

The Association for Mathematics Education of South Africa

14th Annual National Congress



Mathematics: A Universal Language

30 June to 4 July 2008



Nelson Mandela
Metropolitan
University

for tomorrow

Port Elizabeth, Eastern Cape

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

You are invited to the Fourteenth Annual National Congress of the Association for Mathematics Education of South Africa (AMESA) and to submit contributions around the theme:

Mathematics: A Universal Language

VENUE: Nelson Mandela Metropolitan University, Port Elizabeth, Eastern Cape

DATE: 30 June to 4 July 2008

THE PROGRAMME will include:

1. **Pre-conference computer workshop**

This hands-on workshop will be aimed at novice and intermediate computer users. It will give maths teachers the skills to use collaboration tools, equation editor and spreadsheets in the teaching of Mathematics/Mathematical Literacy. Limited space will be available and booking is essential.

2. **Plenary addresses** by invited speakers (including overseas speakers).

3. **Panel discussions** on various issues faced by Mathematics/Mathematical Literacy teachers these days.

4. **Parallel sessions** presented by participants, in the following areas: Foundation Phase, Intermediate Phase, Senior Phase, FET Phase, Tertiary and Adult Basic Education.

The following formats will be used:

- **Long papers** (40 minutes plus 20 minutes discussion)
- **Short papers** (20 minutes plus 10 minutes discussion)
- **“How I Teach” papers** (20 minutes plus 10 minutes discussion)
- **Workshops** (1 or 2 hours)

5. **Activity centre:** Participants should be able to experience practical activities that provide opportunities for learners to gain knowledge that will enhance concept formation.

6. **Maths Market:** Promotion of their products by commercial vendors.

7. **AMESA Annual General Meeting**

OTHER FEATURES OF CONGRESS 2008:

- | | |
|--------------------------|---|
| • International speakers | • Childcare centre |
| • Excursions | • Daily congress competitions |
| • Photocopying | • Sweatshirts |
| • Transport | • Conference bags |
| • Daily social events | • Activity centre |
| • Internet facilities | • Congress jackets (on special request) |

Eastern Cape Province

The Eastern Cape, lying on the southeastern South African coast, is a region of great natural beauty, particularly the rugged cliffs, rough seas and dense green bush of the stretch known as the Wild Coast. The Province's diverse climate and landscapes range from the dry and desolate Great Karoo to the lush forests of the Wild Coast and the Keiskamma Valley, the fertile Langkloof (renowned for its rich apple harvests) and the mountainous southern Drakensberg region around the town of Elliot. The Eastern Cape's main feature is its spectacular coastline, lapped by the temperate Indian Ocean. With long stretches of unspoilt beaches, rocky coves, secluded lagoons and towering cliffs, it is the Province's main tourist attraction.

At 168 966 square kilometres, the Eastern Cape is roughly the size of Uruguay. It is South Africa's second-largest province after the Northern Cape, taking up 13,9% of land area and with a mid-2006 population of 6,9 million people. The majority of the people speak isiXhosa, followed by Afrikaans and English.

Congress 2008 will take place in the beautiful city of Port Elizabeth, the largest city in the Eastern Cape. Port Elizabeth is part of Nelson Mandela Bay which incorporates the neighbouring towns of Uitenhage and Despatch.

Nelson Mandela Metropolitan University

The Nelson Mandela Metropolitan University (NMMU) is the largest educational institution in the Eastern and Southern Cape, with some 20 000 students enrolled at seven different campuses or delivery sites – five located in the Nelson Mandela Metropole and two in the beautiful city of George. The multi-campus structure enables NMMU to be closely involved with, and geographically closer to, the communities it serves. The main campus of NMMU is situated in Summerstrand, Port Elizabeth. The facilities are spread across seven campuses, and in some cases programmes are duplicated on more than one campus. Congress 2008 will take place at the Summerstrand North Campus in Port Elizabeth.

Contact details

Those interested in presenting papers or conducting workshops should contact the Academic Coordinator:

Hennie Boshoff
Mathematics Department
NMMU
P.O. Box 77000
Port Elizabeth
6031

Tel: +27 (0)41 504 3637
Fax: +27 (0)41 504 2881
E-mail: hennie@amesa.org.za

Complete and mail, e-mail or fax the presentation proposal forms to reach us by no later than 15 February 2008:

AMESA Congress Secretariat
Govan Mbeki Mathematics Development Programme
Mathematics Department
P.O. Box 77000
Port Elizabeth
6031

Tel: +27 (0)41 504 2548
Fax: +27 (0)41 504 2881
E-mail: congress@amesa.org.za

Congress Director

VG Govender (Nico)
Tel: +27 (0)41-4034569
E-mail: nico@amesa.org.za

Congress website

<http://www.amesa.org.za/AMESA2008/>

Local Organising Committee

Members of the AMESA 2008 LOC come from a variety of backgrounds and include teachers, subject advisors and university lecturers. At present the LOC is made up of the following persons:

Hennie Boshoff	Zanele Mofu	David van Rooyen	Martin Dyani
Dave Harper	Lulama Yoyo	Willem van der Riet	Cosmo Baartman
Mzwakhe Sokutu	Vincent Oliphant	Latiefa Bruce	Werner Olivier
Josef Venter	Michael Oh Fond	Thozamile Plaatjie	Hugh Glover
Pragashni Padayachee			

Participation by practising teachers

While all are invited to participate and offer contributions to the programme, participation by practicing teachers is strongly encouraged. Help us make Congress 2008 a celebration of the contribution of teachers to mathematics education.

Maths Market

Publishers, entrepreneurs and NGOs are invited to present and promote their commercial products in a special session called *Maths Market*. Research about such products may be presented as an academic paper, but commercial products should not be directly promoted in academic sessions. Please contact the Secretariat for more details.

Call for papers

You are invited to propose one or more contributions to the programme. To ensure a high standard of presentations and broad based participation, the organising committee:

- Will accept no more than two inputs per presenter.
- Have decided no presentation will be accepted for the programme unless a full transcript or workshop outline has been submitted for reviewing.
- Will adhere to the due dates for submission as this ensures time for useful and relevant reviews of submissions.

To help you in planning and writing your proposal, we include overleaf technical guidelines for preparing a paper. An electronic styles template is available on the congress website.

Deadlines

Offer to present paper(s):	15 February 2008
Submission of papers for reviewing:	28 March 2008
Receive reviewed papers back:	28 April 2008
Early registration:	16 May 2008
Application for financial support:	1 May 2008
Late registration:	13 June 2008 onwards

Start planning for Congress 2008

We look forward to seeing you in Port Elizabeth, Eastern Cape

Guidelines for submission of long papers

Length: 8 – 12 pages

Each long paper will be scheduled a total time of 60 minutes: 40 minutes for oral presentation and 20 minutes for discussion. The following types of papers are suitable for presentation as a long paper:

1. **Research report** This should include the following:
 - A statement about the focus of the paper or the research questions, and a motivation for the significance of the research;
 - An indication of the theoretical framework of the study reported;
 - Discussion of the related literature;
 - An indication of and justification for the methodology used;
 - Some sample data and findings and a statement of how these help to answer the research questions;
 - What your findings mean for mathematics teaching and learning or further research;
 - List of references.
2. **The exposition of a piece of mathematics** These papers could have as an objective the presentation of mathematics, relevant to the school curriculum, such as:
 - An innovative way of dealing with a section of mathematics;
 - Alternative proofs for theorems;
 - Interesting mathematics that teachers are conversant with; Mathematics that is new in the proposed curriculum;
 - List of references.
3. **Theoretical or philosophical essays** These should include the following:
 - A statement about the focus of the paper and a motivation for its significance;
 - An indication of the theoretical or philosophical framework within which the focus or theme of the paper is developed;
 - Reference to related literature;
 - A clearly articulated statement of the author's position on the focus or theme;
 - What your findings mean for mathematics teaching, learning or research;
 - List of references.

Reviewing

Two reviewers, with experience in the area, will review your paper. Specifically reviewers will be asked to comment on the following: mathematical content, theoretical framework and related literature, methodology (if appropriate), statement and discussion of results, clarity and relevance to the AMESA audience. If your paper is not accepted for this category it will automatically be considered as a short paper presentation.

Guidelines for submission of short papers

Length: 5 – 8 pages

Each short paper presentation will be given a total time of 30 minutes: 20 minutes for oral presentation and 10 minutes for discussion. This kind of presentation is most suitable for work in progress.

- 1. Reflection on teaching or practice** This is mainly for mathematics educators who would like to share their reflections on their teaching or on their participation in a developmental project or research project. For reflection on teaching you need to specify the following:
 - The grade and class size;
 - The mathematics topic taught;
 - The mathematical goals and purposes;
 - A description of the lesson;
 - What factors contributed to the success of the lesson;
 - What factors tended to hamper success and how you dealt with them.
- 2. For reflection on participation in a mathematics development project** you should specify the following:
 - The duration of the project;
 - Mathematical aspects covered by the project;
 - Practical examples of how participation in the project impacted on your teaching.
- 3. The exposition of a piece of mathematics** These papers could have as an objective the presentation of mathematics relevant to the school curriculum. For details on this type of presentation, [see \(2\) of the long papers](#).
- 4. Proposals – research or development** This can be a presentation of a proposal for a research or mathematics education developmental project and should include the following:
 - A description of the focus of the research project or developmental project;
 - Motivation for the study or project;
 - Some indication of the theoretical framework of the study or project;
 - Some discussion of the related literature;
 - How the study or project will be undertaken, including some justification of methodology;
 - Participants and time lines;
 - List of references.
- 5. Initial sharing of data** This is mainly for people who have done research and are still working on their analysis. The paper should include the following:
 - A statement about the focus of the paper or the research questions, and a motivation for the significance of the research;
 - Some aspects of the theoretical framework of the study reported;
 - Some discussion of the related literature;
 - An indication of and justification for the methodology used;
 - Some sample data and initial analysis or description of data;
 - List of references.

Reviewing

Two reviewers, with experience in the area, will review your paper. Specifically, reviewers will be asked to comment on the following: mathematical content, conceptual coherence, clarity and relevance to the AMESA audience.

Guidelines for “How I teach” papers

Length: Minimum 1 page and a maximum of 4 pages.

Critical information to be included:

- **Title:** A heading for your paper e.g. How to use paper folding in geometry.
- **Name:** Your Name and Surname
- **Organisation:** Where you are from e.g. the name of your school.
- **Phase:** The phase your talk is aimed at i.e. foundation, intermediate, senior or FET.
- **Introduction:** Include here a paragraph on what your talk is about. Why you chose to talk about it. What you are going to do in the talk.
- **Content:** You might want to write one or two sentences on your experiences of using such activities in your class and some of the advantages or disadvantages of using the activities. Also provide here a brief conclusion on the talk.
- **References:** Add here any references that you might have used. In other words, if you took the activities from a textbook or from the internet, please acknowledge that.

Note:

- There might be other headings you want to include (e.g. “teacher tips”) – please feel free to do so.
- Your paper will be reviewed. Congress 2008 reserves the right to make minor editing changes. If substantial changes to your work are necessary the paper will be returned to you in order to make the changes.

Guidelines for workshop presentations

Length: Maximum of 8 pages of worksheets.

Critical information to be included:

- **Title of the workshop**
- **Name of presenter(s)**
- **Institution where you are employed**
- **Target audience:** The phase your workshop is aimed at e.g. intermediate.
- **Duration:** There will be 1-hour or 2-hour workshop slots. Please ensure that you choose an appropriate length slot.
- **Maximum no. of participants:** You may limit the number of participants in your workshop. Workshop presenters should attempt to cater for at least 30 participants.
- **Description of content of workshop (200 words)**
 - What will be done in the workshop?
 - How will the time slot be broken up?
 - What will participants be doing in the workshop?
- **Motivation for running workshop (100 words)**
 - Why is this workshop important and how will it help participants?

Note:

- Workshops need to be **hands-on sessions** where participants are **actively involved** in doing the activities that you provide for them. Usually these activities will be done in groups, consisting of 3 – 5 participants. There should also be ample time for discussions (approximately 25% of your time is suggested).
- Venues will have loose tables and chairs, an overhead projector and a chalkboard. If you require any other equipment, you need to provide it yourself. (Please contact the conference director if you wish to use a computer laboratory.)
- All worksheets will be printed in a separate volume of congress proceedings. This means that you do not need to bring extra copies of materials unless you require participants to cut, fold etc. any of the pages of worksheets.
- If you have used ideas from other sources, it is essential that you acknowledge these sources. We will *not* accept any submissions where more than 2 pages have been copied directly from another source.
- All materials should be typed and printed on a laser printer if possible.



PRESENTATION PROPOSAL FORM

PLEASE TYPE OR HAND-WRITE
USING ONLY CAPITAL LETTERS

Deadline: 15 February 2008

Mathematics: A Universal Language

Name:

Postal address:

.....

.....

Institution:

Tel: (home) (work)

Fax: (home) (work)

Email:

I would like to offer to present (please tick one or more blocks):

	Foundation Phase	Intermediate Phase	Senior Phase	FET	Tertiary	ABET/ Inset
Full paper						
Short paper						
How I teach						
Workshop (1 h)						
Workshop (2 h)						

Title of paper 1:

Title of paper 2:

Complete and mail, e-mail or fax this form to reach us by no later than 15 February 2008.

AMESA Congress Secretariat
Govan Mbeki Maths Development Programme
Mathematics Department
P. O. Box 77000
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6031

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E-mail: congress@amesa.org.za

Note:

- You may not present more than two inputs.
- The full papers or workshop outline must be submitted for reviewing by **28 March 2008**.
- Please consult the guidelines for preparing your paper.
- This form must also be submitted with your paper.



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Mathematics: A Universal Language

Application for financial support: AMESA Congress 2008

Note: Closing date is 1 May 2008

I,, would like to apply for financial support to attend AMESA Congress 2008.

Surname:

First names:

Postal address:

..... **Code:**

Institution:

Area of interest: (Primary / Secondary / Tertiary)

Tel: (Home) (Work) **Fax:**

E-mail:

Complete 1 and 2 below and take note of 3:

1. I am an AMESA member: YES / NO Membership number:
2. I am able to contribute R..... of the projected R..... costs for my attendance.
3. I undertake to write an article/report on AMESA Congress 2008 which may be published in *AMESA News*.

Signature: **Date:**

Note:

- A typed ½ to 1 page motivation, as well as a detailed budget must accompany this application.
- Preference for funding will be given to paid-up AMESA members who will be participating in the congress programme.

