

SANUM

2015

South African Symposium on Numerical and Applied Mathematics

COMPLETE PROGRAMME

Hosted by the Department of Mathematics and
Applied Mathematics, University of Pretoria

30 March to 1 April 2015

www.sanum.co.za

www.up.ac.za/math/sanum2015

Monday 30 March 2015	
8:00-8:45	<i>Registration, Tea and Coffee (Eng I Exhibition Hall)</i>
8:45-9:30	Opening (ENG I 1-1): Prof A Ströh (Vice-Principal: Institutional Planning) Prof JM-S Lubuma (Dean: Faculty of Natural and Agricultural Sciences) Prof R Anguelov (HOD: Mathematics and Applied Mathematics)
9:30-10:30	Plenary Talk: Prof Andre Weideman (ENG I 1-1) Contour Integral Methods for PDE's <i>Chair: JM-S Lubuma</i>
10:30-11:00	<i>Tea Break (Eng I Exhibition Hall)</i>
11:00-12:00	Plenary Talk: Prof Abba Gumel (ENG I 1-1) Mathematical Assessment of the Role of Climate Change on Vector-borne Diseases <i>Chair: R Anguelov</i>
	(Eng I 1-1) Parallel Sessions (Eng I 1-4)
	Chair: M Ali
	Chair: M Banda
12:00-12:30	D Moulton
	S Motsa
12:30-13:30	<i>Lunch (Eng I Exhibition Hall)</i>
13:30-14:30	Plenary Talk: Prof Andrzej Kijko (ENG I 1-1) "Black Swan" events -beyond the realm of expectations <i>Chair: AJ van Zyl</i>
14:30-15:30	(Eng I 1-1) Parallel Sessions (Eng I 1-4)
	Chair: A Kijko
	Special session: Risk analysis and Quantitative Finance
	Chair: J Banasiak
	E Mare
	A Aderogba
	N Nokwara
	M Fasondini*
15:30-16:00	<i>Tea Break (Eng I Exhibition Hall)</i>
	(Eng I 1-1) Parallel Sessions (Eng I 1-4)
	Chair: C Beyers
	Special session: Risk analysis and Quantitative Finance
	Chair: M Basson
16:00-16:30	BF Nteumagne*
	S du Toit*
16:30-17:00	AJ van Zyl
	L Janse van Rensburg*
17:00-17:30	CR Bambe Moutsinga
	C Dufourd*
18:00 –	Welcome Function (Botanical Gardens Behind Botany Building)

Tuesday 31 March 2015	
7:30	<i>Tea and Coffee (Eng I Exhibition Hall)</i>
	(Eng I 1-1) Parallel Sessions (Eng I 1-4)
	Chair: S Motsa
	Chair: A Weideman
8:00-8:30	E Pindza
	J Djoko Kamdem
8:30-9:00	A Tambue
	B Stapelberg*
9:00-9:30	H Gidey*
	NFJ van Rensburg
9:30-10:30	Plenary Talk: Prof Montaz Ali (ENG I 1-1) Transformation-based and differential Equation-based Approaches for Mixed Integer Nonlinear Programming Problems <i>Chair: M Banda</i>
10:30-11:00	<i>Tea Break (Eng I Exhibition Hall)</i>

11:00-12:00	Plenary Talk: Prof Alfred Stein (ENG I 1-1) Advanced remote sensing image analysis with super resolution mapping <i>Chair: I Fabris-Rotelli</i>	
	(Eng I 1-1)	Parallel Sessions (Eng I 1-4)
	Chair: KH Jordaan Special session: Approximation Theory and Applications	Chair: A Stein
12:00-12:30	N Hale	I Fabris-Rotelli
12:30-13:30	<i>Lunch (Eng I Exhibition Hall)</i>	
13:30-14:30	Plenary Talk: Prof Claude Brezinski (ENG I 1-1) Survey of extrapolation methods for linear algebra problems <i>Chair: KH Jordaan</i>	
	(Eng I 1-1)	Parallel Sessions (Eng I 1-4)
	Chair: C Brezinski Special session: Approximation Theory and Applications	Chair: A Stein
14:30-15:00	M Redivo-Zaglia	J Engelbrecht*
15:00-15:30	S Ter Horst	C Janse van Rensburg*
15:30-16:30	<i>Poster Session and Tea Break (Eng I Exhibition Hall)</i>	
	AS Jooste, A Kelil*, KH Lau*, P Sivakumaran*, M Spicer*, SM Stoltz*, MH Tshokotsha*	
	(Eng I 1-1)	Parallel Sessions (Eng I 1-4)
	Chair: M Redivo-Zaglia Special session: Approximation Theory and Applications	Chair: M Chapwanya
16:30-17:00	MR Mitchley	A Hoogkamer*
17:00-17:30	MR Gavhi	T Schmid*
18:00 –	Young Mathematician's Function (Botany 2-26 and 2-27) Guest speaker: Prof Ingrid Rewitzky: Advice to a Young Mathematician	

Wednesday 1 April 2015		
7:30	<i>Tea and Coffee (Eng I Foyer outside ENG I 1-1)</i>	
	(Eng I 1-1)	Parallel Sessions (Eng I 1-4)
	Chair: A Gumel	Chair: S Garba
8:00-8:30	HM Djouosseu-Tenkam	MK Folly-Gbetoula*
8:30-9:00	P Sivakumaran*	RS Herbst*
9:00-9:30	AS Hassan*	OA Jejeniwa*
9:30-10:30	Plenary Talk: Prof Jacek Banasiak (ENG I 1-1) Singularly perturbed systems with non-isolated limit manifolds and applications in mathematical biology <i>Chair: R Anguelov</i>	
10:30-11:00	<i>Tea Break (Eng I Foyer outside ENG I 1-1)</i>	
	(Eng I 1-1)	Parallel Sessions (Eng I 1-4)
	Chair: NFJ van Rensburg	Chair: J Djoko Kamdem
11:00-11:30	B Jacobs	MP Skhosana*
12:30-15:30	<i>Conference Lunch, Prizes, Closing (Sheraton Hotel)</i>	

* denotes students

All abstracts can be found at www.sanum.co.za

Useful information

Information desk

Situated in the Eng I exhibition hall.

Monday: 8:00 - 18:00

Tuesday: During tea time and lunch time.

Abstracts and titles of talks

All abstracts and titles of talks can be found in the booklet you received at registration or at www.sanum.co.za.

Social events

Welcome function: Monday 18:00 in the Botanical gardens.

Young mathematician's function: Tuesday 18:00 in the Botany building.

Conference lunch: Wednesday 12:30 at the Sheraton hotel.

More info and maps can be found in the conference booklet.

Organising committee

For any other questions, please find one of the members of the organising committee:

Prof Roumen Anguelov (Chair)

Prof Nic van Rensburg (Chair)

Dr Inger Fabris-Rotelli (Administrator)

Prof Mapundi Banda

Dr Madelein Basson

Dr Michael Chapwanya

Dr Alta Jooste

Prof Jean Lubuma