

# PROGRAMME – MSSA 2006

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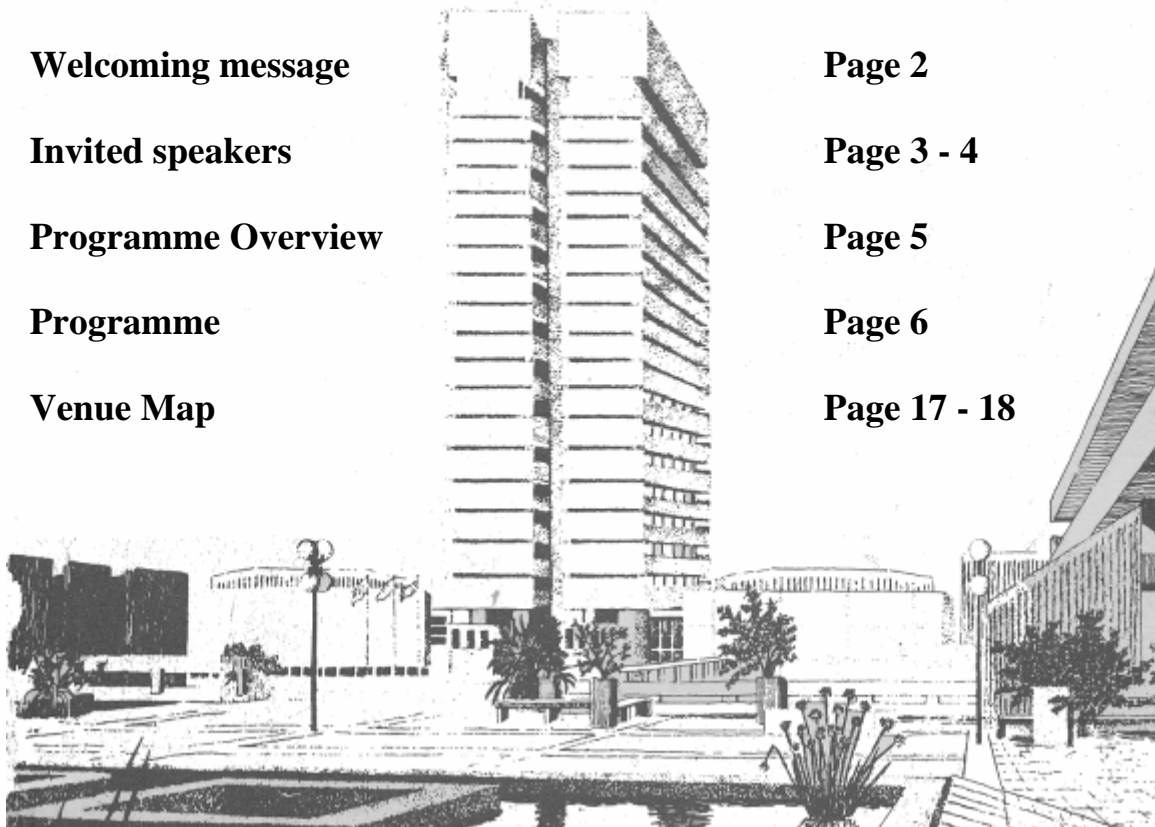
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The organisers sincerely thank our sponsors and commercial supporters who make the annual MSSA Conference a truly memorable event.

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## **WELCOMING MESSAGE FROM THE MSSA PRESIDENT CANDY LANG**



On behalf of the Executive Committee of MSSA, welcome to the 45<sup>th</sup> annual conference of Microscopy Society of Southern Africa! This year we are hosted by the Nelson Mandela Metropolitan University for the first time, although of course the University of Port Elizabeth has hosted wonderful conferences in the past. Jan Neethling and his team have been labouring to maintain the high reputation of UPE for MSSA 2006. I am sure you will not be disappointed.

I would like to extend a special welcome to our invited speakers, who have travelled from both far and near to be with us. Professor Stadelman of the Swiss Federal Institute of Technology in Lausanne will deliver the twenty-ninth John Matthews Memorial Lecture, and has generously agreed to present a tutorial on his latest version of JEMS, a program for the simulation of HRTEM images, diffraction patterns, convergent beam electron diffraction patterns and crystal structures. The twenty-second Boris Balinsky Lecture will be presented by Professor Chinsamy-Turan of the Zoology Department at UCT. In addition to being an eminent paleobiologist, Professor Chinsamy-Turan is President of the Association of South African Women in Science and Engineering and was the 2005 Shoprite Checkers /SABC2 Woman of the Year. Finally, Professor Romano Dallai of the Department of Evolutionary Biology, University of Siena, Italy, will present a special plenary on insect sperm ultrastructure. We are truly fortunate to have such a stellar array of speakers on such a range of subjects.

MSSA is a society that draws members from both the academic and commercial sectors. I believe that the diverse nature of our membership is a great strength of the society; and of course, it is our members from the commercial sector whose sponsorship makes the MSSA conference affordable for the academics! I do urge everyone to visit and support the trade exhibitions and presentations, which promise to be impressive. I particularly want to encourage postgraduate students to engage with the commercial sector and to attend the Technical Forum: you will certainly glean information that is not available in the library.

The MSSA Proceedings are the product of an immense amount of hard work by Trevor Sewell, Tony Bruton, the subject editors and the referees. I want to thank them for their efforts, and also all the delegates who submitted their work for presentation at the conference. MSSA continuously seeks to maintain a high standard in the Proceedings through stringent refereeing, so if your abstract has been accepted for publication – well done! That is an accolade.

To all of you who have put effort into this conference – whether by organising, sponsoring, editing or by bringing your results to MSSA 2006 for presentation – it is finally time to enjoy the fruits of your labours. Have a wonderful time!

Candy Lang

## Twenty-second Boris Balinsky Lecture

Unraveling the biology of extinct vertebrates using bone microstructure

**Anasuya Chinsamy**



Anasuya Chinsamy received her doctorate in 1991 from the University of the Witwatersrand. She has been professor in the Zoology department at the University of Cape Town (UCT) since 1997. In 2004, she became a Fellow of UCT. Anasuya is the recipient of numerous awards of which the most recent ones are the 2005 Shoprite Checkers/SABC2 Woman of the Year (overall winner), 2005 Distinguished Woman Scientist Award, Department of Science and Technology, and the 2005 SAASTA Grant for “ A Celebration of Women in Science”. She was also awarded the Royal Society of South Africa Gold Medal for Research Excellence, 1997-1998. She is the President of the Association of South African Women in Science and Engineering and Vice President of the Academy of Science of South Africa. Anasuya

Chinsamy is the author of the first book entirely devoted to fossil bone microstructure: *The Microstructure of Dinosaur Bone - Deciphering Biology Through Fine Scale Techniques*. She has published extensively in international journals on the mineralised tissue (bones and teeth) of a variety of extinct and extant animals.

## Twenty-ninth John Matthews Memorial Lecture

Structural and optical properties of  
HVPE- MOCVD-ELO gallium nitride

**Pierre A Stadelmann**

Pierre A. Stadelmann was born in Vevey, Switzerland. He received his doctorate in 1977 at the Swiss Federal Institute of Technology (SFIT), Lausanne, Switzerland. After being working as an IBM software engineer and as an engineer at the Centre for Electron Microscopy in Lausanne, he became professor at the Department of Materials Science, SFIT, Lausanne in 1995.



He has been a visiting scientist at various research institutions in the USA, Germany, Spain and France since 1983. He received the Latsis prize in 1998 and the R. et R. Haenny prize in 2002. His research activities focus on the computer simulation of electron microscopy images (high resolution, convergent beam electron diffraction, weak beam, two beams, high angle annular dark field), electron holography and electron energy loss spectroscopy. He has also investigated phase transitions in ferroelectric crystals (PZT), carried out TEM characterizations of GaN thick films grown by HVPE and MOVPE, and of cobalt oxalate nano aggregates, and has been involved with the and DSTEM and EELS imaging of latex particles. He has developed the world-renowned the EMS (Electron Microscopy Image Simulation) commercial software which is used by many international research institutions. He will also present a tutorial/workshop on EMS at this conference.

## Invited Plenary Speaker

Insect sperm ultrastructure: microtubules and dynein arms

### Romano Dallai



Romano Dallai was born in Florence, Italy. He graduated in Agricultural Sciences at the University of Florence. He has been full professor of Zoology in the Faculty of Sciences of the University of Siena since 1965. He was dean of this Faculty from 1981 to 1999, and Director of the Department of Evolutionary Biology for the past 13 years. Romano Dallai is a specialist in insect morphology and ultrastructure concentrating on insect reproduction and sperm ultrastructure. By using cutting edge technologies available in structural biology, he was able to obtain top quality electron micrographs that allowed him and his co-workers to gather a consistent set of ultrastructural information from the sperm flagella from many insect species, as well as from other invertebrates.

He has published over 450 scientific papers, and is on the editorial board of several scientific journals, he is a member of the National Academy of Entomology and various other scientific societies. He is also the editor of *Tissue & Cell* and co-editor of *Zoomorphology*.

### **Welcome to delegates from MSSA 2006 organisers.**

It is our great pleasure to welcome all delegates to MSSA 2006. The previous MSSA conference in Port Elizabeth was held in 1994. We sincerely hope that everything runs smoothly and that all delegates will leave Port Elizabeth well satisfied that their participation in the conference has been worthwhile. A special word of welcome to our plenary speakers, Profs Chinsamy-Turan, Stadelmann and Dallai. A heartfelt THANKS to the sponsors for their generous support.

It is also the first time that the ISO/TC202 Microanalysis meeting is being held in South Africa (and Africa) and in collaboration with the MSSA conference. This meeting is co-hosted by CSIR-NML and NMMU.

With best wishes for a memorable conference

*Jan Neethling and the organising committee*

### **General Information**

(see floor map on page 18 )

Delegates and partners are kindly requested to wear their badges during all conference events and social functions. This is for security reasons. Emergency numbers are printed on the reverse side of the badge. The registration desk will provide information about the internet corner, transport and other general queries.

Medical and Zoological	Botanical Science		Physical Science	Technical Forum	Microbiological Science	
	Wednesday 29th			Thursday 30th		
08:00 - 08:30	Registration					
08:30 - 08:50						
08:50 - 09:00	Welcome and Opening – Hitachi Lecture Theatre			Conference Announcements		
09:00 - 10:00	22 <sup>nd</sup> Boris Balinsky Lecture			29 <sup>th</sup> John Matthews Memorial Lecture		
10:00 - 10:30	Tea			Tea		
Venue	G05	G27	Hitachi	G05	G27	Hitachi
10:30 - 10:50	Mabeta	van der Watt	Botha	Adlem	van Wyk	Knutsen
10:50 - 11:10	Mothi	Sym	Süss	Bruton	Naidoo	Weidow
11:10 - 11:30	Giandhari	Siwela	George	Lee	Gumbo	Witcomb
11:30 - 11:50	Raboobee	Jordaan	Westraadt	Harmsen	White	Glaner
11:50 - 12:10	Joubert	Zbonak	Mshumi		Chunilall	Ndlovu
12:10 - 12:30	Janecke	Maharaj	Ngwenya			Kroon
12:30 - 13:25	Lunch			Lunch		
Venue	Hitachi Lecture Theatre			G05	G40	
13:30 - 13:50	Plenary: Dallai			Yarwood	Topic	
13:50 - 14:10				Baker	Hashe	
14:10 - 14:30				Dickson	Makgere	
Venue	G05	G27	Hitachi			
14:35 - 14:55	van der Horst	Dicks	Tshawe	Blieffert	Mabhali	
14:55 - 15:15	Elias	Nave	Nxumalo		Lee	
15:15 - 15:40	Tea			Tea		
15:40 - 16:00	Madekurozwa	Hodoroaba	Olivier	MSSA AGM		
16:00 - 16:20	Jansen van Rensburg	Andrews	Douglas			
16:20 - 16:40	Van As	Deak				
16:40 - 17:00	Lyle	Lee				
19:00 - late	Braai at Pinelodge			Student Function		
	Friday 1 <sup>st</sup>					
09:00 - 10:00	Plenary : Technical Forum - Vladár					
10:00 - 10:25	Tea					
Venue	Hitachi Lecture Theatre					
10:30 - 10:50	Meincken					
10:50 - 11:10	Procop					
11:10 - 11:30	Song					
11:30 - 11:50	Witcomb					
11:50 - 12:10	Seleka					
12:30 - 14:00	Lunch					
14:00 - 14:10	Punchoo		Khan	Coetzee		
14:10 - 14:20	Adewole			Cronjé		
14:20 - 14:30	van Wilpe			Dhlamini		
14:30 - 14:40	Soley			Tuling		
14:40 - 14:50	Madekurozwa			Westraadt		
14:50 - 15:00	Ozegbe					
15:10 - 16:00	Tea					
19:00 - late	Conference Banquet and Prizegiving - Edward Hotel – sponsored by Apollo Scientific					

## Program: Tuesday, 28 November

9:00 - 17:00	<b>Registration</b>	<b>G 40 Foyer</b>
10:00 - 12:00	<b>ALS SEM Demonstration For Schools</b> Andy Yarwood	<b>G 40 - Hitachi Lecture Theatre</b>
10:00 - 15:00	<b>TEM Image Simulation Workshop</b> Prof Pierre Stadelmann	<b>G 05</b>
10:00 - 15:00	<b>Biological EM Sample Preparation</b> Chris van der Merwe and James Wesley-Smith	<b>G27</b>
12:30 - 13:30	<b>LUNCH</b>	
18:30 - late	<b>Anaspec and Zeiss Icebreaker</b> <b>Welcoming reception</b>	<b>Staff Kraal</b>

## Program: Wednesday Morning, 29 November

08:00 - 08:30	<b>Registration (Foyer, Building 35, G 40)</b>		
08:30 - 09:00	<b>Welcome and Opening</b>		
	<b>Welcome: Prof C Lang (President, MSSA)</b> <b>Official opening: Dr R Stumpf (VC and CEO, NMMU)</b> <b>Conference announcements</b>		<b>G 40</b> <b>Hitachi Lecture</b> <b>Theatre</b>
09:00 - 10:00	<b>Plenary : 22<sup>nd</sup> Boris Balinsky Lecture</b> Unraveling the biology of extinct vertebrates using bone microstructure <b>A. Chinsamy</b> Chair : Candy Lang		
10:00 - 10:30	<b>TEA</b>		
Venue	<b>G 05</b>	<b>G 27</b>	<b>G 40 - Hitachi</b>
<b>Papers</b>	<b>Medical and Zoological Sciences</b>	<b>Botanical Sciences</b>	<b>Physical Sciences</b>
	Chair: Erna van Wilpe	Chair: Chris v/d Merwe	Chair: Japie Engelbrecht
10:30 - 10:50	Assessment of the effects of bleomycin and interferon $\alpha$ -2a on angiogenesis in a human vascular tumour model <u>P. Mabeta</u> , J.T. Soley and P.F. Davis	Surface topography of various legumes with different testa colours <u>N van der Watt</u> , TAS Aveling and CF van der Merwe	Growth of GaInSb epitaxial layers on (001) GaSb substrates <u>L. Botha</u> , T. Krug, J. H. Neethling and J. R. Botha
10:50 - 11:10	Alterations in the papillary dermis of keloid lesions <u>H. Mothi</u> , J. Giandhari, M. Raboobee, A. Madaree and S. Bux	Observations on <i>Dolichomastix tenuilepis</i> from South Africa <u>SD Sym</u>	Microstructural evolution in the Pt-Al-Cr system <u>R. Süß</u> and L.A. Cornish
11:10 - 11:30	Amyloid profile of keloids at the epidermal edge of the lesion <u>J. Giandhari</u> , M. Raboobee, H. Mothi, A. Madaree and S. Bux	Location of Tannins in Finger Millet Grain <u>M Siwela</u> , JRN Taylor, VH Bandu and KG Duodu	Evaluation of the stress relaxation technique for measuring softening kinetics in aluminium alloys <u>S.L. George</u> and R.D. Knutsen
11:30 - 11:50	A morphological study of the dermis of normal scar tissue <u>M. Raboobee</u> , J. Giandhari, H. Mothi, A. Madaree and S. Bux	Unusual wall thickenings in the seed coat of devil's claw <i>Harpagophytum procumbens</i> <u>A. Jordaan</u> and D.D. Shushu	Stacking fault contrast in polycrystalline diamond <u>J.E. Westraadt</u> and J.H. Neethling
11:50 - 12:10	Ultrastructural characterisation of <i>Chlamydia trachomatis</i> pathophysiology on human keratinocytes and cervical epithelium <u>B.C. Joubert</u> , T. Naicker and A.W. Sturm	A comparison of anatomical properties of non-coppiced and coppiced wood in six <i>eucalyptus</i> genotypes <u>A. Zbonak</u>	Effect of ordering on the tensile properties of Pt 5 wt. % Cu <u>C. Mshumi</u> and C.I. Lang
12:10 - 12:30	Creating a database for future identification of prey species from hair in leopard scats <u>B.B. Janecke</u> , K.J. Chaka, G.N. Smit and P.W.J. van Wyk	Relating wood pulp properties to handsheet porosity and mechanical strength <u>S. Maharaj</u> , J. Wesley-Smith and T. Bush	A study of the ternary phases in the Pt-Al-Ru system <u>T. B. Ngwenya</u> , B. Joja, A. Douglas, R. H. Madjoe and L.A. Cornish
12:30 - 13:25	<b>LUNCH</b>		

## Program: Wednesday afternoon, 29 November

13:30 - 14:30	<b>Plenary</b> Insect sperm ultrastructure: microtubules and dynein arms <b>R. Dallai</b> Chair: Gerhard van der Horst	<b>G 40</b> <b>Hitachi Lecture Theatre</b>	
Venue	<b>G 05</b>	<b>G 27</b>	<b>G 40 - Hitachi</b>
<b>Papers</b>	<b>Medical and Zoological Sciences</b> Chair: James Wesley-Smith	<b>Technical forum</b> Chair: Mike Lee	<b>Physical Sciences</b> Chair: Pearl Berndt
14:35 - 14:55	Number of sperm mitochondria and sperm velocity: species specificity and relationships in selected mammals <u>G. van der Horst</u> , L. Maree, S.H. Kotzé and N. Brooks	An Introduction to EBSD and its applications <u>Keith Dicks</u>	A study of the Pt <sub>3</sub> Al, Pt <sub>2</sub> Al and β phases in the Pt-Al system <u>W. Tshawe</u> , A. Douglas, B. Joja and L.A. Cornish
14:55 - 15:15	The arterial microvasculature of the distal ductus deferens, receptaculum ductus deferentis and phallus of the ostrich, as revealed by India ink injection <u>M.Z.J. Elias</u> , T.A. Aire and J.T. Soley	High angular accuracy orientation measurement using EBSD <u>M. D. Nave</u>	Dislocations in Pt <sub>8</sub> V ordered alloys <u>S. Nxumalo</u> and C.I. Lang
15:15 - 15:40	<b>TEA</b>		
Venue	<b>G 05</b>	<b>G 27</b>	<b>G 40 - Hitachi</b>
<b>Papers</b>	<b>Medical and Zoological Sciences</b> Chair: John Soley	<b>Technical forum</b> Chair: Tony Bruton	<b>Physical Sciences</b> Chair: Rob Knutsen
15:40 - 16:00	Ultrastructural features of the shell gland in the immature ostrich ( <i>Struthio camelus</i> ) <u>M-C. Madekurozwa</u>	iMOXS – a microfocus X-ray source for μ-XRF at a SEM <u>V.-D. Hodoroaba</u> , M. Procop, A. Bjeoumikhov and R. Wedell	TEM investigation of neutron irradiated and annealed GaAs - <u>E. J. Olivier</u> and J.H. Neethling
16:00 - 16:20	Site preferences amongst digenetic trematodes from fish in the Okavango Delta, Botswana <u>C. Jansen van Rensburg</u> and J.G. van As	Use of microprobe and Mössbauer techniques to validate predicted base metal partitioning to furnace slag <u>L. Andrews</u>	Crystal structure changes in Pt-based superalloys during in-situ heating - <u>A. Douglas</u> , T. Murakumo, L.A. Cornish and J.H. Neethling
16:20 - 16:40	Extreme parasitism amongst parasitic copepods <u>L.L. Van As</u> and J.G. Van As	Ultrahigh vacuum scanning tunnelling microscopy and Auger electron spectroscopy of metal oxide surfaces <u>D. S. Deak</u> , F. Silly, H. L. Marsh, D. T. Newell, M. S. Marshall, K. Porfyraakis, M. R. Castell	
16:40 - 17:00	Somatic morphology supports the transfer of <i>Austrachelas</i> Lawrence to Gallieniellidae (Arachnida: Araneae) <u>R. Lyle</u> and C.R. Haddad	The “reality” of biological X-ray microanalysis <u>Mike Lee</u>	
19:00 - late	<b>BRAAI AT PINELODGE (Sponsored by ALS)</b> Buses leave residence for Pinelodge at 18:30, return at 23:30		



## Program: Thursday Morning, 30 November

08:50 - 09:00	Conference Announcements – Conference Convener		<b>G 40</b> <b>Hitachi Lecture</b> <b>Theatre</b>
09:00 - 10:00	<b>Plenary : 29<sup>th</sup> John Matthews Memorial Lecture</b> Structural and optical properties of HVPE- MOCVD-ELO gallium nitride <b>P Stadelmann</b> Chair : Jan Neethling		
10:00 - 10:30	<b>TEA</b>		
Venue	<b>G 05</b>	<b>G 27</b>	<b>G 40 - Hitachi</b>
<b>Papers</b>	<b>Technical Forum</b>	<b>Microbiological techniques and applications</b>	<b>Physical Sciences</b>
	Chair: Sara Prins	Chair: Alan Hall	Chair: Alistair Douglas
10:30 - 10:50	Is the correct microanalysis terminology being used in scientific reports? <u>L.H. Adlem</u> and Mike Lee	Solving some yeast growth phenomena using confocal microscopy <u>P.W.J. van Wyk</u> , R.J. Karreman and G.G. Lindsey	Orientation clustering in ferritic stainless steel <u>R.D. Knutsen</u>
10:50 - 11:10	Have we lost the plot? Direction for University EM Units <u>Tony Bruton</u>	Electron microscopy studies of bacteriophages specific to <i>Erwinia carotovora</i> and <i>Ralstonia solanacearum</i> <u>P.V. Naidoo</u> , A. Gubba, M.D. Laing and V. H. Bandu	3DAP analysis of interfaces in WC-Co systems <u>J. Weidow</u> and H.-O. Andrén
11:10 - 11:30	ISO/TC 202 Activities: 2006 Report <u>Mike Lee</u> , Loukie Adlem and Sara Prins	Elucidation of the mechanism of cyanobacteria lysis of <i>Microcystis</i> after exposure to <i>Bacillus mycoides</i> <u>J.R. Gumbo</u> , T.E. Cloete and A.N. Hall	Palladium-poly (5-amino-O-cresol) composite material for heterogeneous catalysis K. Mallick, K. Mondal, <u>M. Witcomb</u> and M. Scurrall
11:30 - 11:50	Site surveys for electron microscopes and people. <u>Luc Harmsen</u>	Anaerobic digester granule variability in their ability to bioaccumulate heavy metals from industrial wastewaters A.R. Howgrave-Graham, E. McDonnell, F.M. Wallis, V.H. Bandu and <u>B.J. White</u>	The 1000°C isothermal section of the Ni-Pt-Ru phase diagram <u>L. Glaner</u> , L.A. Cornish and B. Joja
11:50 - 12:10	A complete detection system – Carl Zeiss NTS Gemini® FE-SEM <u>Uwe Schubert</u>	Cellulose fibril aggregation studies of <i>eucalyptus</i> dissolving pulps using atomic force microscopy <u>V. Chuniwall</u> , J. Wesley-Smith and T. Bush	Characterisation of Pt-rich alloys in the Pt-Al-Nb system <u>G.F. Ndlovu</u> , L.A. Cornish, A. Douglas, B.A. Julies and B. Joja
12:10 - 12:30			Twinning in copper deformed at high strain rates S. Cronje, <u>R.E. Kroon</u> , W.D. Roos, T.J. Cloete and J.H. Neethling
12:30 - 13:25	<b>LUNCH</b>		

## Program: Thursday afternoon, 30 November

Venue	G 05	G 40 - Hitachi
<b>Papers</b>	<b>Technical Forum</b> Chair: Luc Harmsen	<b>Physical Sciences</b> Chair: André Venter
13:30 - 13:50	The latest development in energy filtered SEM technology. <u>Andy Yarwood</u>	The relation between microstructure and residual elastic strain in laser formed steel plates <u>M. Topic</u> , P. McGrath, R. Bucher, A. Korsunsky
13:50 - 14:10	Gemini operating principles for high resolution imaging <u>Neville Baker</u>	The influence of sintering in the presence of nitrogen on the microstructure of a WC-VC-Co hardmetal <u>N.G. Hashe</u> , J.H. Neethling, H-O. Andrén, S. Norgren and P. R. Berndt
14:10 - 14:30	Confocal microscopy with AOTF, AOBS and all the Jazz <u>John Dickson</u>	The effect of thermal shock on the abrasive wear of hardmetals <u>M.F. Makgere</u> , N. Sacks and S. Luyckx
14:30 - 14:50	Advances in SDD detectors for microanalysis <u>Joerg Blieffert</u>	Effect of TiC and TaC on the wear response of WC-6Wt%Co alloys <u>L.A.B. Mabhali</u> , N. Sacks and S. Luyckx
14:50 - 15:10	New TEM instrumentations of Carl Zeiss NTS <u>Uwe Schubert</u>	Metrology evaluation of low voltage SEM-EDX quantitative analysis <u>M.E. Lee</u> , L.H Adlem and M.H. Rossouw
15:10 - 15:40	<b>TEA</b>	
15:40 - 17:00	<b>MSSA AGM</b>	
19:00 - late	<b>STUDENT FUNCTION (Sponsored by SMM) – Veritas Clubhouse</b> <b>Other delegates – Transport to and from Boardwalk available</b>	

## Program: Friday Morning, 1 December

09:00 – 10:00	<b>Plenary : Technical Forum</b> Building Reference SEMs for Accurate Dimensional Measurements <u>András E. Vladár</u> , John S. Villarrubia and Michael T. Postek Chair : Mike Lee	<b>G 40</b> <b>Hitachi Lecture Theatre</b>
10:00 - 10:25	<b>TEA</b>	
Venue	<b>G 40</b>	
<b>Papers</b>	<b>Physical Sciences</b> Chair: Ted Kroon	
10:30 - 10:50	The effect of accelerated weathering on the surface texture of wood <u>M. Meincken</u> and T. Rypstra	
10:50 - 11:10	Combination of electron probe microanalysis and X-ray fluorescence analysis in a scanning electron microscope <u>M. Procop</u> , V.-D. Hodoroaba, A. Bjeoumikhov, F. Eggert and R. Wedell	
11:10 - 11:30	Towards ultimate nano-metrology for multi-layered ultrathin nanofilms by advanced analytical electron microscopy <u>Se Ahn Song</u> , T. Hirano, hiousuck Baik, K. Kaji, kihong Kim and S. Terada	
11:30 - 11:50	Preparation and characterization of CNT- metal composites S. L. Pityana, <u>T. Seleka</u> C. Kruger, K. Labuschagne, M. K. Moodley and L. Rampedi	
11:50 - 12:10		
12:10 - 12:30		
12:30 - 14:00	<b>LUNCH</b>	

## Program: Friday afternoon, 1 December

	<b>Posters</b>	<b>Posters</b>	<b>Posters</b>
	<b>Medical and Zoological Sciences</b>	<b>Plant Sciences</b>	<b>Physical Sciences</b>
	Chair: Gideon Rossouw	Chair: Vijay Bandu	Chair: Mike Witcomb
14:00 - 14:10	Fumonisin B <sub>1</sub> induces death in cultured proximal and distal renal tubule cells <u>R. Punchoo</u> , S. Bux and A.A. Chuturgoon	A sem investigation of foliar secretory trichomes of leaves of <i>drosera capensis</i> L. <u>F. Khan</u> , Y. Naidoo and A. Nicholas	Characterization (EDS, SEM and AFM) of Y <sub>2</sub> SiO <sub>5</sub> :Ce thin films grown with PLD <u>E. Coetsee</u> , H.C. Swart, J.J. Terblans, O.M. Ntwaeaborwa, K.T. Hillie, W.A. Jordaan and U. Buttner
14:10 - 14:20	Quercetin treatment protects against streptozotocin-induced diabetes: Biochemical and immunohistochemical changes of pancreatic β-cells <u>S.O. Adewole</u> , J.A.O. Ojewole and T. Naicker		Oxide growth on copper TEM samples <u>S. Cronje</u> , R.E. Kroon, W.D. Roos and J.H. Neethling
14:20 - 14:30	Ultrastructural characteristics of dermatosparaxis in drakensberger calves <u>E. van Wilpe</u> and D. Holm		SEM and PIXE characterization of non-uniformities in Cu(In <sub>1-x</sub> Ga <sub>x</sub> )(Se <sub>1-y</sub> S <sub>y</sub> ) <sub>2</sub> thin films <u>F.D. Dhlamini</u> , V. Alberts, W.J. Przybylowicz
14:30 - 14:40	Distribution and structural features of Pacinian (Herbst) Corpuscles in the non-glandular region of the palate of the ostrich ( <i>Struthiocamelus</i> ) C. Tivane, <u>J.T. Soley</u> and H.B. Groenewald		A TEM morphology study of HÄGG iron carbide <u>A. S. Tuling</u> , H. E. du Plessis and J. P. R. de Villiers
14:40 - 14:50	An immunohistochemical study of the innervation of the ovary in the emu ( <i>Dromaius novaehollandiae</i> ) <u>M-C. Madekurozwa</u>		Characterization of the microstructure of thermally stable polycrystalline diamond sintered with calcium carbonate <u>J.E. Westraadt</u> , J.H. Neethling, N. Dubrovinskaia and I. Sigalas
14:50 - 15:00	Morphological and immunohistochemical characterization of the testicular capsule and peritubular tissue of ratite birds <u>P.C. Ozegbe</u> , T.A. Aire, M-C. Madekurozwa and J.T. Soley		
15:00 - 15:10			
15:10 - 16:00	<b>TEA</b>		
19:00 - late	<b>CONFERENCE BANQUET and PRIZEGIVING</b> <b>(Sponsored by Apollo Scientific and FEI Company)</b> Dress – Smart Casual Buses leave residence for Edward Hotel at 18:30, return at 23:00		

## Dieter Geppert Retires



Dieter Geppert will be retiring as of 31 December 2006. He will however still be used as a JEOL consultant who can be called upon whenever necessary. Something I think Dieter would like. I think it is a daunting thought that one day you get up and you no longer have a workplace to go to. Advanced Laboratory Solutions would also like to draw on his vast knowledge and experience from time to time.

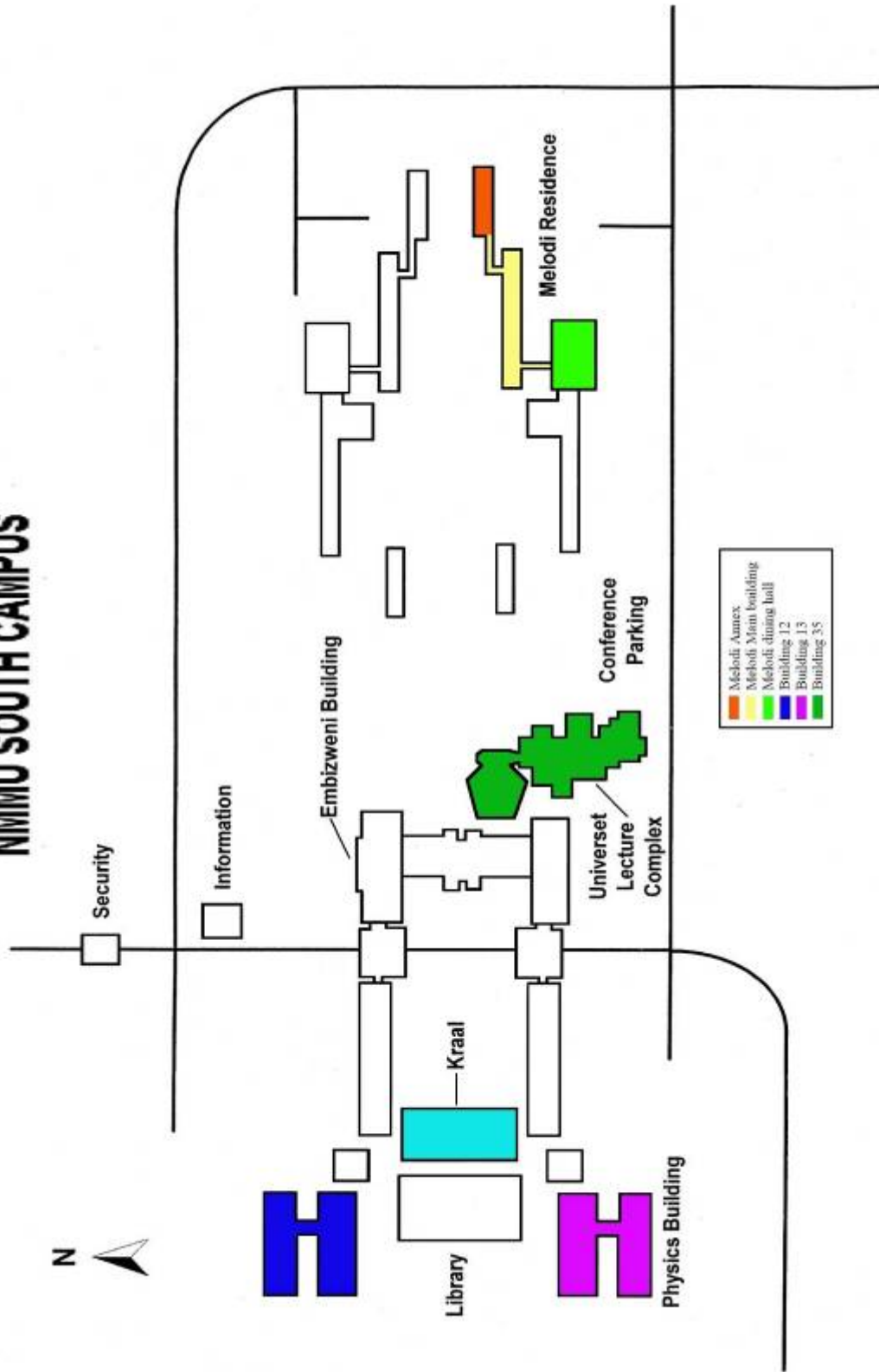
On a lighter note, we have been lucky to know Dieter and work together with him before, he joined ALS. Early memories

of Dieter have been one of a 70's salesperson with a pinstripe 3-piece suit. Later the waistcoat disappeared and finally when he joined us, we managed to get him to wear Golfshirts instead.

For most of his working life with JEOL, Dieter has been Sales, Service and Applications Support for all of JEOL's Electron Optical instruments. More importantly, he has excelled at them all. Dieter has always been one with the customer in mind first and foremost. When a customer had a problem, he would drop everything to ensure that "his" JEOL EM's were up and running. He would sometimes be unhappy that customer's did not look after "his" EM's, a passion rarely seen in the business today.

ALS and JEOL would like to thank Dieter Geppert for his contribution and loyalty. We know that he will not be totally lost to the Electron Microscopy community for some time but we hope that when he does get the time, fully enjoys his retirement at his coastal nest egg.

# NMMU SOUTH CAMPUS



# Universet Lecture Complex – Building 35

