

AFRICME 4 2013

Theme

Towards a Learner Friendly Mathematics Instruction

4th AFRICA REGIONAL CONGRESS

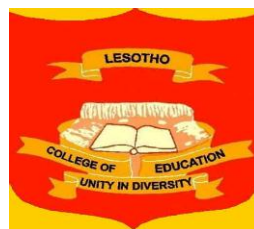
OF THE

**INTERNATIONAL COMMISSION ON MATHEMATICAL INSTRUCTION (ICMI)
[AFRICME 4]**

11-14 June 2013

Maseru, Lesotho

Organized by



Lesotho College of Education
Faculty of Science

Under the auspices of



INTERNATIONAL COMMISSION ON MATHEMATICAL INSTRUCTION (ICMI)

CONGRESS COMMITTEES

STEERING COMMITTEE

SECRETARIAT

(Chairperson)

Nkosinathi Mpalami, nkosinathi.mpalami2@mail.dcu.ie, Lesotho College of Education

(Treasurer)

Lintle Khitsane, Lintlek@gmail.com, Lesotho College of Education

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(Secretary)

Likese 'Mota, dikeses@yahoo.com, Limkokwing University of Creative Technology

(Congress Adviser)

Prof. Mellony Graven, m.graven@ru.ac.za, Rhodes University

INTRODUCTION

The UN through its key constituent UNICEF aims at moving schools and education systems progressively towards quality standards that address the well-being and rights of the child as a learner and the main beneficiary of teaching. Quality standards are aimed at ensuring that all children have access to schools, enjoy staying in school and successfully complete the schooling cycle, and all children benefit from an enriched educational experience so that they all thrive, develop and achieve their full potential. Mathematics is a core subject that needs to play a pivotal role in ensuring that Child Friendly School (CFS) framework becomes a reality in all institutions. Recognising that ICMI's aim is to promote international cooperation in mathematics, AFRICME 4 congress will provide a forum for mathematics educators, teachers, students, mathematicians, researchers, and policy makers in the African continent and beyond to discuss issues and exchange ideas pertaining to the congress theme: **Towards a Learner Friendly Mathematics Instruction.**

PURPOSE OF THE ICMI FOURTH AFRICA REGIONAL CONGRESS

The objectives of the fourth Africa Regional Congress of ICMI are:

- ❖ To promote and encourage the exchange of ideas on how mathematics instruction can contribute to the achievement of Learner Friendly Institutions within the region and beyond
- ❖ Encourage collaborative and/or comparative research in mathematics education at all levels and disseminating the findings for policy consumption
- ❖ To encourage the development of mathematics instructional practices which are learner friendly
- ❖ To provide a forum for mathematics educators, mathematicians, policy makers, students and teachers to collaborate and discuss the current developments in mathematics education useful for Learner Friendly Schools (LFS) Framework.
- ❖ To provide an opportunity for reflection on the three previous AFRICME congresses

CONGRESS THEME

Towards a Learner Friendly Mathematics Instruction

CONGRESS SUBTHEMES

Papers in the following areas are invited:

- ❖ Mathematics education as a critical element in life-long learning or continuous education
- ❖ Teacher preparation and development
- ❖ Multilingualism and mathematics instruction
- ❖ Mathematics knowledge in/for teaching
- ❖ Application of mathematics in real world
- ❖ Instructional, assessment and evaluation issues

WHO SHOULD PARTICIPATE IN AFRICME 4?

The congress invites mathematicians, mathematics educators, teacher educators, teachers, students, curriculum developers, school inspectors, policy makers, researchers, and anybody interested or involved in the teaching and learning of mathematics within the learner friendly instruction framework.

CONGRESS PROGRAMME AND ACTIVITIES

1. Plenary lectures

There will be three plenary lectures covering the following topics:

- ❖ Mathematics teaching and learning for learner friendly schooling
- ❖ Mathematics teacher development
- ❖ Multilingualism in mathematics instruction

2. Plenary speakers

- ❖ Professor John Mason
- ❖ Professor Mamokgethi Setati
- ❖ Professor Michèle Artigue

PROFESSOR JOHN MASON



Prof. John Mason is a professor emeritus at the Open University and a Senior Research Fellow at the Department of Education at the University of Oxford. John developed passion for mathematics ever since he was fifteen when he was asked to tutor a fellow student. He studied BSc at Trinity College, Toronto where he tutored mathematics unofficially and later on officially to his junior students. He then went to Madison Wisconsin where he encountered Polya's film 'Let Us Teach Guessing' and completed a PhD in Combinatorial Geometry. In 1982 he wrote *Thinking Mathematically* with Leone Burton and Kaye Stacey, which has turned into a classic and is still in use in many countries around the world with advanced high school students, graduate teachers in undergraduates. John was first appointed at the Open University where he led the Centre of Mathematics Education in various capacities for fifteen years, which produced the influential *Routes-to-Roots of Algebra*, and numerous collections of materials for teachers at every level. He retired in 2009, but continues to work with people who want to foster and sustain mathematical thinking in themselves and in others.

Plenary: Mathematics teaching and learning for learner friendly schooling.

PROFESSOR MAMOKGETHI SETATI



Prof. Mamokgethi Setati is full professor and Vice Principal of Research and Innovation at the University of South Africa (Unisa). She is also an honorary professor of mathematics education at Wits University. She holds a PhD in Mathematics Education from the University of the Witwatersrand. Kgethi, as she is popularly known, is well known internationally for her research on teaching and learning mathematics in multilingual classrooms. She has published more than 50 reviewed articles and four edited volumes. Her publications have received more than 400 citations. She served as co-chair of the ICMI Study 21 entitled 'mathematics and language diversity'. She has been invited as a plenary speaker and visiting professor at several international conferences and universities in Australia, Botswana, Canada, Denmark, India, Italy, Kenya, Mexico, Mozambique, Namibia, New Zealand, Pakistan, Senegal, South Korea, UK and USA. While she is a scholar of high standing herself, her commitment to mathematics education development extends beyond her own advancement, to the development of the field more generally; especially in South Africa where she initiated and is leading a R60million project to institute mathematics education and numeracy chairs in universities across the country.

Plenary: Multilingualism in mathematics instruction

PROFESSOR MICHÈLE ARTIGUE



After her academic studies at the Ecole Normale Supérieure in Paris, Prof. Michèle Artigue got a PhD in mathematical logics in 1972. Recruited at the mathematics department of the University Paris 7, she progressively entered the field of mathematics education. In 1991, she moved to the University Institute for Teacher Education in Reims where she became full professor, in charge of the mathematics department. In 1999, she came back to the University Paris 7, taking the direction of the IREM, then the direction of the Master program "*Didactique des disciplines*" and of the Doctorate School: "*Savoirs scientifiques : épistémologie, histoire des sciences, didactique des disciplines*". Since September 2010, she is Emeritus Professor at this university. Beyond theoretical contributions on the relationships between epistemology and didactics, her main research areas have been the teaching and learning of mathematics at university level, and especially the didactics of Calculus and Analysis, and the integration of computer technologies into mathematics education. This research has led to the edition or co-edition of books, articles in international journals and contributions to books and other publications. She has also supervised 19 PhD scholars, and given invited lectures outside France. After being Vice-President of the International Commission on Mathematical Instruction (ICMI) from 1998 to 2006, she became its President in 2007, and is since January 2010 an ex-officio member.

Plenary: Mathematics teacher development

3. **Symposia**

There will be symposia presentations that will be spread throughout the first three days of the conference.

4. **Parallel Presentations**

Two types of papers will be presented: **long** and **short** papers.

a. **Long papers**

These papers will be reviewed and should report on research studies or major development projects. Time allocated to each paper will be 40 minutes for presentation (25 minutes for input, 15 minutes for discussion). Author(s) should identify the congress strand their paper is addressing.

- ❖ Papers should be no more than 8 pages, single space, 14 pt Times New Roman font and 2.5 margins all round.
- ❖ Submit: A full 8—page paper as well as a one page abstract, **DUE DATE: 30th December 2012**

b. **Short papers**

Only abstracts will be reviewed. Short papers will cover research in process or theoretical views, and observations on curricula issues or state policies. Time allocated to each paper will be 25 minutes for presentation (15 minutes for input and 10 minutes for discussions). Abstracts should be no more than two pages, single space, 12 pt Times New Roman font and 2.5 margins all round. Author(s) should identify the congress strand their paper is addressing. **DUE DATE: 30th December 2012**

5. **Poster presentations**

Students/teachers will present their research ideas/ongoing projects in poster form.

6. **Workshops for primary and secondary teachers**

To be facilitated by keynote speakers

7. **Networking Breaks**

Networking breaks will be scheduled as part of the week's programme where informal interest groups can get together to meet to discuss collaboration and networking.

8. National Presentations

In December 2002, the United Nations General Assembly through its Resolution 57/254 declared the years 2005 – 2014 as a Decade of Education for Sustainable Development (ESD). ESD is geared towards improving everyone's quality of life, including that of future generations, by reconciling economic growth, social development and environmental protection. Given that we are towards the end of the ESD Decade it is timely for African countries to share and report on their experiences and efforts made to promote ESD within the context of mathematics education. Therefore the responsibility of country coordinators is to make sure that their respective countries submit national reports for presentation during the AFRICME 4 congress. The theme for national presentations is "*Mathematics instruction as an integral component of Education for Sustainable Development (ESD): Country experiences/efforts*". The content of the papers may be organised along the following topics:

- ❖ What efforts have been put in place to integrate ESD within school mathematics curriculum?
- ❖ Teaching and learning mathematics in an enjoyable manner relevant to life outside school while addressing problems of the world
- ❖ Developing various skills (critical and creative thinking, communication, and problem solving strategies) within mathematics education in order to prepare learners to play active role in and contribute to the life of society
- ❖ ESD in mathematics teacher preparation
- ❖ Mathematics instruction in relation to issues of climate change and caring for environment
- ❖ Support, opportunities and challenges in integrating ESD in mathematics instruction

The suggested format for national presentations is given below. Authors are advised to adhere to this format so uniformity could be achieved. The reports should be no more than 15 pages with a 14 point Times New Romans font. **DUE DATE: 30th December 2012.**

National presentation format

Abstract

- ❖ An abstract which is approximately 100-150 words giving an overview of the content in your paper. Clearly state the purpose of the paper and summarize its content.

Introduction

- ❖ Describe the general perspective of your paper and specify its objectives towards the end.

Background

- ❖ Set the context of the paper—your education system and the efforts made in implementing ESD goals.
- ❖ Use literature review to support your perspective and argument.

Main thrust of the paper

- ❖ Issues pertaining to integration of ESD in the various aspects of mathematics education (i.e. curriculum, implementation and teacher preparation and support, challenges and opportunities, etc)

Suggestions and Recommendations on implementing the ESD goals

- ❖ Efforts and developments made towards improving learners' problem solving skills

Conclusion

- ❖ The overall discussion of the paper and concluding remarks

References

- ❖ Strictly follow the APA style of referencing. Use the 5th edition of the APA manual.

COORDINATORS FOR NATIONAL PRESENTATIONS

The responsibility of country coordinators is to make sure that their respective countries submit reports on the developments made in integrating ESD within mathematics teaching.

*All African countries are invited to submit national reports.

REGISTRATION (Registration costs include CD, teas, lunch, and registration package)

Please note that 1 Maloti (M1.00) (Lesotho) = 1 ZAR (R1.00) (South Africa) both currencies are used in Lesotho.

- ❖ Registration fee by February 2013: M1300.00
- ❖ Registration after February 2013: M1400.00

Special rates:

- ❖ Students: M1000.00
- ❖ Local practicing teachers: M1000.00

VISAS AND TRAVELING INFORMATION

Delegates who will require visas to Lesotho are advised to contact the nearest embassy or consulate. If you require a letter for the purposes of applying for a visa then send an email to Nathi Mpalami, nkosinathi.mpalami2@mail.dcu.ie, +266 58842058.

Air travelling participants should book flights landing at Moshoeshoe 1 International Airport. A shuttle service will be available for transportation from the airport to the place of venue at a price of M100.00.

METHOD OF PAYMENT

Direct deposit or money transfer:

Fees may be deposited directly into the Conference bank account. Banking details are as follows:

Account Name:	LESOTHO COLLEGE OF EDUCATION
Name of Bank:	STANDARD LESOTHO BANK
Branch Name:	TOWER BRANCH
Bank Address:	P.O. Box 1393
City &Country:	MASERU, LESOTHO
Account Number:	0140019494201
Type of Account:	CURRENT ACCOUNT
Branch code:	062067
Swift code:	SBICLSMX

As a reference on the deposit slip or transfer notice, please state your full names. Please scan a copy of the deposit slip or transfer notice and e mail it to Mr N. Mpalami at nkosinathi.mpalami2@mail.dcu.ie.

ACCOMODATION COSTS

(All accommodation establishments are within a distance of 5km and delegates will be transported to and from conference venue)

Name of establishment	Physical address	Contact	Rates	Capacity
*Maseru Sun [Conference Venue]	City Centre	+266 2231 2434 www.suninternational.com *(Cite AFRICME 4 Congress – rates negotiated)	Single @US \$140 Double @US \$155	10 Suites 105 Standard Rooms
Black Swan B&B	Hills View	+266 22317700 boeti@blackswan.co.ls *(Cite AFRICME 4 Congress – rates negotiated)	Single @US \$56	16 Rooms
Victoria Hotel	City Centre	+266 22313687 hotelvictoria@leo.co.ls *(Cite AFRICME 4 Congress – rates negotiated)	Single @US \$76 Double @US \$88	6 Executive Rooms 19 Standard Rooms
Foothills Guest House	Maseru West	(+266)58706566 melvin@xsinet.co.za	Single @ US \$49 Double @ US \$69	8 Rooms
Boikhutsong B&B	Hills View	(+266)22315037/62858871 info@boikhutsong.com	Single @ US \$36 Double @ US \$58	13 Rooms
Tribute Guest House	Kofi Anan Road	(+266)22325356/58494922 info@tributelesotho.com	Single @ US \$58 Double @ US \$79	9 Rooms
Mohokare Guest House	New Europa	(+266)22314442 reception@mohokare.co.ls	Single @US \$65 Double @ US \$108	14 Rooms
Lesotho Durham link	Next to Lesotho Agricultural College	(+266)22325166 mamphothulo@yahoo.com	US \$16 per person US \$65 per rondavel	40 Rooms
Anglican Training Centre	Maseru West	(+266)22322046	Double @ US \$40	64 Rooms

AFRICME 4 CORRESPONDENCE DETAILS

All correspondence should be directed to:

Nathi Mpalami

Email: nkosinathi.mpalami2@mail.dcu.ie OR n.mpalami@lce.ac.ls

Telephone: +266 2231 3324 (office) /+266 5884 2058 (mobile)

IMPORTANT DATES

Indication of interest to attend AFRICME 4:	28th September 2012
Conference date:	11 – 14 June 2013
Submission of full long papers:	30th December 2012
Submission of country reports:	30th December 2012
Submission of abstracts for all other presentations:	30th December 2012
Notification on status of abstract:	31st January 2013
Final submission of all final papers:	15th March 2013
Final registration with payment:	29th March 2013