldsen(Denmark) thk@ruc.dk
Tatina Roque(Brazil) tati@im.ufrj.br
Man Keung Siu(Hong Kong) mathsiu@hkucc.hku.hk
Jan van Maanen(The Netherlands) maanen@math.rug.nl

ST4 : Key mathematical concepts in the transition from secondary to university,

Liaison IPC member : Johann Engelbrecht johann.engelbrecht@up.ac.za

Chair : Mike Thomas(New Zealand) moj.thomas@auckland.ac.nz

Team Members : Elena Nardi(UK) e.nardi@uea.ac.uk
Danielle Huillet(Mozambique) danielle.huillet@yahoo.fr
Chris Rasmussen(USA) chrisraz@sciences.sdsu.edu
Iole de Freitas Druck(Brazil) iole@ime.usp.br
Mikyung Ju(Korea) mkju11@hanyang.ac.kr
Jinxing Xie(China) jxie@math.tsinghua.edu.cn

ST5 : Socio-economic influence on students' achievement,

Liaison IPC member : Morten Blomhøj morten@ruc.dk

Chair : Paola Valero(Denmark) paola@learning.aau.dk

Team Members : Danny Martin(USA) dbmartin@uic.edu
Murad Jurdak(Lebanon) jurdak@aub.edu.lb
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Mellony Graven(South Africa) mellony.graven@wits.ac.za
Miriam Penteadó(Brazil) mirgps@rc.unesp.br

National Presentation

A National Presentation is an activity during which representatives of a given country will make a presentation on the state and trends in mathematics education in that country. An exhibition, video shows, CD-Roms, and so forth may accompany these National Presentations.

ICME-12 will have a combination of 4 National Presentations and 1 Regional Presentation of mathematics education. Names of Organizers are as follows:

NP1 Korea : *Dr. Sun-Hwa Park shpark@kice.re.kr*

NP2 Singapore : *Professor Kaur Berinderjeet berinderjeet.kaur@nie.edu.sg*

NP3 USA : *Dr. Rick Scott pscott@nmsu.edu*

NP4 India : *Dr. Krishan Lal esoffice@insa.nic.in & Dr. Brotati Chattopadhyay icsu@insa.nic.in*

NP5 Spanish Cultural Heritage : *Dr. Luis Rico Irico@ugr.es*

Regular Lectures

The regular lectures will be given by 78 prominent mathematics educators from different parts of the world who have been invited by the IPC. The lectures will cover a wide spectrum of topics, themes, and issues.

The list below contains the names and countries/regions of persons who have already accepted the invitation and given the preliminary title of the lecture. The list will be updated and will eventually include final titles, abstracts and full papers.

<i>Amit, Miriam (Israel)</i>	<i>Arcavi, Abraham (Israel)</i>	<i>Bardini, Caroline (France)</i>
<i>Bortolossi, Jose Humberto (Brazil)</i>	<i>Bosch, Marianna (Spain)</i>	<i>Borromeo Ferri, Rita (Germany)</i>
<i>Cai, Jinfa (USA)</i>	<i>Carreira, Susana (Portugal)</i>	<i>Carvalho, Paulo Cezar (Brazil)</i>
<i>Cherinda, Marcus (Mozambique)</i>	<i>Davis, Brent (Canada)</i>	<i>de Villiers, Michael (South Africa)</i>
<i>Dreyfus, Tommy (Israel)</i>	<i>Drijvers, Paul (Netherlands)</i>	<i>Druck, Suely (Brazil)</i>
<i>Fernandes, Domingos (Portugal)</i>	<i>Garegae, Kgomotso (Botswana)</i>	<i>Ghosh, Jonaki (India)</i>
<i>Gourdeau, Frederic (Canada)</i>	<i>Gueudet, Ghislaine (France)</i>	<i>Hannula, Markku (Finland)</i>
<i>Healy, Lulu (Brazil)</i>	<i>Hill, Heather (USA)</i>	<i>Horn, Ilana (USA)</i>
<i>Inprasitha, Maitree (Thailand)</i>	<i>Isoda, Masami (Japan)</i>	<i>Jankvist, Uffe Thomas (Denmark)</i>
<i>Kang, Okki (Korea)</i>	<i>Kang, Wan (Korea)</i>	<i>Kawski, Matthias (USA)</i>
<i>Knipping, Christine (Canada)</i>	<i>Kuzniak, Alain (France)</i>	<i>Kynigos, Chronis (Greece)</i>
<i>Lee, Sang-Gu (Korea)</i>	<i>Leung, Allen Yuk Lun (Hong Kong)</i>	<i>Lim, Chap Sam (Malaysia)</i>
<i>Lithner, Johan (Sweden)</i>	<i>Ma, Yunpeng (China)</i>	<i>Maschietto, Michela (Italy)</i>
<i>McCallum, Bill (USA)</i>	<i>Menghini, Marta (Italy)</i>	<i>Milkova, Eva (Czech)</i>
<i>Mok, Ah Chee Ida (Hongkong)</i>	<i>Mwathi, Cecilia (Kenya)</i>	<i>Nunes, Terezinha (UK)</i>
<i>Pfannkuch, Maxine (New Zealand)</i>	<i>Radford, Luis (Canada)</i>	<i>Rubio, Blanca Souto (Spain)</i>
<i>Saint-Aubin, Yvan (Canada)</i>	<i>Sangwin, Chris (UK)</i>	<i>Shirali, Shailesh (India)</i>
<i>Spira, Michel (Brazil)</i>	<i>Stacey, Kaye (Australia)</i>	<i>Stillman, Gloria (Australia)</i>
<i>Sujatha, R. (India)</i>	<i>Toerner, Guenter (Germany)</i>	<i>Usiskin, Zalman (USA)</i>
<i>van den Heuvel-Panhuizen, Marja (Netherlands)</i>		<i>Webb, Lynn (South Africa)</i>
<i>Whang, Woo Hyung (Korea)</i>	<i>Winslow, Carl (Denmark)</i>	<i>Wu, Yingkang (China)</i>
<i>Yoon, Caroline (New Zealand)</i>		



Topic Study Groups

A Topic Study Group is designed to gather a group of congress participants who are interested in a particular topic in mathematics education. For ICME-12, the Topic Study Group is the major arena for participation. Participants are expected to associate themselves with one TSG and to stay in that group for all four sessions.

The word 'study' suggests that the activities of the groups will include presentations and discussions of important new trends and developments in research or practice related to the topic under consideration. Each TSG will be organised by a team of five to six. Two co-chairs have been appointed for each team. Each TSG will include a local member, who, as well as being a member of the team, will be the liaison with the Local Organising Committee for practical issues.

The purpose of the TSGs is to provide a forum for presentations and discussion on the current state-of-the-art in the topic, seen from an international perspective. One of the special features of ICME is that it is a place where different perspectives are welcomed and can cross-pollinate each other. By their very nature, some of the topics are focused more on research than on practice. For others the opposite will be the case, whereas several topics will have a fairly equal balance of the two.

At ICME-12, the TSGs will have four one and a half hour timeslots at their disposal. This makes TSGs the prime forum for participation. Organising teams are therefore asked to ensure that all participants who submit a contribution are given some way of making a presentation. It is recognised that some submissions are of higher quality than others, and hence may be given more time within the group. But everyone attending ICMI has a right to make a presentation of some kind, be it short oral or poster and the TSG is the only forum available. The International Programme Committee (IPC) may be consulted by Co-chairs who are having difficulty meeting this requirement.

Each TSG organising team will have the responsibility of updating the web site linked to the congress website. The web sites of each TSG will be opened in the middle of May. On this site it will be possible to follow the planning process and eventually access all relevant documents including the timetable for TSG sessions. Participants who would like to present papers in a TSG are requested to communicate with the team chairs. The TSG teams are responsible for establishing a scheme for paper presentation by distribution, see "How to contribute". Typically proposals should be put forward no later than November 1, 2011, but specific guidelines, if such apply, will be made available on the web site. If the proposal is accepted, the final draft should be submitted through on-line no later than April 10, 2102.

Deadline Summary

November 1, 2011	On-line submission of proposal
January 15, 2012	Notification of acceptance
April 10, 2012	On-line submission of final draft

The themes, co-chairs who have accepted their duties and IPC Liaisons are as the following:

Co-Chairs and Members of TSG

TSG 1: *Mathematics education at preschool level*

Co-chairs : Elin Reikeras(Norway) elin.reikeraas@uis.no
Marilyn Taylor(New Zealand) meta@waikato.ac.nz

Team Members : Haekyung Hong(Korea) hkhong@jnu.ac.kr
Camilla Bjorklund(Finland) camilla.bjorklund@abo.fi

Liaison IPC Member : Ravi Subramaniam ravi.k.subra@gmail.com

TSG 2: *Mathematics education at tertiary level and access to tertiary level*

Co-chairs : Ansie Harding(South Africa) aharding@up.ac.za,
Juha Oikkonen(Finland) Juha.Oikkonen@helsinki.fi

Team Members : Sepideh Stewart(New Zealand) stewart@math.auckland.ac.nz
Miroslav Lovric(Canada) lovric@mcmaster.ca
Sung-Ok Kim(Korea) sokim@handong.edu

Liaison IPC Member : Johann Engelbrecht Johann.Engelbrecht@up.ac.za

TSG 3: Activities and programs for gifted students

Co-chairs : Peter Taylor(Australia) pjt013@gmail.com
Roza Leikin(Israel) rozal@construct.haifa.ac.il

Team Members : Linda Sheffield(USA) sheffield@nku.edu,
Victor Freiman(Canada) freimanv@umoncton.ca
Florence Mihaela Singer(Romania) mikisinger@gmail.com
Bo Mi Shin(Korea) bomi0210@jnu.ac.kr

Liaison IPC Member : Shiqi Li sqli@math.ecnu.edu.cn

TSG 4: Activities and programs for students with special needs

Co-chairs : Jean-Philippe Drouhard(France) jpdrouhard@gmail.com or Drouhard@unice.fr
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Team Members : Heloza Barbosa heloiza@hbarbosa.org,
Petra Scherer(Germany) petra.scherer@uni-due.de
Tone Dalvang Tone.Dalvang@statped.no

Liaison IPC Member : Bernard Hodgson bhodgson@mat.ulaval.ca

TSG 5: Mathematics education in and for work

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Keiko Yasukawa(Australia) Keiko.Yasukawa@uts.edu.au

Team Members : Corinne Hahn(France) hahn@escp-eap.net,
Ok-Kyeong Kim(Korea) ok-kyeong.kim@wmich.edu
Geoff Wake(UK) geoffrey.wake@nottingham.ac.uk
Rudolf Strasser(Germany) Rudolf.Straesser@math.uni-giessen.de

Liaison IPC Member : Morten Blomhoej blomhoej@ruc.dk

TSG 6: Mathematics literacy

Co-chairs : Mogens Niss(Denmark) mn@ruc.dk,
Hileni Magano-Kapenda(Namibia) hkapenda@unam.na

Team Members : Eduardo Mancera(Mexico) eduardo_mancera@prodigy.net.mx
Gwisoo Nah(korea) gsna21@cje.ac.kr
Jianming Wang(China) jmingwang@163.com

Liaison IPC Member : Michele Artigue artigue@math.jussieu.fr

TSG 7: Teaching and learning of number systems and arithmetic --- focusing especially on primary education

Co-chairs : Joana Brocardo(Portugal) joana.brocardo@ese.ips.pt,
Geoffrey Saxe(USA) saxe@berkeley.edu

Team Members : Josephus Klep(The Netherlands) Josephus.Klep@math.uni-giessen.de,
Maria Lucia Faria Moro(Brazil) mlfmoro@sul.com.br
Minkyung Kim(Korea) mkkim@ewha.ac.kr

Liaison IPC Member : Ravi Subramaniam ravi.k.subra@gmail.com



TSG 8: *Measurement --- focusing especially on primary education*

Co-chairs : Jeong Suk Pang(Korea) jeongsuk@knue.ac.kr,
Cees Buys(the Netherlands) c.buys@slo.nl

Team Members : Silke Ruwisch(Germany) ruwisch@leuphana.de

Liaison IPC Member : Ravi Subramaniam ravi.k.subra@gmail.com

TSG 9: *Teaching and learning of algebra*

Co-chairs : Rakhi Banerjee(India) rakhi@tiss.edu or rakhi.banerjee@gmail.com,
Luis Puig(Spain) luis.puig@uv.es

Team Members : Swee Fong Ng(Singapore) sweefong.ng@nie.edu.sg
Armando Solares(Mexico) asolares@cinvestav.mx
Hwakyung Kim(Korea) hwakyung@gmail.com

Liaison IPC Member : Masataka Koyama mkoyama@hiroshima-u.ac.jp

TSG 10: *Teaching and learning of geometry*

Co-chairs : Colette Laborde(France) labordec@cabri.com, coletee.laborde@imag.fr,
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Team Members : Matthias Ludwig(Germany) Ludwig@ph-weingarten.de
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Joong Kweon Lee(Korean) joonglee@dongguk.edu
Elfrida Ralha(Portugal) eralha@math.uminho.pt

Liaison IPC Member : Hee Chan Lew hclew@knue.ac.kr

TSG 11: *Teaching and learning of probability*

Co-chairs : Per Nilsson(Sweden) Per.Nilsson@vxu.se,
Jun Li(China) lijun@math.ecnu.edu.cn

Team Members : Kyung-Hwa Lee(Korea) khmath@snu.ac.kr,
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Egan Chernoff(Canada) egan.chernoff@usask.ca,
Enriqueta Reston(Philippines) edreston@yahoo.com

Liaison IPC Member : Gail Burrill burrill@msu.edu

TSG 12: *Teaching and learning of statistics*

Co-chairs : Dani Ben-Zvi(Israel) dbenzvi@univ.haifa.ac.il,
Jean-Claude Oriol(France) jeanclaude.oriol@gmail.com

Team Members : Katie Makar(Australia) k.makar@uq.edu.au,
Arthur Bakker (the Netherlands) a.bakker4@uu.nl
Jangsun Paek(Korea) jbaek@jnu.ac.kr

Liaison IPC Member : Gail Burrill burrill@msu.edu

TSG 13: *Teaching and learning of calculus*

Co-chairs : Victor Martinez-Luaces(Uruguay) victoreml@gmail.com,
Sunsook Noh(Korea) noh@ewha.ac.kr

Team Members : Margot Berger(South Africa) margot.berget@wits.ac.za
Francisco Cordero(Mexico) fcordero@cinvestav.mx
Greg Oates(New Zealand) g.oates@auckland.ac.nz

Liaison IPC Member : Johann Engelbrecht Johann.Engelbrecht@up.ac.za

TSG 14: *Reasoning, proof and proving in mathematics education*

Co-chairs : Stephane Cyr(Canada) cyr.stephane@uqam.ca
Maria Alessandra Mariotti(Italy) marialessandra.mariotti@gmail.com

Team Members : Andreas Stylianides(UK) as899@cam.ac.uk
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Youngmee Koh(Korea) ymkoh@suwon.ac.kr

Liaison IPC Member : Hee Chan Lew hclew@knue.ac.kr

TSG 15: *Problem solving in mathematics education*

Co-chairs : Zahra Gooya(Iran) zahra.gooya@yahoo.com
Manuel Santos Trigo(Mexico) msantos@cinvestav.mx

Team Members : Man-Gu Park(Korea) mpark29@snue.ac.kr
Chunlian Jiang(China) cljiang@mail.ccnue.edu.cn
Dindyal Jaguthsing.dindyal@nie.edu.sg

Liaison IPC Member : Yuriko Baldin yuriko@dm.ufscar.br or yuriko.baldin@uol.com.br

TSG 16: *Visualization in the teaching and learning of mathematics*

Co-chairs : Gert Kadunz(Austria) gert.kadunz@uni-klu.ac.at
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Team Members : Mathias Hattermann(Germany) Mathias.Hattermann@uni-bielefeld.de
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Jaehong Shin(Korea) jhshin@knue.ac.kr

Liaison IPC Member : Bernard Hodgson bhodgson@mat.ulaval.ca, Bernard.Hodgson@mat.ulaval.ca

TSG 17: *Mathematical applications and modeling in the teaching and learning of mathematics*

Co-chairs : Jill Brown(Australia) jill.brown@acu.edu.au
Toshikazu Ikeda(Japan) ikeda@server2.edhs.ynu.ac.jp

Team Members : Sungsook Kim(Korea) sskim@pcu.ac.kr
Nicholas Mousoulides n.mousoulides@ucy.ac.cy
Jussara de Loiola Araújo jussara.loiola@gmail.com, jussara@mat.ufmg.br

Liaison IPC Member : Morten Blomhøj blomhoej@ruc.dk



TSG 18: *Analysis of uses of technology in the teaching of mathematics*

Co-chairs : Morten Misfeldt(Denmark) mmi@dpu.dk
Wei-Chi Yang(USA) wyang@radford.edu

Team Members : Erol Karakirik(Turkey) karakirik@gmail.com
Ngan Hoe Lee(Singapore) nganhoe.lee@nie.edu.sg
Jungsu Cho(Korea) chocs@yu.ac.kr
Anders Sanne anders.sanne@plu.ntnu.no

Liaison IPC Member : Yuriko Baldin yuriko@dm.ufscar.br, yuriko.baldin@uol.com.br

TSG 19: *Analysis of uses of technology in the learning of mathematics*

Co-chairs : Hans-Georg Weigand(Germany) weigand@mathematik.uni-wuerzburg.de
Marcelo Borba(Brazil) mborba@rc.unesp.br

Team Members : Ornella Robutti(Italy) ornella.robutti@unito.it
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Tom Dick(USA) tpdick@math.oregonstate.edu
Youngkuk Jeon(Korea) ycjun@sunchon.ac.kr

Liaison IPC Member : Yuriko Baldin yuriko@dm.ufscar.br , yuriko.baldin@uol.com.br

TSG 20: *The role of history of mathematics in mathematics education*

Co-chairs : Renaud Chorlay(France) renaud-chorlay@noos.fr
Wann-Sheng Horng(Taiwan) horng@math.ntnu.edu.tw

Team Members : Manfred Kronfellner(Austria) m.kronfellner@tuwien.ac.at
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Abdellah El Idrissi(Moroco) a_elidrissi@hotmail.com , abdellah_elidrissi@hotmail.com
Hyewon Chang(Korea) hwchang@cue.ac.kr

Liaison IPC Member : Evelyne Barbin evelyne.barbin@wanadoo.fr

TSG 21: *Research on classroom practice*

Co-chairs : Yeping Li(USA) yepingli@tamu.edu
Helia Oliveira(Portugal) hmoliveira@fc.ul.pt

Team Members : Raimundo Olfos Ayarza(Chile) raimundo.olfos@ucv.cl
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Merrilyn Goos(Australia) m.goos@uq.edu.au

Liaison IPC Member : Frederick Leung frederickleung@hku.hk , hraslks@hku.hk

TSG 22: *Learning and cognition in mathematics*

Co-chairs : Hsin-Mei Huang(Taiwan) hhuang22@gmail.com
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Team Members : Sungsun Park(Korea) starsun@cnue.ac.kr
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Jerry Becker(USA) jbecker@siu.edu

Liaison IPC Member : Shiqi Li sqli@math.ecnu.edu.cn

TSG 23: *Mathematical knowledge for teaching at primary level*

Co-chairs : Christoph Selter(Germany) christoph.selter@t-online.de
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Len Sparrow(Australia) l.sparrow@curtin.edu.au

Liaison IPC Member : Mercy Kazima mkazimam103@yahoo.co.uk

TSG 24: *Mathematical knowledge for teaching at secondary level*

Co-chairs : Aihui Peng(China) huihui0@163.com
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Karin Brodie karin.Brodie@wits.ac.za

Liaison IPC Member : Mercy Kazima mkazimam103@yahoo.co.uk

TSG 25: *In-services education, professional development of mathematics teachers*

Co-chairs : Shuha An(USA) san@csulb.edu
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Liaison IPC Member : Gabriele Kaiser gabriele.kaiser@uni-hamburg.de

TSG 26: *Preservice mathematical education of teachers*

Co-chairs : Sylvie Coppe(France) sylvie.coppe@univ-lyon2.fr
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Team Members : Koon Yoon Wong(Singapore) khoonyoong.wong@nie.edu.sg
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Bjoern Schwarz(Germany) schwarz@erzwiss.uni-hamburg.de

Liaison IPC Member : Gabriele Kaiser gabriele.kaiser@uni-hamburg.de

TSG 27: *Motivation, beliefs and attitudes towards mathematics and its teaching*

Co-chairs : Birgit Pepin(Norway) birgit.pepin@hist.no
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Team Members : Bettina Roesken(Germany) Bettina.roesken@uni-due.de
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Liaison IPC Member : Bill Barton b.barton@auckland.ac.nz , barton@math.auckland.ac.nz



TSG 28: *Language and communication in mathematics education*

Co-chairs : Tracy Craig(South Africa) Tracy.craig@uct.ac.za
Candia Morgan(UK) C.Morgan@ioe.ac.uk

Team Members : Marcus Schuette(Germany) schuette@math.uni-frankfurt.de
Rae Young Kim(Korea) kimrae@ewha.ac.kr
David Wanger dwanger@unb.ca

Liaison IPC Member : Oh Nam Kwon onkwon@snu.ac.kr

TSG 29: *Gender and mathematics education*

Co-chairs : Olof Steinhorsdottir(USA) steintha@email.unc.edu
Veronique Lizan(France) veronique.lizan@math.univ-toulouse.fr

Team Members : Collen Vale(Australia) lleen.Vale@vu.edu.au
Laura Martignon(Germany) martignon@ph-ludwigsburg.de
Sun Hee Kim(Korea) mathsun@silla.ac.kr

Liaison IPC Member : Cheryl Praeger cheryl.praeger@uwa.edu.au

TSG 30: *Mathematics education in a multilingual and multicultural environment*

Co-chairs : Anjum Halai(Pakistan) anjum.halai@aku.edu
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Liaison IPC Member : Frederick Leung frederickleung@hku.hk , hraslks@hku.hk

TSG 31: *Task design and analysis*

Co-chairs : Xuhua Sun(China) xhsun@umac.mo
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Liaison IPC Member : Masataka Koyama mkoyama@hiroshima-u.ac.jp

TSG 32: *Mathematics curriculum development*

Co-chairs : Koeno Gravemeijer(Netherlands) koeno.gravemeijer@esoe.nl, k.gravemeijer@tue.nl
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Team Members : Margaret Brown(UK) margaret.brown@kcl.ac.uk
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Liaison IPC Member : Cheryl Praeger praeger@maths.uwa.edu.au

TSG 33: *Assessment and testing in mathematics education*

Co-chairs : Michael Neubrand(Germany) neubrand@mathematik.uni-oldenburg.de
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Team Members : Belinda Huntley(South Africa) huntley@stjohnscollege.co.za
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David Webb dcwebb@colorado.edu

Liaison IPC Member : Johann Engelbrecht Johann.Engelbrecht@up.ac.za

TSG 34: *The role of mathematical competitions and other challenging contexts in the teaching and learning of mathematics*

Co-chairs : Maria de Losada(Columbia) mariadelosada@gmail.com
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Kyungmi Choi(Korea) kyongmi-choi@uiowa.edu

Liaison IPC Member : Petar Kenderov vorednek@yahoo.com

TSG 35: *The history of the teaching and learning of mathematics*

Co-chairs : Fulvia Furinghetti(Italy) furinghetti@dima.unige.it
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Amy K Ackerberg-Hasting aackerbe@verizon.net

Liaison IPC Member : Evelyne Barbin evelyne.barbin@wanadoo.fr

TSG 36: *The role of ethnomathematics in mathematics education*

Co-chairs : Pedro Palhares(Portugal) palhares2307@gmail.com
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Team Members : Willy Alangui(Philippines) wvalangui@upb.edu.ph
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Ho Kyung Ko(Korea) shrine999@hanmail.net

Liaison IPC Member : Bill Barton b.barton@auckland.ac.nz, b.barton@auckland.ac.nz

TSG 37: *Theoretical issues in mathematics education*

Co-chairs : Angelika Bikner(Germany) bikner@t-online.de
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Gelsa Knijnik(Brazil) gelsak@unisinis.br
Jin Young Nam(Korea) ynam@kice.re.kr

Liaison IPC Member : Michèle Artigue artigue@math.jussieu.fr



Discussion Groups

Contrary to past ICME practice, Discussion Groups for ICME-12 will be created in response to a proposal submitted by a group of up to five persons representing a diverse region of the world.

As their name suggests, Discussion Groups (DGs) are designed to gather Congress participants who are interested in discussing, in a genuinely interactive way, certain challenging, controversial or emerging issues and dilemmas of interest to an international or regional audience. The focus of DGs should be distinct from the subjects covered in the Topic Study Groups (TSG) (see Topic Study Groups for a listing of the TSGs for ICME-12) but could discuss a specific issue in greater detail than that of a TSG. Each DG will be allocated two time slots of 90 minutes each during the Congress.

A proposal should include

- Description of the background and expertise of the proposed organizers
- Detailed description of the topic including anticipated aims and a rationale for the topic
- Key questions and issues for the DG to consider
- A precise description of the anticipated structure that will be used to manage the discussion during the two sessions, taking into account there will be no oral presentations in a DG except introductions by the organizers of the group to provide the background and framework for the discussion.

Application forms are available on the website (<http://icme12.org>). Members of the organizing team must conform to the ICME custom that a person may only play one major (TSG, DG, Survey Team, Panel, plenary and regular lecture) and one minor role (poster presentation & other forms of contribution to the scientific program) at ICME. Note that proposing a DG will be considered a major role. Proposals should be received by the International Program Committee (IPC) by June 30, 2011. Proposals will be reviewed in accordance to the relevance of the topic to an international audience, the diversity and expertise of the proposed organizing team, and the format proposed for the discussion. Proposers will be notified of acceptance by August 15, 2011.

The Organizing Teams(OT) will be expected to:

- Set up and maintain the DG web page
Before the congress, the discussion group organizing team will post their page at the ICME-12 web site (<http://icme12.org>) including contributions that define, limit, and/or present basic premises, theoretical considerations, research findings, viewpoints and facts that should be accounted for if a fruitful discussion is to be attained. Prior to the congress, participants can send individual contributions to the organizers for consideration as additional background information and may raise questions or participate in an exchange of ideas through the web site.
- Produce a progress report by December 30, 2011
- Submit a final version of the DG presentation to be included in the final program booklet. The final version must be sent to the Local Organizing Committee by April 10th, 2012. This description for the final program booklet should be between one and two pages (700 to 1,400 words) with the following:
 - a) Name of DG and composition of the organizing team
 - b) General description of the program for this DG; that is the aims, scope, list of main questions it addresses, the rationale which guided the OT in arriving at the program, and so on.
 - c) The program of the DG, that is, the manner in which the discussion is organized and distributed in the two sessions.
- Organize and manage the DG sessions during the Congress
- Produce a final report for the ICME-12 Proceedings

Deadline Summary

June 30, 2011	On-line submission of Proposal
August 15, 2011	Notification of acceptance
December 30, 2011	Progress report
April 10, 2012	On-line submission of final version of the DG program

An IPC liaison will be appointed for each DG. The role of the IPC liaison officer is to support and be an important resource on how a DG works. Another source for information and guidance in planning a DG are the websites of recent ICMEs (see icme11.org and www.icme10.dk). Thank you for your willingness to contribute to the success of ICME-12. We are looking forward to an energetic exchange of ideas and information through the Discussion Groups.



Workshops and Sharing Groups

Workshops and sharing groups are either hands-on activities for a limited number of participants (20-40) who sign up ahead of time on the website of ICME-12, or small group activities designed to exchange and discuss relevant mathematical experiences. Workshops are targeted at a specific type of attendee, for example, teachers (from pre-school to university), graduate students, or researchers, who are interested in learning or trying out something through active participation. The workshops and sharing groups focus on experiences pertaining to research or teaching concerning a well-defined theme of common interest.

In workshops and sharing groups, no formal presentations will be made. Workshops and sharing groups should acquaint participants with, and provide experience in, a variety of areas, for example:

- an alternative/innovative approach to teaching or to classroom practice
- a non-traditional mathematical topic for the curriculum, or a non-traditional approach to a traditional topic
- a methodology or a technique in mathematics education research
- an innovative use of information and communication technologies in the service of mathematics education
- ways to read, write or assess academic papers in mathematics education
- how to initiate and conduct a research project
- obstacles, or avenues, to innovation experienced by individual teachers who want to adopt innovative approaches to teaching or assessment
- experiences of team teaching
- problems encountered in graduate supervision

Two sessions, one of 90 minutes and one of 60 minutes are provided for workshops and sharing groups. Workshops and sharing group organizers can use either one or both of these slots for their activities. A few rooms equipped with computers for running computer based workshops will be available upon request from the organizers.

Proposals for workshops and sharing groups in English, Korean, Chinese, or Japanese may be submitted on line by individuals or groups at the ICME-12 website. Proposals must include information about the background of the proposers, a title that specifies the nature of the activity, either a workshop or a sharing group, with a clear description of the theme, the target audience, the ideal number of participants, the goals of the activity and needs for equipment or special room space. Please check the Submission of proposals page for instructions.

Proposals should be received no later than 30 November 2011 for review by IPC chair and the decision will be posted on the same web site by 31 December 2011. Approved proposals will have a web page in the ICME 12 web site at their disposal to present their workshops and sharing groups and will be listed in the final program. Please note that participation in workshops or sharing groups is limited and allocated on a "first come first served" basis.

Deadline Summary

November 30, 2011	On-line submission of proposal
December 31, 2011	Notification of acceptance
April 10, 2012	On-line submission of final draft

Posters

Participants are invited to submit presentations in the form of posters at ICME-12. A wide array of topics and initiatives in mathematics education research or practice are possible themes for poster presentations. Posters may be presented in any of the four languages: English, Korean, Chinese and Japanese.

The exhibition space for posters can accommodate several hundred posters, will be highly accessible and well-located in central areas of the Congress activity. Posters will be on display for two or more days of the Congress. Time slots will be allocated for presentations and authors must choose one of the two modes of presentation, either oral presentation or Round Table Discussion. Round Table Discussions will be listed in the final program for ICME-12. The IPC will appoint

experienced mathematics educators to chair the Round Table Discussions.

The posters and the presentations will be grouped, as far as possible, according to language and according to the themes of the 37 Topic Study Groups. Although this is optional, authors are invited to indicate the Topic Study Group that their poster most closely relates to. Posters connected to Topic Study Groups will potentially have the benefit of an audience related to the TSG.

Information about the size and format of posters will be given when a poster has been accepted, and will be posted on the 'Poster Presentations' webpage. Presenters should use a font of at least 24 points so as to make the posters readable at a distance of 1.5 meters. Poster presenters should consider using both textual and visual means of presentation in their posters. The congress will not be able to provide poster supplies or material on site beyond space, and adhesive tape.

Authors proposing to present posters need to complete an online form, submit an abstract of the poster written in text form of 300 to 500 words and include a title and keywords before 15th December 2011. The abstracts need to be in English even if the poster is to be presented in another language.

Deadline Summary

December 15, 2011	On-line submission of proposal
January 15, 2012	Notification of acceptance
April 10, 2012	On-line submission of final draft

Affiliated Study Groups

The six Affiliated Study Groups (ASG) officially affiliated to ICMI are allocated two one-hour timeslots for their meetings during ICME-12. In addition to this some of the study groups will make use of the meeting slots during ICME-12.

The six ASGs are:

HPM (International Group for the Relations between the History and Pedagogy of Mathematics).

Official home-page: www.mathedu-jp.org/hpm/index.htm

The HPM satellite conference will be held subsequent to ICME-12 on July 16-20 in Daejeon, Korea.

ICTMA (International Community of Teachers of Mathematical Modeling and Applications).

Official home-page: www.ictma.net

IOWME (International Organization of Women and Mathematics Education).

Official home-page: www.stanford.edu/~joboaler/iowme/index.html

PME (International Group for the Psychology of Mathematics Education).

Official home-page: www.igpme.org

The 36th PME conference will be held subsequent to ICME-12 on July 18-22 in Taipei, Taiwan.

WFNMC (World Federation of National Mathematics Competitions).

Official home-page: www.amt.canberra.edu.au/wfnmc.html

MCG(International Group for Mathematical Creativity and Giftedness)

Official home-page: <http://www.igmcg.org/index.html>

The MCG conference will be held subsequent to ICME-12 on July 15 - 18 in Busan, Korea.

If some other international organizations of mathematics education including affiliated organization (ICMI Regional Conference) like EARCOME, AFRICME, CIAEM, EMF submit proposals to ask LOC to assign COEX rooms for their official meeting during ICME-12, LOC will review the proposals and notify the results.



ICMI Studies & Klein Project

The set of ICMI studies was launched in the mid-80s and has acquired a growing importance and influence on the field. It contributes to a better understanding and resolution of the challenges that face multidisciplinary and culturally diverse research and development in mathematics education.

Each Study focuses on a topic or issue of prominent current interest in mathematics education. Built around an international conference, it is directed towards the preparation of a published volume intended to promote and assist discussion and action at the international, regional or institutional level. The main emphasis of a given Study may be on analytical or action-oriented aspects, but some analytical component will always be present.

The Klein Project is inspired by Felix Klein's famous book *Elementary Mathematics from an Advanced Standpoint*, published one century ago. It is intended as a stimulus for mathematics teachers, so to help them to make connections between the mathematics they teach, or can be asked to teach, and the field of mathematics, while taking into account the evolution of this field over the last century.

The project will have three outputs: a book simultaneously published in several languages, a resource DVD to assist teachers wishing to bring some of the ideas to realisation in their classes, and a wiki-based web-site seen as a vehicle for the many people who will wish to contribute to the project in an on-going way.

In ICME-12, there will be report sessions for current ICMI-Studies, and the Klein Project:

ICMI Studies 19 Proof and Proving in Mathematics Education
ICMI Studies 20 Mathematics and Industry
ICMI Studies 21 Mathematics Education and Language Diversity
ICMI Studies 22 Task Design
ICMI Studies 23 Primary Mathematics Education
Klein Project

Mathematical Carnival

As a part of the program directed towards children and a general public, the LOC of ICME-12 will arrange a mathematical carnival during the conference days of ICME-12. The idea is that this will attract local families, teachers and families of participants as a welcoming way to experience mathematical activities.

The carnival will be located at the conference center. We have chosen different themes for each booth, and will organize it as a journey through different worlds of mathematics.

The themes are:

- Playing with mathematical puzzles and games
- Mathematics around the world
- Computer and mathematics
- Exhibition of Mathematical Art
- Exhibition of Mathematics Manipulatives
- Mathemagic
- Mathematics in daily life
- Mathematical Workshops for various students and a general public

The activities will be organized so that some children or a general public engage directly in an activity, and become a part of the performance, while other people will be audience. The equipment used, should be of a size that make it visible for everyone inside the booth. If it is possible, contributors themselves are asked to bring the equipment needed for their show.

Instructions for the activities should be written in English on one page, and if possible, in Korean on the other side of the instruction sheet.

LOC also calls for mathematical clowns and jugglers! Late afternoons and evenings will be aimed at older children and adults. Here we will engage mathematicians in giving popular talks for a general audience.

LOC invites teachers from all countries to contribute and participate in the carnival activities. These should be activities that have been tried out with students in class, at mathematics fairs or other events aimed at engaging children in active participation. In this way we, mathematics educators, will also have a chance to show how outdoor activities might be used as a tool for learning mathematics while having fun.



WWW.ICME12.ORG

ICME -12

THE 12TH INTERNATIONAL
CONGRESS ON MATHEMATICAL EDUCATION

JULY 8-15, 2012, COEX
SEOUL, KOREA



Official Meeting

General Assembly of ICMI

ICMI will hold its General Assembly (GA) on Sunday, July 8, 2012, all day. The election of the ICMI Executive Committee (EC) for the period 2013-2015 will then take place. Time and location will be announced later.

Meetings

Groups and bodies within the community of mathematics education are invited to hold business meetings during the congress. Please send your requests for such meetings to the Chair of the LOC, Hyun Yong Shin, as soon as it is convenient, before January 20, 2012, with information regarding the estimated number of participants, number of proposed meetings (three at the most) and length (normally one hour) of the requested meeting slots. Meetings will be scheduled so there are no incompatibilities with major activities.

ICME-12 Timetable

TIME	Sun	Mon	Tue	Wed	Thur	Fri	Sat	Sun	TIME	
8:00	REGISTRATION	Registration							8:00	
8:30									8:30	
9:00				Plenary III	Plenary IV		Plenary VI (Panel)	Plenary VII	Plenary VIII	9:00
9:30									9:30	
10:00			Opening Ceremony	Coffee B	Coffee B			Coffee B	Coffee B	10:00
10:30				TSG I	TSG II		Coffee B		RL VI	10:30
11:00			Coffee B				TSG III	TSG IV	Moving B	11:00
11:30										11:30
12:00			Plenary I	Lunch Break/Exhibition	Lunch Break/Exhibition			Lunch Break/Exhibition	Closing Ceremony	12:00
12:30							Lunch Break/Exhibition			12:30
1:00		Lunch Break/Exhibition	RL II	RL III			RL V	Farewell Gathering	1:00	
1:30						RL IV			1:30	
2:00		RL I	Moving B	Moving B			Moving B		2:00	
2:30						Moving B			2:30	
3:00		Moving B	NP	Plenary V (Panel)		Varia	WSG	Survey Teams	3:00	
3:30									3:30	
4:00		Plenary II	Coffee B	Coffee B					4:00	
4:30						Coffee B	Coffee B		4:30	
5:00		Coffee B							5:00	
5:30			NP	DG	AO	Poster RT			5:30	
6:00		ICMI studies + Klein				AO	Poster RT	DG	WSG	6:00
6:30	Welcome Reception								6:30	
7:00									7:00	
7:30									7:30	
8:00									8:00	
8:30									8:30	
9:00									9:00	

AO: Affiliated Organization WSG: Workshops and Sharing Groups NP: National presentation
 DG: Discussion Groups TSG: Topic Study Groups RL: Regular Lecture RT: Round Table

Grant for Participants



One of the aims of the ICME congresses is to have a balanced representation from all over the world among the presenters as well as among the general participants. In order to achieve this goal ICMI has instigated a general policy of forming a solidarity fund established by setting aside 10% of the registration fees for grants. These grants assist delegates from non-affluent countries to attend the ICMEs.

An autonomous and anonymous Grants Committee, appointed by the ICMI Executive Committee, will distribute the funds amongst the successful applicants. Priority will be given to applicants from non-affluent countries who contribute to the scientific program and to participants who are expected to be the only representative from their part of the world.

Grants will be given as partial support to registration fee, accommodation, meals and/or travel costs. All potential applicants are advised to apply for funding from other sources as well

Application for an ICME-12 grant

Participants who consider themselves eligible for an ICME-12 grant are encouraged to send a grant application to the Grants Committee, if access to the Internet is available.

Applications should be sent as soon as possible and so that they are received no later than February 15, 2012.

Professor Hyun Yong Shin
Chair of LOC of the ICME-12
Department of Mathematics Education
Korea National University of Education

ICMI Awards

The Executive Committee of the International Commission on Mathematical Instruction (ICMI) has created two awards in mathematics education research:

- The Hans Freudenthal Award, for a major program of research on mathematics education during the past 10 years.
- The Felix Klein Award, for a lifelong achievement in mathematics education research.

These awards consist of a certificate and a medal, and they are accompanied by a citation. They have a character similar to that of a university honorary degree, and they are given in each odd numbered year. At each ICME, the medals and certificates of the awards given after the previous ICME are presented at the Opening Ceremony. At the opening ceremony of ICME-12, four ICME awards will be formally presented: the Felix Klein and the Hans Freudenthal 2009 and 2011 awards

Accommodation

Hotels and other types of accommodation are located near subway stations of Seoul Metro. The following rate is applied only to the conference period, July 7-16 in case that you use on-line reservation through ICME12 website. The rates, however, subject to change without notification. If you book directly with the hotels, the price might not coincide with the offered below depending on the reservation date and contract option

10% Service Charge and 10% VAT will be added to all Hotel's price. Exchange rate is subject to daily fluctuation, but currently 1 EURO \approx 1,600 W, 1 US\$ \approx 1,100 W.

No.	Class	Hotel Name	Possible Room Occupancy	Price (Korean W)	Break-fast	Subway Location	Subway Number
1	Dormitory	Seoul National University	500 bed(2 beds in 1 room)	12,000/bed	NO	SNU	2
2	Dormitory	Konkuk University	400 bed(2 beds in 1 room)	30,000/bed 60,000/room	NO	Konkuk University	2
3	Tourist	City Palace Hotel	10	50,000	NO	Dapshimri	5
4	Tourist	Gaya Hotel	10	53,000	NO	Namyong	1
5	Tourist	Nobless Hotel	30	55,000	NO	Nowon	4
6	Tourist	Sofia Hotel	30	60,000	NO	Ssangmun	4
7	Tourist	Boom	10	60,000	NO	Balsan	5
8	Tourist	Yoido Hotel	30	65,000	NO	Yoinaru	5
9	Tourist	Central Hotel	10	65,000	NO	Jongro 3 ga	3
10	Tourist	Karak Hotel	30	65,000	NO	Karak Market	8
11	Tourist	New Regent Hotel	30	65,000	NO	Gayang	9
12	Tourist	Arego Hotel	30	65,000	NO	Gang dong	7
13	Tourist	Hotel Seoul Leisure	30	67,000	NO	Yeonshine	6
14	Tourist	Circle Hotel	20	70,000	NO	Hapjung	2
15	Tourist	Hotel Green World	20	75,000	NO	Deungcheon dong	5
16	Tourist	East Seoul Hotel	30	75,000	NO	Gangbeon	2
17	Tourist	Jamsil Hotel	30	75,000	NO	Shincheon	2
18	Tourist	Victoria Hotel	30	75,000	NO	Maya 3 street	4
19	Tourist	Bally Hotel	30	76,000	NO	Deungcheon dong	5
20	Tourist	R Hotel	30	80,000	NO	Youngdeong po	1
21	Tourist	Dynasty Hotel	30	80,000	NO	Shin Nonhyun	9
22	Tourist	Amourex Hotel	10	80,000	NO	Wangsipri	2
23	Residence	Casaville Samsung	60	90,000	NO	Samsung	2
24	Tourist	Han River Hotel	30	90,000	NO	Gwang naru	5
25	Residence	Seoul Residence	30	95,000	NO	Seonreung	2
26	Tourist	Hamilton Hotel	20	95,000	NO	Itawon	6
27	Tourist	Dongwha Kims Hotel	30	95,000	NO	Kyongbok gung	3
28	Deluxe	Ellui Hotel	100	100,000	NO	Chungdam	7
29	Tourist	Lake Hotel	20	105,000	NO	Jamsil	2
30	Tourist	Hotel California	10	109,000	NO	Karak Market	8
31	Tourist	Seogyo Hotel	30	110,000	NO	Hongdae	2
32	Tourist	Air Port Hotel	30	110,000	YES	Songjung	5
33	Tourist	Hotel Acacia	30	120,000	NO	Dongdaemun	3
34	Tourist	New Hilltop Hotel	30	120,000	NO	Hakdong	7
35	Tourist	Pop Green Hotel	20	120,000	YES	Apgujung	3
36	Tourist	Blue Pearl Hotel	20	120,000	YES	Chungdam	7
37	Deluxe	Ramada Hotel	80	130,000	NO	Samsung	2
38	Deluxe	Riviera Hotel	200	130,000	NO	Chungdam	7
39	Residence	Artnouveau City	30	130,000	NO	Samsung	2
40	Tourist	Ibis	120	135,000	No	Samsung	2
41	Super Deluxe	Imperial Palace	50	145,000	NO	Nonhyun	7
42	Tourist	Best Western Hotel	10	155,000	NO	City Hall	2
43	Super Deluxe	Renaissance Seoul	50	190,000	NO	Yeoksam	2
44	Super Deluxe	Grand Intercontinental	50	210,000	YES	Samsung	2

Excursions

Thursday, July 12th, is reserved for the excursions included in the registration fee. The excursions aim at showing congress participants and accompanying persons dynamics of Seoul and its surrounding area's natural wonders and cultural offerings.

Participants should indicate their choice of excursion when registering on-line. All excursions may be subject to changes.

Half day Tour

HT-1 Into the Korean Culture (UNESCO world heritage site tour) 09:30-14:00

Namsan Hanok Village, Five traditional Korean houses, including houses of commoners, and the residences of high government officials- owners of the eight largest mansions in Seoul- were moved onto a 7,934 square-meter lot of land. The size of each house and style of furnishing are representative of the social status of their owners, allowing visitors to view for themselves how the people of that era lived.

Changdeokgung Palace is surrounded by trees and abuts a wooded hillside on the northern fringe of Seoul. By almost everyone's estimation, Changdeok is the most beautiful and best preserved among Seoul's half dozen palaces. Indeed, the historical significance of the palace and the adjacent "Secret Garden" were underestimated until designated as a UNESCO World Heritage Site.

HT-2 Korean Buddhist Cultural Experience (Korea traditional tour) 13:30-17:00

Bongeunsa Temple, located to the north of COEX building, was constructed by the Yeonhoe-guksa high monk in 794, the 10th year of Silla King Wonseong's reign. Korean Buddhism has been the spiritual refuge for the Koreans for 1,700 years. We invite you to the Temple Stay Program, through which you might reach a state of mind and experience the real taste of the traditional Korean culture.

HT-3 Royal Palace Morning Tour (Korea traditional tour) 09:00-13:00

Gyeongbokgung Palace was built in the late 14th century by the founder of the Joseon Dynasty. The majestic edifice, "Geunjeongjeon" and the spacious 2-story pavilion "Gyeongheoru" are nestled in the middle of lotus pond "Hyangwonjeong".

The National Folk Museum of Korea is also situated in the palace compound. It displays the religious rituals, dwelling customs, household tools, food, traditional costumes and the social dynamics of traditional Korean life.

Insadong streets are lined with curio shops, antique furniture and handicrafts shops, calligraphy brush and mask shops, galleries, traditional Korean restaurants, tearooms, and many more intriguing places.

Namdaemun Market is one of the biggest markets in Seoul, where you have the variety of choices of items.

Jogyesa Temple is the headquarters of the Jogyejong, the largest sect of Korean Buddhism. It is located in the heart of Seoul. It provides a different atmosphere to enjoy. You may make wishes regardless of your religion.

Blue House (Cheong Wa Dae) is the presidential residence of the Republic of Korea.

HT-4 Feel Korea's past (Korea traditional tour) 13:30-18:00

Korean Folk Village offers a unique glimpse into Korea's past. Here in a reconstructed farmhouse, residences of the nobility and other buildings of several centuries ago, a flourishing community of potters, millers, blacksmiths, pipe-makers and other craftsmen continue to work as Korean ancestors did.

HT-5 Korean manner (Korea traditional tour) 14:00-18:00

Yoo's Family Family is established to teach traditional Korean culture and manners to foreigners who have much interest in Korean way of life and Koreans who are about to marry and want to learn real Korean virtues. Here you can enjoy how to make & drink Korean Traditional Green Tea and Wearing the traditional costume(Hanbok)

Tteok(rice cake) and Kitchen Utensil Museum The displayed utensils are handmade household necessities that are ingenuous yet reveals the life style of the working class. The elderly may relive fond childhood memories and the young generation can experience the wisdom of ancestors through the rare kitchen utensils.



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HT-6 Into the Korean Wave (Hallyu tour) 14:00-18:00

Daejanggeum Theme Park is the first drama theme park to open in Korea. This attraction is located within the MBC Yangjoo Culture Valley, the main filming location of Daejanggeum. Filled with adventures, events and fun programs you can get an inside look at the sets or be immersed in the reproduced drama scenes. Explore the drama props, royal dishes and costumes created for the scenes.

Full day Tour

FT-1 One day in Seoul (Korea traditional tour) 09:00-17:00

Cheonggye Stream, Surrounding Cheonggyecheon, flowing through the central part of Seoul, are a variety of fun activities and delicious eateries open to the public. Museums, a palace, and outdoor cafes and restaurants surround the starting point of Cheonggyecheon. enjoyable time. You can walk around Seoul's central area, and also go on a tour led by a cultural heritage commentator.

FT-2 Experience the 16th Century Korean Life style (Korea traditional tour) 09:00-17:00

Icheon lies about 60 km southeast of Seoul and is famous for its kilns and hot springs. You can not only purchase ceramics but make them yourself. You will visit to Haegang Ceramics Museum where is devoted entirely to the ceramic arts. You can visit showrooms to watch master potters at work and purchase handicrafts as well.

FT-3 The World's Last Place of Confrontation (Korea traditional tour) 08:00-15:30

Demilitarized Zone is now the only cold war area in the world after the collapse of the Berlin wall. Ongoing peace negotiations are still held at the truce village periodically. Also included are Freedom Bridge, Dora Observatory, the 3rd Tunnel, Ginseng Center.

FT-4 Past & Modern Korean culture (Shopping tour) 09:00-17:00

National Museum of Korea holds a collection of approximately 150,000 works of art. The museum holds permanent collections of ancient artifacts, historical artifacts, works of art, donations, and Asia related cultural artifacts. Furthermore, the museum also offers exhibition space to feature various cultural works, and an exhibition hall dedicated to children's learning through exploration activities. The garden outside the museum offers an outdoor exhibition of stone pagodas and a variety of stone constructed relics from history.

Leeum, Samsung Museum of Art is committed to establishing and preserving a new interpretation and perspective of traditional Korean art, encouraging and presenting new trends in Korean modern art, and displaying international contemporary art that reflects the preeminent values of our time. As part of its commitment, the Museum is very much interested in open-ended exploration, welcoming all who enjoy and understand art, enriching art worldwide, without boundaries.

FT-5 Filming site of Winter Sonata (hallyu tour) 09:00-18:00

Nami Island is covered with more than 300 species of trees, the island had long been frequented by those who appreciate its serene and idyllic setting, but when the drama "Winter Sonata" became a mega - hit in Japan, Japanese tourists flocked there to walk amid the same scenes as the drama's stars Bae Yong- Joon and Choi Ji-Woo. Although the drama's fame has subsided, Nami Island is still a popular spot. The island is not as big as one might expect, but cozy and versatile.

Registration

On-line registration is available at the ICME-12 website, <http://icme12.org>. Registration is valid only when accompanied by confirmation of payment. Payment can be made in US Dollars (US\$) or Euros (€).

Note: 10% of the registration fee is directed to the Solidarity Fund. Further contributions are welcome and can be indicated upon registration.

Registration Fee for participant includes:

- A set of Final Program and abstracts booklets
- Admission to scientific program activities
- Admission to exhibition area
- Admission to social program activities
- Excursion of your choice for Thursday, July 12th (lunch included)
- An USB memory stick containing congress proceedings

Registration Fee for accompanying persons

- Admission to exhibition area
- Excursion of your choice for Thursday, July 12th (lunch included)

Confirmation of registration

Confirmation of registration will be sent to you by e-mail. If requested, an invitation letter may be sent to invited contributors for visa - arrangement purposes.

Cancellation conditions

Cancellations can be made through the website. All cancellations must be made before June 1st and will incur in a cancellation fee of 20% of the amount paid. Cancellations after this date will not be possible.

If the congress is cancelled for reasons beyond the control of the organizers, the registration fee will be refunded after deduction of expenses related to the handling of the registration.

Payment

For registration, payment can be made on-line via credit card. In case you want to pay by bank transfer, contact Professor Hyun Yong Shin(shin@knue.ac.kr), Chair of LOC. The total registration charges must be paid in US Dollars or Euros. All costs incurred with checks and bank transfers must be covered by the participant.

General Information

Congress language

The official congress language is English. Nevertheless, simultaneous translation to Korea, Japanese and Chinese will be provided for the plenary activities.

Visa

All participants must find out if they need a visa to enter Korea. Guidelines for obtaining a visa can be found in the <http://www.mofat.go.kr/english/main/index.jsp>

Letter of invitation

Upon request, a letter of invitation will be sent to speakers and contributors to scientific program activities for visa purposes or if required by their institution. Other participants who need a letter of invitation are asked to send official documentation of their professional affiliation with Mathematics Education so that we may honor their request



Health insurance

Congress participants should make sure that their health insurance will cover their travel and stay in Korea. Your insurance agent should be able to provide this information.

Weather

In July you may expect bright sunshine and scattered showers in Seoul. For the period of July 8 to 15 in recent years, the weather in Seoul has had a mean temperature of 24°C, with an average high of 28°C and an average low of 21°C.

Tourist Information

Further tourist information about Korea and Seoul can be found at:

<http://www.visitkorea.or.kr/intro.html>

<http://www.visitseoul.net/main.jsp>

Public Bodies Supporting ICME-12

The ICME 11 organization is happy to thank for their important support in many ways the following organizations and public bodies:

Korea Association of Mathematics Societies

Korean Mathematical Society

Korea Society of Mathematical Education

Korea Society of Educational Studies in Mathematics

Korean Society for Industrial and Applied Mathematics

Korean Woman in Mathematical Sciences

Korea Institute of Information Security & Cryptology

Korean Association for Mathematical Logic

Korean Society for Mathematical Biology

Korea Society for History of Mathematics

Korean Society of Elementary Mathematics Education

Korean Society of Teachers of Mathematics

Korea Ministry of Education, Science and Technology

Korea Foundation for advancement of Science and Creativity

International Commission on Mathematical Instruction(ICMI)

Korea Sub-commission of ICMI(KSICMI)

National Institute of Mathematical Science(NIMS)

Korea Institute of Advanced Studies(KIAS)

Woman Into Science, Engineering and Technology(WISET)

International Mathematical Union(IMU)

Korea Institute of Curriculum and Evaluation(KICE)

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:: Exhibition Enquiries

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we bring people together