

**MICROSCOPY SOCIETY OF SOUTHERN AFRICA (MSSA)
MIKROSKOPIEVERENIGING VAN SUIDELIKE AFRIKA (MSSA)**



**47th ANNUAL CONFERENCE
8 – 11 December 2009**

**University of KwaZulu-Natal
Westville Campus**



SECOND CIRCULAR

**Conference Secretariat
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**Email: mssa09@ukzn.ac.za
Website: <http://mssa2009.ukzn.ac.za>**

**Conference Convenor: Dr. James Wesley-Smith
Secretary: Priscilla Maartens
Electron Microscope Unit
E1 04-50
University of KwaZulu-Natal
Westville Campus
Durban 4000**

The University of KwaZulu-Natal will be hosting the 47th Annual Conference of MSSA. It is an ideal forum for researchers and students to present their work to colleagues who also use microscopy as a tool for teaching and research in a wide range of disciplines. An exciting line-up of invited Keynote Speakers from the Material and Life Sciences sharing their cutting-edge research, Technical Forum presenters from academia and industry, and a number of pre- and post-conference workshops set the scene for a most informative event.

Dates

MSSA Pre-Conference Workshops	6 th – 7 th	December 2009
MSSA Technical Forum	8 th	December 2009
MSSA 2009 Conference	9 th – 11 th	December 2009
MSSA Post-Conference Workshops	12 th – 15 th	December 2009

Conference Venue

The conference will be held in the T-Block Lecture Theatre Complex on the Westville Campus of the University of KwaZulu-Natal.

Registration

All delegates are required to register by submitting a completed Registration Form accompanied by proof of payment before 30th October 2009 to qualify for the 'Early Bird Registration' fee. All registrations received after the 30th October 2009 will be accepted subject to paying the late registration fee.

Category Registration	Early Bird Registration	Late Registration
MSSA Technical Forum	R300.00*	R300.00*
MSSA Conference Members (incl. Technical Forum)	R1200.00	R1450.00
MSSA Conference Non-Member (incl. Tech. Forum)	R1400.00	R1650.00
Students and Trade Representatives	R800.00*	R1000.00*
Daily Rate	R400.00**	R500.00**

MSSA Conference Registration Includes:

- Conference Proceedings
- Conference Bag
- Ice Breaker, Braai Evening and Conference Banquet
- Morning and afternoon tea and coffee
- Lunches

* Does not include a hard copy of the Conference Proceedings

** Does not include a hard copy of the Conference Proceedings or evening function

Kindly indicate in the Registration Form should you require a Letter of Invitation to attend MSSA 09.

Workshops

Workshops are planned to run during the. To date, interest has been expressed in organising the following workshops:

Pre-Conference Workshops (6 – 7th December)

Light Microscopy, presented by Phil Robinson (RMS, UK), and microscopes sponsored by Carl Zeiss SA. This workshop will make you realise why the light microscope is perhaps the most abused laboratory instrument ever! The workshop is

ideal for any newcomer to light microscopy, and those experienced users who wish to "raise their game" to the highest standards. Cost R2,000 per person.

SEM Course, presented by renowned microscopist Steve Chapman (Protrain, UK) Almost all you need to know about getting the best from the scanning electron microscope.

Both workshops will be held in the Electron Microscope Unit on the Westville Campus. See conference website <http://mssa2009.ukzn.ac.za> for further details.

Post-Conference Workshops

Advanced Confocal Microscopy Course (12-13th December).

The workshop will be held at the Centre for Electron Microscopy on the PMB Campus, and presented by Dr Kamiar Moin (Director, Microscopy & Imaging Resources Laboratory, Director, Imaging and Cytometry Facility Core, Center in Molecular and Cellular Toxicology with Human Application, Wayne State University School of Medicine, Detroit, USA.) This is a unique opportunity to learn advanced fluorescent microscopy and confocal techniques on the latest Zeiss710 confocal microscope. Besides instruction in live cell imaging, 3D culture, FRET and FRAP, and the use of various free-downloads, instruction will also be given in the preparation and labelling of cell lines, image capture and data processing.

Cryo-EM and Image Processing (14-18 December)

This course will be presented by Professor Pawel Penczek (University of Texas Medical School, Houston, USA) and is part of a series of short courses in Macromolecular Structure Determination.

Let's face it folks: If we don't have a map we are lost!

This is a chance to learn how to visualize macro molecules. The course will be held in the R.W. James Building, Upper Campus, **University of Cape Town**, and is sponsored by the National Research Foundation (NRF). There is no charge for the courses but it is necessary to make a formal application by writing a short description of the macromolecule of which you need to know the structure, and your motivation for studying. Send this information together with your name and the institution to which you are affiliated before October 16th to Miranda.Waldron@uct.ac.za.

See conference website <http://mssa2009.ukzn.ac.za> for further details.

MSSA Technical Forum

The Technical Forum (TF) has deservedly been allocated a full day as a stand-alone session, taking place on Tuesday 8th December 2009. This will allow interested delegates to participate in the Technical Forum without clashes with parallel sessions. The TF format this year has been proposed to be a combination of the conventional TF format and the themed session format used at micro-MSSA in 2007.

Themed Sessions

Three themed sessions are planned to run before lunch. Each of these will consist of a keynote address given by a selected speaker. (Please note that these are 'applications sessions' and not a 'sales pitch'.) At the end of each session, the Chair will open the floor to a panel discussion.

The themes for each session will be selected from the following topics proposed:

Applications for FIB SEM / ion slicing/ ion sectioning
Geological applications of EBSD
Buildings and facilities for new high resolution microscopy applications
Live imaging, key biological/medical topics, or similar

Conventional TF sessions

Two conventional TF format sessions will be held after lunch. Delegates are invited to present 20 min talks on commercial sales promotions (e.g. new equipment) or technical presentations. Delegates interested in presenting talks are requested to submit abstracts by the 16th October to the Conference Secretariat at mssa09@ukzn.ac.za. Instructions to Authors for the Technical Forum abstracts can be found in the Conference website (<http://mssa09.ukzn.ac.za>)

Scientific Programme

The **John Matthews Memorial** will be delivered by Prof. Angus Kirkland from the Department of Materials of the University of Oxford, UK. His research interests include Ultra High Resolution TEM, New approaches to quantitative microscopy and Structural studies of nanocrystals, inorganic oxides and surfaces. Further information on Prof. Kirkland can be found at <http://www.materials.ox.ac.uk/peoplepages/kirkland.html>.

The **Boris Balinsky Lecture** will be presented by Prof. Bonnie Sloane of the Department of Pharmacology, Wayne State University School of Medicine. Prof. Sloane's group has a long-standing interest in the roles of proteases in development and progression of cancer, with an emphasis on breast, colon and prostate cancers. Her research group has been a leader in the implementation of cellular imaging in the protease field. They established new assays to follow proteolysis by live cells over time as they form three dimensional structures in matrices and migrate through the matrices, thus analyzing proteolysis in four dimensions. They have employed these assays to follow the interactions among tumour cells and tumour and tumour-associated cells in an effort to determine whether the various cellular components comprising a tumour use proteolysis to perform their functions. Further information on Dr Sloane's research can be found at <http://www.med.wayne.edu/pharmacology/Sloane.asp>.

Delegates deliver oral and poster presentations along two parallel sessions, viz. Materials Sciences and Life Sciences. Life Sciences presentations will be split into "Structural and Molecular Biology" and "Morphology and Function" rather than across the conventional Botany, Zoology, Microbiology and Medical disciplines. Wherever possible, presenters will be identified from the abstracts submitted to deliver Keynote Address presentations at the beginning of particular themes in each discipline. Oral presentations will be allocated 15 minutes plus 5 minutes for discussion. Poster sessions form an integral part of the conference, and are thus displayed in prominent locations throughout the duration of the meeting, and presented in formally-chaired sessions. The presenters are requested to be at their posters during the allotted time period for a 10 min presentation. Posters should not exceed 1.2m high by 1 m wide.

Abstract Submission

Deadline for abstract submission is ~~31st July 2009~~ **EXTENDED UNTIL 11 SEPTEMBER**. Abstracts can be submitted for consideration either as oral or poster presentations. Please adhere closely to the Instructions to Authors for Conference Abstracts. Each abstract must be accompanied by a duly-completed Programme Questionnaire, and submitted electronically to the Conference Secretariat at mssa09@ukzn.ac.za. Instructions to Authors for the submission of abstracts can be found in the Conference website (<http://mssa09.ukzn.ac.za>). Colourful and informative guidelines to abstract-writing can be found at <http://www.microscopy.org.za/Documents/Faultless%20Conference%20abstract.pdf>.

Student Grants

A limited number of Student Grants are available for students to attend the conference. Candidates should apply directly to Mr Alan Hall *as soon as they know that their abstracts have been accepted but before the end of September*.

Mr Alan Hall
Laboratory for Microscopy and Microanalysis
Natural Sciences Building II
University of Pretoria, PRETORIA 0002
Tel: (012) 420 2075 Fax: (012) 362 5150
E-mail: alan.hall@up.ac.za

Prizes

Conference delegates stand a chance of being awarded various prizes in the categories listed below at the Conference Banquet.

ALS/JEOL Award for the Most Promising Black Microscopist. The winner of this award (**amounting to an estimated R25,000**) will be sponsored to travel abroad and present a paper / poster at an international Conference.

ANASPEC PRIZE – ANAPSEC prize of **R1,000** for the paper or poster that uses microscopy to address an industrial-related problem.

FEI PRIZE OF **R1000** for each of the best papers published in a recognised international Journal for Physical Sciences or Life Sciences during the period July 2007 to June 2009. Candidates need not be members of the Society, but must be resident in Southern Africa. Three reprints and a letter of application, including permanent home address, should be sent before the end of September to:

Mr Alan Hall,
Postal address provided above
e-mail: alan.hall@up.ac.za

FIONA GRAHAM PRIZE of **R1,500** is awarded to students who submit a ‘first-time-accepted-no changes-required’ abstract for the conference.

MARY VEENSTRA PRIZE of **R500** will be awarded for the best poster presentation on any form of microscopy presented at the conference.

SMM TECHNOLOGIES AWARD of **R1,000** for the best paper or poster using confocal microscopy

SMM TECHNOLOGIES prize of **R1,000** for the most innovative technique in microscopy, and/or on the novel use in SA of an established technique.

WIRSAM LIGHT MICROSCOPY PRIZE of an Olympus camera for the best light microscopy oral or poster presentation.

WIRSAM SCIENTIFIC will award a prize of **R850** for the best paper presented by a student author.

WIRSAM TESCAN PRIZE for **R1,000** for the most exceptional presentation at the conference.

Cover Micrograph

You are invited to submit original and aesthetically-pleasing micrographs for the cover of the Conference Proceedings. Kindly submit your entries to mssa09@ukzn.ac.za.

Important Deadlines

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|---|---|
| • Submission of abstracts for the proceedings | 31st July 2009 EXTENDED
UNTIL 11 SEPTEMBER |
| • Cover micrograph competition | 26 th September 2009 |
| • Submission of abstracts to Technical Forum | 16 th October 2009 |
| • Final Circular | October 2009 |
| • Final registration date and payment | 30 th October 2009 |
| • Application for Student Grants | End of September |
| • FEI Prize reprint submissions | End of September |

Social Programme

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|---|--------------------------------|
| Ice Breaker | 8 th December 2009 |
| Braai Evening | 9 th December 2009 |
| Free Evening (Theatre Evening optional) | 10 th December 2009 |
| Conference Banquet & Prize-giving | 11 th December 2009 |

Cost for Accompanying Persons

- | | |
|--------------------|------|
| Ice Breaker: | R200 |
| Braai Evening: | R200 |
| Conference Banquet | R400 |

For any further information please do not hesitate to contact the Conference Secretariat on +27 (31) 260 1584 /1607.

Kind Regards

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