



International Commission on Mathematical Instruction

Activity and Financial Report 2012



2012 at a glance

Key activities:

Administration and Governance

The ICMI General Assembly took place in Seoul in July and a new Executive Commission (2013-2016) was elected.

Members

Three new members were welcomed into the ICMI community: Nepal, Madagascar, and Oman.

Conferences

ICME: The 12th International Congress on Mathematical Education (ICME) was held on July 8-15, 2012 in Seoul, South Korea.

ICMI Regional Conference: EMF 2012 (Espace Mathématique Francophone) was held in Geneva, Switzerland, in February 2012.

International Research Collaboration: ICMI Studies

ICMI Study 19: The Role of Mathematical Reasoning and Proving in Mathematics Education was published in March and launched in July 2012.

ICMI Study 23: The Primary Mathematics Study on Whole Numbers was launched in the fall 2012. Mariolina Bartolini and Sun Xuhua have agreed to Co-Chair this study. The IPC has been appointed.

Outreach to Developing Countries

Capacity and Network Project (CANP) 1 EDI-Math Sub-Saharan Africa: The follow-up workshop took place in Senegal in September 2012 in Dakar.

CANP 2 Central America and the Caribbean: The first workshop took place in Costa Rica in August and successfully launched a new regional mathematics education network.

CANP 3 South East Asia: Was successfully launched and will take place in October 2013 in Phnom Penh, Cambodia.

Klein Project

Fourteen vignettes (short articles for secondary school teachers of senior mathematics classes) have been published and some translated into one or more of six languages 2012.

ICMI Awards

The ICMI 2009 and 2011 Awards were presented to the Awardees at the ICME-12 Opening Ceremony to Gilah C. Leder (Australia) and Alan Schoenfeld (USA) who received the Felix Klein Medal for lifetime achievement and Luis Radford (USA) and Yves Chevallard (France) who received the Hans Freudenthal Medal for a major cumulative programme of research.

Administration and Governance

Organisation

ICMI Members and Representatives

In 2012 ICMI had 92 member countries, 70 of which are also IMU members and 10 are IMU associate members. Each member country is required to elect an ICMI Representative who represents the ICMI member country at the ICMI General Assembly and has the (sole) voting right for the ICMI Executive Committee (ICMI EC). The ICMI representative also informs the national communities of developments within ICMI.

Executive Commission 2010-2012

The members of the EC 2010-2012 were:

PRESIDENT: Bill Barton (New Zealand)

SECRETARY-GENERAL: Jaime Carvalho E Silva (Portugal)

VICE-PRESIDENTS (2): Mina Teicher (Israel) and Angel Ruiz (Costa Rica)

MEMBERS AT LARGE (5):

Mariolina Bartolini Bussi (Italy)

Sung Je Cho (South Korea)

Roger Howe (USA)

Renuka Vithal (South Africa)

Zhang Yingbo (China)

The third meeting of the 2010-2012 Executive Commission took place in Seoul, South Korea JULY 6TH, 7TH, & 15TH, 2012. The major conclusion reached were the continued expansion of ICMI development activities in the form of the Capacity and Network Project (CANP), and the launching of Study 23 on Primary Mathematics.

General Assembly

The ICMI General Assembly took place on July 5th in Seoul. The new ICMI EC was elected and in this context a number of important decisions were made on topics that were a major focus of the activities during the year.

The new Executive was elected, reports from affiliated organisations were received, and two topics were discussed: how to get teachers more involved in ICMI/ICME; and how to better support regional initiatives.



General Assembly Seoul July 2012

Executive Commission 2013-2016

The members are:

PRESIDENT: Ferdinando Arzarello (Italy)

SECRETARY-GENERAL: Abraham Arcavi (Israel)

VICE-PRESIDENTS (2): Cheryl Praeger (Australia), Angel Ruiz (Costa Rica)

MEMBERS AT LARGE (5):

Yuriko Baldin (Brazil)

Jean Luc Dorier (Switzerland)

Zahra Gooya (Iran)

Roger Howe (USA)

Catherine Vistro-Yu (Philippines)



Roger Rowe, Bill Barton, Jean Luc Dorier (back from left to right)
Yuriko Baldin, Cheryl Praeger, Ferdinando Arzarello, Zahra Gooya, Abraham Arcavi (front from left to right)

IMU Secretariat

ICMI is supported by Lena Koch, working part-time for ICMI at the IMU Secretariat in Berlin, Germany. She is responsible for all administrative and organisational issues regarding ICMI. Other staff members in Berlin also assist ICMI, including the IMU Secretariat manager, the accountant, the IT and technical support staff as well as the IMU archivist.

ICMI Affiliate Organizations

ICMI's organisational outreach includes ten multi-national organisations and study groups with interest in mathematics education.

Affiliated organisations are independent from ICMI and are self-financed. They collaborate with ICMI on specific activities, such as the ICMI Studies or CANP. The ICMI Affiliate Organisations also produce reports

for the General Assembly of ICMI. There are currently four multi-national Mathematical Education Societies (one affiliated in 2011) and six international Study Groups which have obtained affiliation to ICMI.

The multi-national Mathematics Education Societies currently affiliated to ICMI, with year of affiliation, are:

- CIAEM: Inter-American Committee on Mathematics Education (2009)
- CIEAEM: International Commission for the Study and Improvement of Mathematics Teaching (2010)
- ERME: European Society for Research in Mathematics Education (2010)
- MERGA: Mathematics Education Research Group of Australasia (2011)

The Study Groups currently affiliated to ICMI, with their year of affiliation, are:

- HPM: The International Study Group on Relations between the History and Pedagogy of Mathematics (1976)
- ICTMA: The International Study Group for Mathematical Modelling and Applications (2003)
- IOWME: The International Organization of Women and Mathematics Education (1987)
- MCG: The International Group for Mathematical Creativity and Giftedness (2011)
- PME: The International Group for the Psychology of Mathematics Education (1976)
- WFNMC: The World Federation of National Mathematics Competitions (1994)

ICMI Activities in 2012 in Detail

The International Congress on Mathematical Education (ICME)

Seoul, Korea hosted ICME-12 in 2012 in the COEX Convention Centre on July 8-15, 2012. More than 3,600 participants from 84 countries participated. The International Programme Committee (IPC) was chaired by Professor Sung Je Cho, of the Seoul National University. Information about the congress is available at <http://www.icme12.org>.

Each ICME devotes at least 10 per cent of the registration fees to the ICME Solidarity Fund that allows organizers to give support to some participants from developing countries. For ICME12, 155 participants were awarded grants, involving a total of USD 146,000. The distribution was made by a Grant Committee, jointly appointed by the congress organizers and the ICMI Executive Committee.

ICME-13 will be held in 2016 in Hamburg, Germany.

ICMI Studies

A major ICMI programme is the series of ICMI Studies. Each Study addresses an issue or topic of particular significance in contemporary mathematical education, and is conducted by an international team of leading scholars and practitioners. Built around an international conference, it is directed towards the preparation of a published volume to promote discussion and action at the international, regional or institutional level. More than 20 volumes have been published between 1986 and 2012.

Current Studies are:

- ICMI Study 19: The Role of Mathematical Reasoning and Proving in Mathematics Education, published under the editorship of the two co-chairs, Gila Hanna and Michael de Villiers in March 2012. (NISS 15)

- ICMI Study 20: Educational Interfaces between Mathematics and Industry is organised jointly with the International Council for Industrial and Applied Mathematics (ICIAM). The IPC is co-chaired by Alain Alabamian (Université Paris-Est) and Rudolf Sträßer (Justus-Liebig-Universität Gießen). The Study was presented during the 7th International Congress on Industrial and Applied Mathematics (ICIAM 2011). The NISS volume is currently in preparation under the editorship of Alain Damlamian, Rudolf Sträßer and José Francisco Rodrigues with publication expected in 2012/13. (NISS 16).

- ICMI Study 21: Mathematics Education and Language Diversity, was presented at the Study Conference place in Águas de Lindóia, São Paulo, Brazil, on 16-20 September, 2011. The Study Volume has entered the editing process and will be published in 2013/2014 (NISS 17). The website is <http://www.icmi-21.co.za>.

- ICMI Study 22: The 2010-2012 Executive Committee launched a new Study late in 2010 on Task Design. The co-chairs are Anne Watson (Oxford University) and Minoru Ohtani (University of Kanazawa, Japan). The IPC met in January 2012 in Oxford, UK. The Study conference will be held 2013 in Oxford, UK.

- ICMI Study 23: The 2010-2012 Executive Committee launched in December 2012 a new Study on Primary Mathematics Education and appointed the Co-Chairs Mariolina Bartolini Bussi, University Modena e Reggio Emilia, Italy, and Sun Xuhua of the University of Macau, China.

ICMI Regional Conferences

Launched in the mid-seventies, ICMI Regional Conferences aim to facilitate wider discussion of mathematical education issues in particular regions.

- ICMI-EARCOME-6 conference (the Fifth ICMI East Asia Regional Conference in Mathematics Education), to be held in Phuket, Thailand in March 2013. The ICMI EC will be represented on the International Programme Committee of this conference by Zhang Yingbo.

- AFRICME the Africa Regional Congress of ICMI on Mathematical Education was launched in 2005 and aims at offering a forum for mathematics educators throughout Africa. AFRICME-4 will be held June 2013 in Lesotho.

- EMF (Espace Mathématique Francophone) - These conferences are defined in linguistic rather than geographical terms. EMF 2012 was held in Geneva, Switzerland, in February 2012. The ICMI EC was represented on the International Programme Committee of EMF 2012 by Bernard Hodgson and Jaime Carvalho e Silva. The sixth EMF conference, (EMF-2015) will be held 2015 in Algeria.

The Klein Project

The Klein Project, inspired by Felix Klein's Elementary Mathematics from an Advanced Standpoint, provides contemporary mathematics for mathematics teachers. In 2012 the Klein Project has turned its primary focus to the production, dissemination, and trialling (with teachers) of "Klein Vignettes" (short articles). The Design Group met in May 2012 in Paris, the next meeting will be held in Berlin, Germany in September 2013. The Vignettes are being distributed via a Blog (<http://blog.kleinproject.org/>) and are being trialled both in Brazil under the coordination of Yuriko Baldin, and in New Zealand under the coordination of Bill Barton.

Outreach to Developing Countries Capacity and Networking Project (CANP)

CANP is the major development project of ICMI in conjunction with the International Mathematical Union, IMU and UNESCO. It aims to enhance mathematics education in developing countries by supporting the educational capacity of those responsible for mathematics teachers, and creating sustained regional networks of teachers, mathematics educators and mathematicians, linking them to international support. The first CANP Program, CANP Sub-Sahara EDIMath) was held for two weeks in 2011 in Mali with about 40 participants from five countries in the region. The follow up meeting of CANP Sub-Sahara EDIMath was successfully held in September 2012 in Senegal.

The second CANP Programme, CANP Central America and the Caribbean, held its two week workshop with about 40 participants from six countries in Costa Rica in August 2012. The creation of the Mathematics Education Network: 'REDUMATEMATICACYC' - a professional community of mathematicians, educationalists, teachers, policy makers and institutions within and outside of the region was an important outcome of CANP Central America and the Caribbean. The workshop was financially supported by ICSU, the IMU and the IMU Commission for Developing Countries as well as ICMI, MEP, ICMAT Mexico, the University of Costa Rica and the Costa Rican Editorial Tecnologia.

The ICMI EC (2010-2012) decided to launch the third CANP Program in 2013 in South East Asia (host country Cambodia) and in the fourth CANP in 2014 in East Africa (host country Tanzania).



Participants of CANP Central America and the Caribbean, Costa Rica, 2012

IMU Commission for Developing Countries (CDC)

The ICMI EC also appoints one member of the IMU Commission for Developing Countries (CDC). The ICMI 2010-2012 EC nominated Angel Ruiz as member of this Commission (2010-2014). In 2012 ICMI received a grant from CDC for the Capacity and Network Project in Costa Rica.

ICMI Solidarity Fund

The ICMI Solidarity Fund was established by ICMI in 1992 to help the development of mathematics education in countries in which there is a need for it that justifies international assistance. The money has been re-allocated to the CANP project where it is used to serve its intended purpose.

IMU/ICMI Digitization Program

The ICMI Digital Library Project aims at providing open access to all ICMI publications and thematic Studies. Currently proceedings of the symposium organized in the year 2000 on the occasion of the centennial of L'Enseignement Mathématique, the official organ of ICMI, the first five ICMI Studies, ICMI Bulletins, and proceedings various meetings and conferences are available for free download on the ICMI website.

<http://www.mathunion.org/icmi/digital-library/introduction/>

Database Project

The Database Project, launched in 2011 has as its ultimate goal to build up a free access database of the mathematics curricula (ranging from pre-primary, primary, elementary, middle, secondary to vocational and undergraduate university level) from all over the world. Useful web links can be sent to the ICMI Secretary General. Currently information from 27 countries is available on the ICMI website. The database is already in use by researchers and curriculum-developers.

Communication and Outreach

The ICMI website, now hosted on the IMU server in Berlin, received some updates in 2012: <http://www.mathunion.org/icmi/>. The ICMI Facebook page was established in 2011 and has more than 1825 'friends' and 583 'likes'.

Communication within ICMI is by direct email contact with the ICMI Representatives, and, for individuals, through ICMI News appearing every two months, alternating with *IMU-Net*. An annual ICMI Bulletin is the official organ of ICMI activities. All communications are under the Editorship of the ICMI Secretary-General.

ICMI Awards

In 2003 ICMI created two awards in mathematics education research: the Felix Klein Award, for lifelong achievement in mathematics education research, and the Hans Freudenthal Award, for a major programme of research on mathematics education. These awards are announced every two years and conferred at the opening ceremonies of ICMEs.

At the ICME opening ceremony in Seoul in July 2012, the 2009 and 2011 ICMI Awards were presented to Alan Schoenfeld (USA) and Gilah C. Leder (Australia) who received the Felix Klein Medal for lifetime achievement and Luis Radford (USA) and Yves Chevallard (France) who received the Hans Freudenthal Medal for a major cumulative programme of research.

Financial Summary

ICMI's principal source of 'core' income is an annual grant from the International Mathematical Union (IMU) which receives its support from IMU member countries. Additionally ICMI is supported by a part-time staff member from the IMU Secretariat. The IMU Secretariat receives a subvention from the host country (Germany) to run all its administrative business. The other major sources of income for ICMI are grants from various organizations and foundations. The ICMI EC approves the ICMI budget and all its related spending. The financial report for 2012 can be found in the appendix 1.

ICMI would like to thank IMU for all the support and collaboration.

More information about ICMI can be found on the website:

www.mathunion.org/icmi

Appendix 1

ICMI Budget 2012 Transaction	Amount	Total	Account Balance (EURO)
ICMI Balance as of 31.12.2011 including the CAN Dollar Account, the USD Account and the Solidarity Fund	151,210.49 €	151,210.49 €	
INCOME 2012			
Interest EURO Account Berlin 2012	597.06 €		
IMU allocation ICMI for 2012	55,274.90 €		
IMU Grant for ICME12	10,000.00 €		
IMU GRANT FOR CANP CAMBODIA 2013	30,000.00 €		
IMU GRANT for COSTA RICA 2012	30,000.00 €		
CDC GRANT for CANP/ Costa RICA Project	3,830.83 €		
Springer Royalties	351.78 €		
ICSU Grant for CANP Costa Rica	30,000.00 €		
Total Income 2012		160,054.57 €	
Total Funds ICMI		311,265.06 €	
EXPENDITURE 2012			
ICMI Website	260.00 €		
Cost Credit Card Annual Fee	47.50 €		
BANK ACCOUNT Transfer Fees	1,543.14 €		
Total Administrative Cost		1,850.64 €	309,414.42 €
Total Conference Cambodia, on Science and Mathematics Education		4,232.16 €	305,182.26 €
Total ICMI Study 22, IPC Meeting Oxford, January 2012		3,670.70 €	301,511.56 €
Proceedings of Rome 2008 (60 copies)	1,000.00 €	1,000.00 €	300,511.56 €
Seminar Michele Artique, Paris		1,919.00 €	298,592.56 €
ICMI General Secretary various travel cost (ICMI Study 20, EMF, ICME12 Site visit)	1,622.08 €	1,622.08 €	296,704.48 €
ICME 12 (including EC and GA costs)	64,090.92 €	64,090.92 €	232,879.56 €
CANP 1, (EdiMATH 2 Senegal 2012)		4,926.93 €	227,952.63 €
AFRICME 2013 Grant	3,914.92 €	3,914.92 €	224,037.71 €
EARCOME 2013 Grant	4,099.15 €	4,099.15 €	219,938.56 €
CANP 2 (Central American and the Caribbean, Costa Rica 2012)		68,929.41 €	151,009.15 €
Nepal visit Bill Barton (ICMI President)	1,304.67 €	1,304.67 €	149,704.48 €
Translation Freudenthal Book*	3,000.00 €	3,000.00 €	146,704.48 €
ICMI Study 23 Grant*	4,100.00 €	4,100.00 €	142,604.48 €
Klein Project in Cambodia*	3,000.00 €	3,000.00 €	139,604.48 €
CANP 3 South East Asia (Cambodia 2013)*	50,000.00 €	50,000.00 €	89,604.48 €
CANP 3 South East Asia (Cambodia 2013), Grant for 2 Cambodians to participate at EARCOME*	2,000.00 €	2,000.00 €	87,604.48 €
Currency discrepancy	1,166.57 €	1,166.57 €	86,437.91€
Total funds unspent or undedicated in 2012			86,437.91€
Total spending ICMI in 2012		224,827.15 €	
Total spending ICMI in 2012 without CANP South East Asia (Cambodia 2013)		172,827.15 €	

(*) not transferred in 2012

Appendix 2

Member Countries of ICMI 2012:

- A** Algeria
Argentina
Armenia
Australia
Austria
- B** Bangladesh (*)
Belgium
Bosnia and Herzegovina
Botswana (*)
Brazil
Brunei Darussalam (*)
Bulgaria
- C** Cambodia (*am*)
Cameroon
Canada
Chile
China
Colombia
Costa Rica (*)
Croatia
Cuba
Czech Republic
- D** Denmark
- E** Ecuador (*am*)
Egypt
Estonia
- F** Finland
France
- G** Georgia
Germany
Ghana (*)
Greece
- H** Hong Kong
Hungary
- I** Iceland
India
Indonesia
Iran
- Ireland
Israel
Italy
Ivory Coast
- J** Japan
- K** Kazakhstan
Kenya (*am*)
Republic of Korea
Kuwait (*)
Kyrgyzstan (*am*)
- L** Latvia
Lithuania
Luxembourg (*)
- M** Madagascar (*am*)
Malawi (*)
Malaysia (*am*)
Mexico
Moldova (*am*)
Montenegro
Mozambique (*)
- N** Nepal (*am*)
Netherlands
New Zealand
Nigeria
Norway
- O** Oman (*am*)
- P** Pakistan
Peru
Philippines
Poland
Portugal
- R** Romania
Russia
- S** Saudi Arabia
Senegal (*)
Serbia
Singapore
Slovakia
Slovenia
South Africa
Spain
Swaziland (*)
Sweden
Switzerland
- T** Thailand (*am*)
Tunisia
Turkey
- U** Ukraine
United Kingdom
United States of America
Uruguay
- V** Venezuela
Vietnam
- Z** Zambia (*)

Bill Barton, ICMI President (2010-2012)
Jaime Silva, ICMI Secretary- General (2010-2012)
Lena Koch, ICMI Administrator, IMU Secretariat

April 2013

Photo credits:
Lena Koch
Angel Ruiz