

ICMI

ICMI Newsletter

*A Newsletter from the ICMI-International Commission
on Mathematical Instruction*

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JULY 1, 2016

Contents

1. Editorial – From the desk of Abraham Arcavi, ICMI Secretary General
2. ICME's memorabilia
3. ICMI's General Assembly
4. ICSU

1. Editorial – From the desk of Abraham Arcavi, ICMI Secretary General

“Mathematics should be taught to be fully integrated by the learner, which means that he [or she] should enjoy it and know how to use it if need be. ... Mathematics should not be taught to fit a minority, but to everybody, and they should learn, not only mathematics but also what to do with mathematics. This ... [means] creating ... the attitude of discovering mathematics wherever it applies.”

Mathematics for all, the enjoyment of learning it and knowing how to use it wisely seems to be at the core of the everlasting, timeless and consensual aims of mathematics education worldwide. These wise thoughts, so relevant today, were eloquently expressed by Hans Freudenthal¹ in his inaugural address to the first International Congress on Mathematical Education (ICME1), held in Lyon, France, on August 24-31, 1969 – exactly 47 years and 11 months before ICME13 in Hamburg.

Freudenthal's aims are deep, socially sensitive and at the same time concerned with the mathematical well-being of individuals. These goals, in their very different forms and contexts, were and still are pursued in all the ICMEs since then, as well as in many other international, regional and national meetings on mathematics education. Much has been achieved since then, but the road ahead still poses the same challenges in new contexts as well as new and evolving ones.

The concerns, the challenges and the goals are reflected in the very rich program that the ICME organizers worked so hard to put together and which is offered to the international community of mathematics education, through its 1952 papers, 530 posters, 61 invited lectures, 42 workshops, 38 discussion groups and much more.

¹ Freudenthal H. (1969). Allocution du Premier Congrès International de l'Enseignement Mathématique. *Educational Studies in Mathematics*, 2(2/3), pp.135-8

ICMEs has gone a long way since 1969, not only by increasing considerably the number of participants and the number of contributions, but also by including many more countries, supporting many participants from developing countries (via an ad hoc Solidarity Fund), establishing awards for both excellence in research and in the practice of mathematics education and by strengthening the links between mathematicians and mathematics educators. The conferences become more and more attractive as source for exchanging ideas, learning and becoming acquainted with new approaches and projects from all over the world.

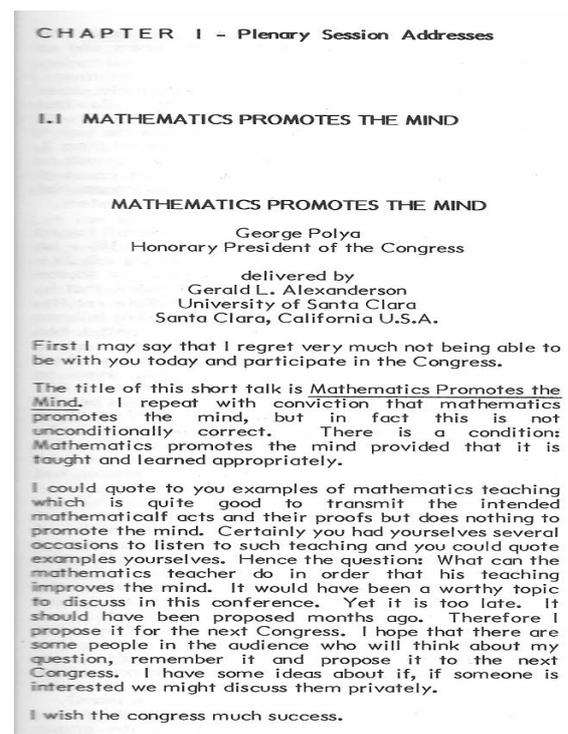
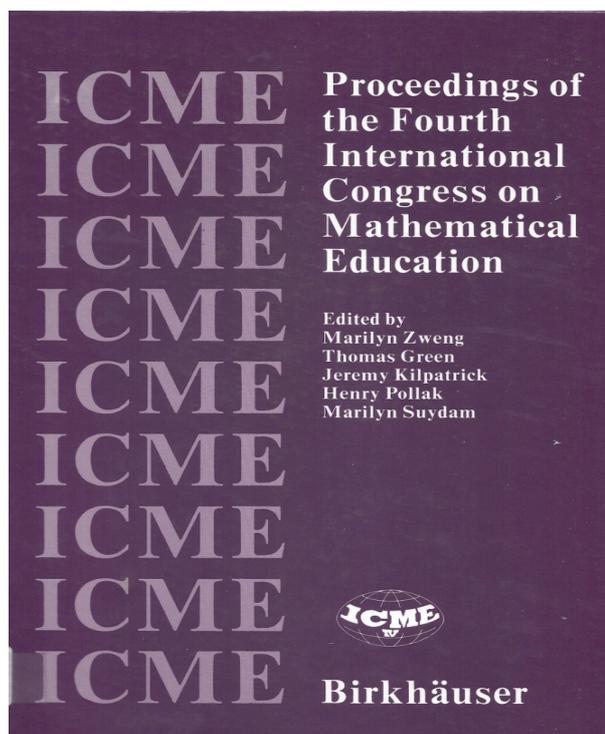
ICME and ICMI gladly endorse and fully adopt Freudenthal's concluding words of his inaugural address at ICME1 greeting the participants, and which today sound as they were when they were pronounced: *"By coming to this place, in such a large number you have proved that mathematical education is a big thing. I am sure this congress will prove that it is a great thing too. On behalf of those who have worked hard to make this congress a success I welcome you and invite you to use this week of scientific and social events as a great opportunity to exchange experiences and ideas, to meet people from nearby and far away, and to enjoy all good things this country and this city can offer you."*

2. ICME's Memorabilia

As mentioned above, ICME1 was held in Lyon France in 1969. ICME2 and ICME3 were held in Exeter (1972) and Karlsruhe (1976). In the first page of the Proceedings of ICME4, which was held in Berkeley, we read "This is the first time in the history of the International Congress on Mathematics Education that all submitted papers have been published in the Proceedings. Over half of the presenters at the Congress are represented in this volume; a total of almost 3000 pages of manuscript was submitted.

Although not comprehensive, the totality of the articles presents a rather clear picture of the state-of-the-art world wide in mathematics education at the time the Congress was held in August of 1980. The Proceedings document, the common concerns of mathematics educators around the globe, and future directions for mathematics education."

The following is a facsimile of the first part of page 1.



3. ICMI's General Assembly

The General Assembly (GA) of ICMI was established in 2006 as the meeting space for the two constituent components of ICMI: the Executive Committee and the ICMI Representatives of the member states. The General Assembly meets every four years for one full day immediately before an ICME conference is inaugurated – this year it will take place in Hamburg on July 24th, 2016 (see http://www.mathunion.org/icmi/icmi/icmi-as-an-organisation/general-assembly/?no_cache=1&sword_list%5B%5D=assembly)

ICMI is very happy that, in its third meeting, 42 country representatives (about half of all the country representatives) confirmed their attendance. This is the largest participation of representatives in a GA.

A main activity to take place at the GA is the culmination of the election process of the upcoming Executive Committee which will take office on January 1st, 2017 for a period of four years. For the election process which spreads over more than a year, please refer to http://www.mathunion.org/fileadmin/IMU/EC/Procedures_ICMI_2006-31-12_2012-01.pdf

The new members of the Executive Committee will be made known during ICME13.

The ICMI Community wishes all its members and friends who attend ICME-13 a successful and productive meeting and safe travels. For our colleagues who cannot attend the meeting, stay tuned, ICMI will do its utmost to disseminate the ideas, initiatives and results presented during the Congress.

4. ICSU

The International Council for Science (ICSU) is a non-governmental organization with a global membership of national scientific bodies (122 Members, representing 142 countries) and International Scientific Unions (31 Members). ICSU's goals are to strengthen international science for the benefit of society, by identifying and addressing major issues of importance to science and society, facilitating amongst scientists across all disciplines and from all countries (regardless of race, citizenship, language, political stance, or gender), and stimulating constructive dialogue between the scientific community and governments, civil society, and the private sector (for more details see, <http://www.icsu.org/>).

The International Mathematical Union (IMU), of which ICMI is a Commission, is a Scientific Union Member of ICSU². The international bodies ICSU and ICMI are working together to establish collaborations given that science education is a major preoccupation of most scientific organizations nowadays.

Recently, ICSU has prepared an interesting report on mathematics education which brings a thought provoking quote from 1908 by Henri

Poincaré who asked: *“Why is it that there are so many spirits who refuse to understand mathematics? Isn't there something paradoxical about this? If mathematics is underpinned by simple principles and logical reasoning that appeal to common sense, why do most people find it obscure? Might there be a contradiction between the nature of the mathematical task and the methods used in its teaching?”*

This quote may sound controversial to some of us, however it reminds us that mathematics education has a great responsibility and much work to do.

The whole ICSU document can be accessed at <http://www.icsu.org/latin-america-caribbean/what-we-do/priority-areas/mathematics-education/a-proposal-from-rolac-to-education-authorities-in-the-region/a-proposal-from-icsu-rolac-to-educational-authorities-in-the-region>

² See

<http://www.icsu.org/publicdb/frmDisplayMember?docid=33a00f3936390731b87da9f649a09a35>

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