



## **TENTH NATIONAL CONGRESS**

Potchefstroom Campus (PUK)  
North-West University, Potchefstroom

1 - 4 July 2004

**FIRST ANNOUNCEMENT  
AND  
CALL FOR PAPERS**

*Information with respect to the programme,  
deadlines, guidelines and offers for contributions,  
and application  
for membership and funding*

You are invited to the tenth national Congress of the Association for Mathematics Education of South Africa (AMESA) and to offer contributions around the theme:

***Mathematics as a human activity:  
Present, past, future***

**Venue:** Potchefstroom Campus (PUK)  
North-West University  
Potchefstroom

**Dates:** 1 - 4 July 2004

The programme will include:

1. **Plenary addresses** by invited speakers
2. **Panel Discussions** on various themes (including Mathematical Literacy and FET mathematics) by invited panellists
3. **Discussion groups** on assessment
4. **Parallel sessions** presented by participants

The parallel sessions will be offered in the following areas:  
**Foundation Phase, Intermediate and Secondary, Further Education and Training, and Teacher Education.**

The following formats will be used:

- *Long papers* (40 minutes plus 20 minutes questions)
- *Short papers* (20 minutes plus 10 minutes questions)
- *How I teach sessions* (20 minutes plus 10 minutes questions)
- *Workshops* (1 or 2 hours)
- *Poster session* (1 hour)
- *Exhibition of mathematics projects*

5. **AMESA AGM**



Potchefstroom Campus (PUK)  
North-West University  
Potchefstroom

“Let us think of education as the means of developing our greatest abilities ... which ... can be translated into benefit for everyone and greater strength for our nation.” These sentiments belong to the late president John F. Kennedy, but is also an apt way to describe the spirit in which Potchefstroom University entered into merger negotiations with the University of North-West in 2002. It is the only merger between a historically white (Afrikaans) and a historically black university, and not made easier by the 220 km separating the two main campuses in Potchefstroom and Mafikeng. Despite this, and in the interest of the Potchefstroom University (PUK) and the country, the PUK embraced this challenge as a means of sustaining and developing their strengths to the advantage of the country.

Quality education and research is the PUK's currency and greatest contribution to South Africa. The Potchefstroom campus of the North-West University is more and more acknowledged nationally and internationally as a place of academic repute where quality education is non-negotiable, is known for its effective management, is financially viable and has a sound institutional culture and ethos.

Unity and diversity were pursued at all levels to establish the North-West University as a truly South African institution and, through its various campuses, home to the cultural variety of the country.

## OTHER FEATURES OF CONGRESS 2004

International speakers (from USA & Hungary)

National speakers

Transport (to and from Johannesburg International)

Daily social events

Excursions

Sport facilities

Internet facilities

Photocopying facilities

Exhibitions of mathematics projects

Mathematics activity centre

### Participation by Practising Teachers

While all are invited to participate and offer contributions to the programme - participation by practising teachers is strongly encouraged.

Please give some thought to participating in the exhibition of your learners' projects or presenting a "how do I teach" session, poster or a paper!

## VARIOUS DEADLINES

1. Offer for contributions:

**5 December 2003.**

2. Submission of abstracts and papers for reviewing:

**15 February 2004.**

3. Registration (registration form to follow in second announcement):

**15 April 2004.**

## COSTS

These will be finalised by the time the registration form is posted.

Those who hope to apply for financial support should do so as soon as possible to avoid disappointment.

Discounted registration fees apply for paid up AMESA members.

# GUIDELINES FOR THE SUBMISSION OF PAPERS

**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 and/ or questions. 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.

- (a) 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?
- (b) 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.

## 2. 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 see (2) of the long papers).

## 3. 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) A description of the focus of the research project or developmental project;
- (b) Motivation for the study or project;
- (c) Some indication of the theoretical framework of the study or project;
- (d) Some discussion of the related literature;
- (e) How the study or project will be undertaken, including some justification of methodology;
- (f) Participants and time lines;
- (g) List of references.

## 4. 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) A statement about the focus of the paper or the research questions, and a motivation for the significance of the research;
- (b) Some aspects of the theoretical framework of the study reported;
- (c) Some discussion of the related literature;
- (d) An indication of and justification for the methodology used;
- (e) Some sample data and initial analysis or description of data;
- (f) List of references.

## REVIEWING

Three 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.

## **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 and/ or questions. The following types of papers are suitable for presentation as a long paper:

### **1. Research report**

This should include the following

- (a) A statement about the focus of the paper or the research questions, and a motivation for the significance of the research;
- (b) An indication of the theoretical framework of the study reported;
- (c) Discussion of the related literature;
- (d) An indication of and justification for the methodology used;
- (e) Some sample data and findings and a statement of how these help to answer the research questions;
- (f) What your findings mean for mathematics teaching and learning or further research;
- (g) 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:

- (a) An innovative way of dealing with a section of mathematics;
- (b) Alternative proofs for theorems;
- (c) Interesting mathematics that teachers are conversant with; Mathematics that is new in the proposed curriculum;
- (d) List of references.

### **3. Theoretical or philosophical essays**

These should include the following:

- (a) A statement about the focus of the paper and a motivation for its significance;
- (b) An indication of the theoretical or philosophical framework within which the focus or theme of the paper is developed;
- (c) Reference to related literature;

- (d) A clearly articulated statement of the author's position on the focus or theme;
- (e) What your findings mean for mathematics teaching, learning or research;
- (f) What your findings mean for mathematics teaching, learning or research;
- (g) List of references.

## **REVIEWING**

Three 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. If your paper is not accepted for this category it will automatically be considered as a short paper presentation.

**“HOW I TEACH IT” SESSIONS** (Length: minimum 1 page and a maximum of 4 pages)  
Critical information to be included

**Title:** A heading for your paper

**Name:** (your name)

**Organisation:** (Where you are from e.g. the name of your school)

**Phase:** (The phase your talk is aimed at)

**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:** Include here an outline of or actual copies of the activities or worksheets that you will use in your talk.

Remember not to exceed the four page limit.

**Conclusion:** Provide here a brief conclusion on the talk. You might want to write here one or two sentences on your experiences of using such activities in your class.

**References:** Add here any references that you might have used. In other words, the source where you got your ideas from (e.g. a book, article).

**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 2004 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.

**WORKSHOPS**

**Length:** We will accept a maximum of 8 pages of worksheets for a workshop.

Critical information to be included:

**Title****Name****Affiliation**

**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**

- Max 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**

- Max 100 words
- Why is this workshop important?
- 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 discussion (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 submission 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.

**Other needs**

If you will require special equipment such as data, video or slide projectors (all venues will be equipped with an overhead projector) please notify the congress office when receiving back your reviewed abstract or paper.

## GUIDED POSTER SESSION

In these sessions, presenters are given a 30-minute slot (20 minutes for presentation, 10 minutes for discussion) to report on planned research, ongoing or completed research.

The posters (A1-sized) will be displayed around a large hall.

An extended abstract, including a description of the research to be presented, has to be submitted. The description should include a literature review, methodology and key issues emanating from the research.

Your abstract will be reviewed. Congress 2004 reserves the right to make minor editing changes. If substantial changes to your work are necessary the abstract will be returned to you in order to make the changes.

## TECHNICAL REQUIREMENTS FOR PAPERS

1. Write the paper in English.
2. Type and centre the title (in capitals), author(s), and affiliation(s) of the author(s) in this order.
3. Underline the name of the presenting author.
4. Begin the paper with an abstract of up to ten lines, single-spaced, preferably in italics.
  - iii a maximum of ten pages (including outline, and worksheets - if applicable), but minimum of four pages for workshops, and
  - iv a maximum of three pages for "how I teach" presentations.
  - v a maximum of two pages for poster sessions.
6. Give references in one of the accepted standard forms.
7. Type 1,5 spaced, occupying a frame of 170 by 257 mm. Please use exact dimensions, and fill the entire frame. The original will be reduced by 70% for the proceedings, so use a suitable font when printing. (Recommended font type and size: Times New Roman 12.)
8. Use an ink-jet or laser printer. Avoid dot matrix print, since it is not satisfactory for photocopying.
9. Do not number the pages (*NB: pencil page numbers lightly on*

*the back of each page*).

10. Do not staple the paper.
11. Send THREE copies of the paper to the Congress address. Make sure that at least one of the copies is **camera-ready**. Fax copies will not be accepted. Alternatively send an electronic copy in MS Word to the congress e-mail address.

### IMPORTANT NOTICE

- To ensure a high standard of presentations and broad based participation; the organising committee have decided to accept no more than two inputs per delegate.
- No presentation will be accepted for the programme unless a full transcript (workshop outline) has been submitted for refereeing.

### AMESA CONGRESS 2004 Contact us

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Potchefstroom University  
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Potchefstroom

## AMESA MEMBERSHIP APPLICATION/RENEWAL FORM

1. **Membership Type** Membership No (if Renewal) \_\_\_\_\_  
 Individual  Institutional  Associate (e.g. student)

2. **Surname** \_\_\_\_\_

**First Name** \_\_\_\_\_ **Title** \_\_\_\_\_

3. **Postal Address** \_\_\_\_\_

**Postal Code** \_\_\_\_\_

4. **Tel No.** (\_\_\_\_) \_\_\_\_\_

**E-mail address** : \_\_\_\_\_

5. **For Institutional members only**

Name of Institution: \_\_\_\_\_

**Postal Address** : \_\_\_\_\_

Postal Code \_\_\_\_\_

**Telephone No** (\_\_\_\_) \_\_\_\_\_ **Fax no:** (\_\_\_\_) \_\_\_\_\_

**Designation** of person to whom material should be addressed

(e.g. The HOD Mathematics / Librarian)

6. **Field of Interest:** Foundation / Intermediate & Senior / FET /

Teacher education (**circle one**)

7. **For Student members only** : I hereby declare that I am a full-time, pre-service student at the following Institution :

8. **Payment:** **Individual - R85.00** **Institutional - R250.00**

**Full-time student - R25.00**

Choose one of the following methods of payment (indicate with an X)

Cash R \_\_\_\_\_

I enclose a postal order / cheque for R \_\_\_\_\_ made payable to

AMESA

Credit Card : Please debit my credit card account with R

\_\_\_\_\_

Name of Cardholder: \_\_\_\_\_

Card Number : \_\_\_\_\_

Exp Date : \_\_\_\_\_ 3 Digits on back of Card

: \_\_\_\_\_

Signature : \_\_\_\_\_ Date

: \_\_\_\_\_

Please renew my membership automatically each year by debiting my credit card each year. This authorization will remain valid until AMESA or I cancel it in writing.

Bank Transfer

Bank Details are as follows:

Bank:	ABSA
Branch Code :	632 005
Account No :	1640 146601
Account Name :	AMESA
Type of Account:	Current

**NOTE:** It is of vital importance that you fax a copy of the transfer slip and your renewal statement to the fax number below. This will ensure that your membership renewal is recorded. If this is a renewal, please enter your membership number in the reference section of the deposit slip. The onus will be on you to ensure that the office receives the relevant information.

*Completed application form to be posted (with necessary fee) to*

**AMESA Membership, P O Box 450, WITS, 2050**

Tel: (011) 403-6977

Fax: (011) 339 1937

**Application for Financial Support  
AMESA Congress 2004**

I would like to apply for financial support to attend AMESA Congress 2004.

Surname: .....

First names: .....

Postal address & code:  
.....  
.....

Institution: .....

Area of expertise  
(Primary/Secondary/Tertiary):.....

Tel: ..... (home)..... (work)

e-mail: \_\_\_\_\_

1. I am an AMESA member YES (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 2004, which may be published in AMESA News.
4. I declare that I applied for financial assistance from the following sources:.....

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

N.B.: Preference for funding will be given to paid-up AMESA members who will be participating in the congress programme.

**REPLY SLIP AND/OR OFFER TO PRESENT PAPERS**  
(to be completed even if you do not intend to make any contributions but would like to receive the registration forms)

Name: .....

Postal address: .....  
.....  
.....

Institution: .....

tel ..... (code)..... (h) ..... (w)

fax ..... (code)..... (h) ..... (w)

email .....

I would like to offer (please tick one or more blocks and supply full titles underneath)

	Foundation	Inter-mediate & Senior	FET	Teacher Education	Other (specify)
Long paper					
Short paper					
How I teach					
Workshop 1 hr					
Workshop 2 hr					
Poster session					

Full title(s):.....  
.....  
.....