

ICTME

International Conference on Technology in Mathematics Education

Beirut (Lebanon), July 5–7, 2000

The *International Conference on Technology in Mathematics Education* will take place at the Lebanese American University at Beirut.

The program will include plenary sessions by invited speakers who are prominent in the field, as well as parallel sessions in the afternoon. Accepted papers will be published in the conference proceedings. In addition, small focus groups to discuss specific themes will be formed to allow for discussion that then will report a summary to the entire conference. The conference includes also a number of hands-on workshops.

The conference will feature the following invited speakers: Celia Hoyles and Richard Noss (University of London, UK), Deborah Hughes Hallett (The University of Arizona, USA), Bernard Winkelmann (Bielefeld University, Germany), Peter Jones (Swinburne University, Australia), and Murdak Jurdak (The American University of Beirut, Lebanon).

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EM 2000

Espace Mathématique 2000

Grenoble, les 15,16 et 17 juillet 2000

L'enseignement des mathématiques, dans les pays francophones, au XX^e siècle, et ses perspectives pour le début du XXI^e siècle

L'initiative du colloque EM 2000 revient à la commission française pour l'enseignement des mathématiques, à l'occasion de l'année mondiale des mathématiques.

Le XX^e siècle a été riche en évolutions, le XXI^e le sera sans doute aussi, au regard des changements profonds que connaissent les systèmes éducatifs et des révolutions technologiques permanentes. Il s'agit donc de préciser et d'analyser les évolutions passées et présentes, sous tous leurs aspects, pour dégager des propositions sur ce que pourrait être l'enseignement des mathématiques dans les prochaines décennies.

Motivations et objectifs

De solides relations entre communautés de mathématiciens, d'enseignants des divers degrés, de formateurs ont été établies au sein de nombreux pays. En parallèle, l'usage de la langue française a favorisé le développement de liens privilégiés entre certains pays. Dans le domaine de l'enseignement des mathématiques, de nombreuses manifestations bilatérales ont eu lieu mais, jusqu'à ce jour, aucun regroupement important n'a donné l'occasion à tous les pays francophones de se rencontrer sur leurs préoccupations communes et d'échanger leurs expériences.

Cette manifestation devrait combler ce manque. Elle sera la première du genre. Tous les pays de la francophonie sont invités à y participer; ainsi que d'autres, où la langue française est, au moins en partie, utilisée dans les échanges sur l'enseignement des mathématiques.

Elle devrait permettre:

- de présenter une vue synthétique de l'enseignement des mathématiques au XX^e siècle
- d'analyser son évolution pour en dégager des perspectives pour l'avenir
- de renforcer les coopérations existantes, d'en créer et développer de nouvelles
- d'assurer le relais entre les générations d'enseignants.

Public

Le contenu du colloque concerne aussi bien l'enseignement mathématique commun des premières années de la scolarité, que ceux plus spécifiques ou plus spécialisés qui le suivent, que leurs finalités soient générales, techniques ou professionnelles. Les participants (environ 300) seront des enseignants des différents degrés, des chercheurs, des formateurs mais aussi des enseignants des autres disciplines, des utilisateurs dans les différents secteurs de l'activité économique ou plus directement des élèves, des étudiants ou des parents.

Les intervenants peuvent être des praticiens de l'enseignement des mathématiques, des chercheurs, des représentants

d'organismes de formation et de recherche, des personnalités déléguées par leur institution ou leur pays.

Thèmes

Dix thèmes ont été retenus:

- Les méthodes pédagogiques, la place de l'élève, du groupe d'élèves, du maître, y compris les technologies éducatives (du tableau noir à l'écran, des tables de Pythagore et de logarithmes à la calculette et au réseau Internet); leurs évolutions
- Etude des programmes d'enseignement (aux divers niveaux) depuis le début du siècle: leurs finalités, leurs élaborations, leur évaluations (changements et invariants), comparaisons entre pays
- Evaluation et contrôle des connaissances; leurs évolutions
- La formation initiale et continuée des enseignants; insertion des jeunes enseignants dans la réalité de l'enseignement
- Mathématiques et acquisition des moyens d'expression, notamment la langue française
- Influences réciproques des mathématiques et de l'informatique
- Les mathématiques et les autres disciplines; leurs différents rôles
- Les mathématiques utilisées dans la vie courante: quelle implication pour l'enseignement des mathématiques au XXI^e siècle?
- Les mathématiques éléments de culture tout au long de l'existence; ethno-mathématiques; mathématiques et média
- Jeux et compétitions mathématiques.

Informations

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HPM2000

History in Mathematics Education: Challenges for a New Millenium

Taipeh (Taiwan), August 9–14, 2000

This meeting of the *International Study Group on the Relations between History and Pedagogy of Mathematics*, a satellite conference of ICME-9, is organized by the Department of Mathematics at the National Taiwan Normal University. The main purpose of this conference is to create a forum entirely for those concerned about the issues of relating history and pedagogy of mathematics.

Some 300 delegates are expected, including 150 international and 150 local participants: historians, mathematicians and mathematics educators as well as teachers from around the island. A strong focus of the meeting is therefore a *dialogue between West and East*, from the insights and experiences of historians, teachers and students in their communities. The plenary lectures include the distinguished historian Karine Chemla, speaking on "The interplay between algorithm and proof in ancient China". Other contributions to the theme of East-West dialogue include presentations from Wang Qian on the characters and influence of traditional Chinese mathematics, and Xu Yibao on Chinese mathematical textbooks, and others.

Another focus of the meeting will be the *use of new technology and non-standard media*, an important theme in mathematics classrooms of the future across the world. A plenary lecture on this topic will be given by the distinguished educator Masami Isoda, on "Teaching with modern technology inspired by the history of mathematics". Other contributions to this theme include a presentation from Yoichi Hirano on the role of mathematics museums in mathematics education.

A third focus of the meeting is the *importance of local mathematics*, that is, of mathematics teachers drawing upon the history of their locality and the cultural traditions of their pupils in devising pedagogic strategies for the future. A plenary lecture on this topic will be given by the distinguished historian and educator Marjolein Kool, on "What can today's pupils learn from 16th century textbooks". Kool speaks particularly to Dutch pupils, as an example of what can be done, and other contributions show analogous work in other contexts, for example the presentation by Lukson Kaino on the development of mathematics in sub-Saharan Africa, and by Abdellah El Idrissi on teaching the sine concept in northern Africa.

A further focus of the meeting is *how the history of mathematics can help the teaching and learning of particular topics in mathematics*. Contributions in this area include presentations from Greisy Winicky Landman on teaching quadratic equations; from Constantinos Tzanakis and Michael Kourkoulos on teaching proof and justification procedures; from Ewa Lakoma on teaching probability and statistics; and from Ada Sherer on calculus teaching.

There will be six symposia:

- History of Asian and Pacific mathematics
- Mathematics education before 1800
- The effectiveness of history in teaching mathematics: empirical studies
- West and East, contrast and transfer of mathematical ideas
- The recommendations made in the ICMI-Study Book
- History of science and science education (especially for local participants).

The official language of the conference is English.

For further information please contact:

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International Conference

Mathematics for Living

Amman (Jordan), Nov. 18–22, 2000

You are invited to join the International Conference on "Mathematics for Living" of the Mathematics Education Into the 21st Century Project, to be held in Amman (Jordan), Nov. 18–22, 2000.

The *Mathematics Education Into the 21st Century Project* was founded in 1986 to promote innovative ideas in all branches of mathematics education, and is coordinated by Alan Rogerson (Australia) and Fayez Mina (Egypt). The project has planned a series of international conferences to be held throughout the world leading into the next millennium. The first of these was held in Egypt in November 1999 (see <http://www.vsg.edu.au/egypt99/>) and will be followed by Jordan in November 2000, Australia in August 2001 and Sicily in October 2002.

The local organizing committee for the Jordan 2000 Conference includes representatives from a Consortium of Jordanian Public Universities and is coordinated by Hanan Innabi of the internationally renowned National Center for Human Resources Development (NCHRD) in Amman, Jordan. The conference will also be supported by the Third World Forum, which is chaired by Ismail-Sabri Abdalla - coordinator of the Project Egypt 2020 and

former director of The Institute of National Planning and former minister of planning (Egypt).

The *official language* of the conference (and of the proceedings) will be English. It is expected, however, that some papers and presentations will be in Arabic, in which case translation facilities will be available for non-Arabic speakers.

The conference theme is *Mathematics for Living* and should attract teachers and researchers in mathematics education from around the world. We welcome papers (in English or in Arabic) that deal with all aspects of mathematics education and relate to innovative ways to help students and teachers deal with the problem of making mathematics more "alive", more "realistic" and more "accessible". This could take the form of a paper on

- problem solving
- use of technology
- new ways of assessment
- ways of dealing with cultural differences
- overcoming gender and social barriers
- improving the curriculum
- using the statistics of everyday life
- effectively utilizing new paradigms in teaching and learning.

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Places are limited so please apply as soon as possible.

CASTME - UNESCO - HBCSE International Conference on Science, Technology and Mathematics Educa- tion For Human Development

Goa (India), February 20–23, 2001

The conference

This international conference originally planned for New Delhi is being organised at Goa jointly by the Commonwealth Association of Science, Technology and Mathematics Educators (CASTME) and United Nations Educational, Scientific and Cultural Organization (UNESCO) through its Project 2000+ in collaboration with the Homi Bhabha Centre for Science Education (HBCSE), TIFR, Mumbai. The conference will focus on Scientific and Technological Literacy (STL) under the broad theme of

the role of Science, Technology and Mathematics Education for Human Development. The Conference aims at providing a forum to educational planners, administrators, teacher educators, teachers and researchers in science, technology and mathematics education to exchange ideas on various themes focussing on the role of science, technology and mathematics education in human development. The conference will also review achievements of the Project 2000+, a project launched in 1993 by UNESCO and International Council of Associations for Science Education (ICASE), in collaboration with Commonwealth Secretariat, Gender and Science and Technology (GASAT), International Organization for Science and Technology Education (IOSTE), International Council of Scientific Unions (ICSU) and World Council of Associations of Technology Education (WOCATE).

The conference will deliberate on the following issues:

- Curriculum reforms for human development
- Assessment and examinations
- Learner-centered professional staff development
- Scientific and technological literacy for all including strategies for teaching
- Popularization, public understanding and life long learning
- Affordable cost-effective technologies and infrastructure
- Bridging the gulf between research and classroom practices
- Empowerment of women

Further information about the conference can be obtained from:

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The conference website is at
<http://www.hbcse.tifr.res.in/icstme.html>