

## SAMSA2013 Presentations

Author	Title	Comments	ID	Date	Field
M Hintermueller	Total variation based regularisation in Image restroration; Fast solvers, spacially Regularisation and sparsity enhancing quasi-Norm regularisation	1	12	Mon	NUM
B Oksendal	Model Uncertainty and Robust Duality in Finance	2	29	Mon	FIN
O Jenda	SAMSA Masamu Advanced Study Institute and the Collaborative Research Network	3	85	Mon	EDU
OD Makinde	MHD Nanofluid Bioconvection due to Gyrotactic microorganisms of over a permeable verical plate	4	14	Tue	FLU
Ash Abebe	Robust Estimation of Regression Model Parameters with Applications	5	30	Tue	STA
B Green	Three Gems from the Arithmetic of Fields	6	115	Tue	ALG
HPA Kunzi	The directed span of a $T_0$ quasi metric space	7	7	Wed	TOP
EM Lungu	A stochastics model for in-host malaria parasite infection of red blood cells.	8	69	Wed	BIO
GD Nunno	Quadratic Hedging via Backward Stochastic Differential Equations with Jumps	9	6	Thu	FIN
EM Banda	Some Applications of Graph Theory in Knot Theory	10	31	Thu	GRA
BD Reddy	Finite Element Approximations in Solid and Fluid Mechanics	11	32	Fri	NUM
K Magamba	Counting irreducible polynomials of degree $r$ over $F_q^n$ and Generating Goppa Codes using the Lattice subfields of $F_q^n$	12	17	Mon	ALG
AI Musukwa	Irreducible elements in the ring of integers modulo $n$	13	5	Tue	ALG
AS Bamunoba	A note on order one cyclotomic polynomials	14	35	Tue	ALG
AL Prins	On the split extension ${}^2_9L_3(4)$ of the unitary group $U_6(2)$	15	61	Tue	ALG
M Boguslav	The Solution to the 3-Variable Frobenius Number Problem	16	83	Tue	ALG
W Sakala	Elements of Algebraic geometry and groebner bases	17	110	Tue	ALG

R Ngambi	Characterizing ring of endomorphisms and its centre of finite rank completely decomposable torsion free abelian groups	18	111	Tue	ALG
TC Razafindramahatsioro	On the constant reduction of valued function field in one variable and its automorphism groups	19	122	Tue	ALG
K Magamba	A Hill Cipher Based on the Kish-Sethuraman (KS) Protocol	20	46	Fri	ALG
RL Monaedi	The character table of the maximal subgroup $2^6:(3.S_6)$ in $M_{24}$	21	62	Fri	ALG
B Fain	Frobenius number of n variables of a certain form	22	84	Fri	ALG
S Simelane	Dynamics of the oxygen, carbon dioxide and water interaction across the insect spiracle	23	21	Mon	BIO
EM Mwahi	A shared component latent variable model for modelling spatial variation in health promotion with applications from Namibia	24	38	Mon	BIO
JHB Njagarah	A metapopulation model for cholera transmission dynamics between communities linked by migration	25	45	Mon	BIO
M Kgosimore	Co-infection of HIV-HCV: A theoretical perspective	26	56	Mon	BIO
I Neema	Socio-economic determinant of infant mortality in Namibia, a case study of 2000 and 2006/7 Demographic and Health Surveys (DHS)	27	60	Mon	BIO
F Chirove	Mathematical Model for langerhans cells and HIV evolution	28	75	Mon	BIO
BT Bekele	Cost and impact of ART scale up in the presence of treatment failure and loss to follow up: a modelling perspective	29	77	Mon	BIO
NJ Malunguza	Potential impact of hormonal based ontraceptives on HIV transmission dynamics among heterosexuals	30	3	Tue	BIO
SA Pedro	Modelling the spread of AIDS with transmission from poor clinical settings in Mozambique	31	44	Tue	BIO
JRM King	An ecological agent-based simulation of regional innovation ecosystems	32	82	Tue	BIO
M Mazinu	Estimating HIV treatment coverage in South African ART clinics using a mathematical model	33	87	Tue	BIO
E Koga	A Mathematical model for the treatment effects in the transmisssion dynamics of Plasmodium Malaria	34	90	Tue	BIO
PJ Witbooi	Stability of a stochastic model of an SIR epidemic with vaccination	35	109	Tue	BIO
S Mukosa	A Mathematical Model for the Dynamics of the HIV Related Lymphomas (HRLs)	36	114	Tue	BIO
H Laurie	A mathematical model for investigating Alan Savory's claims concerning management of savana rangeland	37	125	Tue	BIO

N Chiduku	Modeling drug epidemics with saturated response functions in the Western Cape Province of South Africa	38	26	Wed	BIO
H Nampala	Modelling effective HIV antiretroviral therapy in the liver	39	96	Wed	BIO
TM Kaombe	Dealing with Household Correlations in using Survey Data to estimate Risk of Diarrhoea in Under-Five Children in Malawi	40	107	Wed	BIO
M Maliyoni	Modelling the Role of Diagnosis, Treatment and Health Education on Multidrug-Resistant Tuberculosis Dynamics	41	129	Wed	BIO
L Pazvakawambwa	Discrete Time-to-Event Models for age at first sex in Namibia	42	89	Thu	BIO
AAO Otieno	Some insight given by Lie symmetry analysis on simple models in mathematical biology	43	91	Thu	BIO
AK Iddrisu	Bayesian Hierarchical Spatio-Temporal Modelling and Mapping of Tuberculosis in Kenya	44	93	Thu	BIO
VT Chikwapulo	Factors that affect attendance to a malaria candidate vaccine (RTS) study among clients in Lilongwe, Malawi	45	27	Fri	BIO
R Chamboko	A statistical analysis of Voluntary Counselling and Testing (VCT) Data to determine the risk factors for HIV infection in Namibia	46	37	Fri	BIO
WI Wangari	Impact of exogenous reinfection on TB infection in a genetically susceptible population	47	97	Fri	BIO
Z Chazuka	A mathematical analysis of the co-infection of cervical cancer and HIV/AIDS in the presence of intervention	48	101	Fri	BIO
OA Adesina	On the qualitative behaviour of solutions for a certain class of third order nonlinear differential equation	49	8	Fri	DIF
W Sinkala	Modelling via Lie symmetries analysis: some important recipes for solving differential equations	50	66	Fri	DIF
J Mumderanji	Mobile Learning: Transforming Students' Attitude Towards Mathematics	51	68	Mon	EDU
CM Khaliq	New exact solutions and conservation laws of a coupled Kadomstev-Petviashvili system	52	19	Thu	EXA
G Magalakwe	Analytical solutions and conservation laws of the generalised double combined sinh-cosh-Gordon equation	53	58	Thu	EXA
IE Mhlanga	Solutions of the symmetric regularized long wave equations	54	34	Thu	EXA
S Chun	Lagrangian and Hamiltonian approach in the mathematical analysis of the cardiac excitation propagation	55	64	Fri	EXA
M Molati	Symmetry analysis and invariant solutions of the Fisher equation with time-dependent coefficients	56	76	Fri	EXA

M Nansubuga	Dividend maximisation under a ruin constraint in a surplus process compounded with a constant force of interest	57	4	Mon	FIN
K Aase	Recursive utility and disappearing puzzles for continuous time models	58	33	Mon	FIN
O Doctor	Optimal portfolio choice when stock price is a semimartingale	59	40	Mon	FIN
MMG Leboko	Capacity building in Financial Mathematics: The case of Lesotho's Banking Sector as an Emerging Market	60	47	Mon	FIN
A Joseph	Minimizing the Probability of Ultimate Ruin by Excess of Loss Reinsurance and Investments	61	113	Mon	FIN
J Uboe	Experimental economics and bounded rationality	62	1	Tue	FIN
MK Mwale	A Mathematical Model of the Optimal Premium policy of an insurance firm with delay	63	24	Tue	FIN
DC Ikpe	Conditioned Stochastic Differential Equation and Modelling of Financial Information	64	53	Tue	FIN
A Pious	On the Price of Risk Under Regime Switching Exponential $L^{\nu}$ Model: A Case of CGMY Process.	65	112	Tue	FIN
FJ Mhlanga	Computation of Greeks of heston Model using Malliavin calculus	66	116	Tue	FIN
GC Cadogan	Ergodic random fields of confidence	67	128	Wed	FIN
R Kufakunesu	Optimal financing and dividend control of the insurance company with proportional reinsurance policy in a Levy market	68	42	Wed	FIN
D Wilcox	On pricing kernels, information and risk.	69	124	Wed	FIN
PO Chisara	Analysis of optimal return on investment in some niger delta oil field projects: using subordinated Levy price process	70	133	Wed	FIN
HAL Hassan	LIBOR Market Model Versus the Levy LIBOR Market Model	71	121	Thu	FIN
K Moalosi	Pricing of European options when the stock price is being driven by geometric brownian motion	72	72	Thu	FIN
S Mataramvura	Pricing measures and contingent claims classification in an incomplete market	73	123	Thu	FIN
M Zervos	Optimal execution with multiplicative price impact	74	11	Fri	FIN
C Makasu	Maximal exponential inequalities for Bessel processes	75	119	Fri	FIN
O Baraedi	Optimal portfolio strategy with discounted stochastic cash inflows where stock price is a semimartingale	76	71	Fri	FIN
DD Walakira	The well-posedness for the equatorial hydrodynamic model: A case study of Lake Victoria	77	104	Mon	FLU

M Mangwiro	Double Diffusive Heat and Mass Transfer over a vertical plate in the presence of wall suction and chemical reaction	78	13	Tue	FLU
A Tsandzana	Asymptotic behavior of Stokes flow in a thin domain with a moving rough boundary	79	92	Tue	FLU
T Chinyoka	modelling and analysis of shear banded flows of complex fluids	80	118	Tue	FLU
Z Makukula	On a spectral perturbation method for unsteady boundary layer flow of a nanofluid past a stretching sheet	81	98	Wed	FLU
A Amikiya	Flow and reactive transport processes in porous media	82	127	Wed	FLU
K Bragan	On the definition of Regular clique assemblies	83	78	Mon	GRA
P Johnson	Constructively coloring the line	84	80	Mon	GRA
C Jones	Security in Graphs	85	79	Tue	GRA
DJ Erwin	A characterization of essentric sequencesof maximal outer plannar graphs	86	36	Fri	GRA
NB Mumba	Codes, graphs and designs from alternating groups $A_n$ for n odd	87	48	Fri	GRA
J Barnett	The Hall ratio, the fractional chromatic number, and the Mycielski graphs	88	81	Fri	GRA
R Matzke	Edge-Grundy Numbers of Complete Multipartite Graphs I	89	102	Fri	GRA
M DeVilbiss	Edge-Grundy Numbers of Complete Multipartite Graphs II	90	103	Fri	GRA
M Hosseni	Solving the vibration of the current-carrying wire in a magnetic field using variational iteration method	91	9	Mon	NUM
K Muzhinji	The mixed finite element multigrid preconditioned conjugate gradient method for Stokes equations	92	15	Mon	NUM
R Tshelametse	Terminating simplified newton iterations	93	23	Mon	NUM
VM Nawa	Comparison of the EM algorithm and the Quasi-Newton method: an application to mixtures of developmental trajectories	94	67	Mon	NUM
RB Sidje	Functionally fitted Runge-Kutta-Nystrom methods	95	74	Mon	NUM
JC Pedro	On One-Dimensional Arbitrary Higher-Order WENO Schemes for Systems of Hyperbolic Conservation Laws	96	28	Tue	NUM
M Mokgolele	A collocation Method for high frequency scattering by smooth objects	97	49	Tue	NUM

S Motsa	A new interpolation approach for solving Partial differential equations that model non-similar boundary layer flow	98	59	Tue	NUM
H Jafari	The He's Variational Iteration Method and Its modification	99	2	Wed	NUM
C Sam	Iterative methods of finding the multiplicative inverse in Banach Algebras	100	134	Wed	NUM
T Chinyoka	Computational Solution of a 2-D steady non-Newtonian natural convection flow	101	132	Thu	NUM
M Marais	A Glimpse at the Field of Hypersurface Singularities.	102	120	Thu	NUM
E Mwakilama	On finding optimal routes for a distributor with time dependent travel times: A Vehicle Routing Problem.	103	106	Tue	OPT
A Blumenthal	On Stable Matchings	104	108	Fri	OPT
PY Mhone	Modelling the Malawi heavy loader bicycle	105	100	Tue	SOL
PJ Udoh	Plane elasticity problem involving regions of a circular domain	106	99	Thu	SOL
M Lekhutlile	The M/M/1 Queue in a violent space	107	70	Mon	STA
GP Nthoiwa	Analysis of two factor experiments with missing value at random	108	43	Tue	STA
F Rakotondrajao	Permutations and their different statistics	109	131	Tue	STA
G Apfel	Strict extensions of frames and spaces	110	16	Mon	TOP
Zhijian Wu	Morrey Type Banach Spaces and Maximal Operator	111	41	Mon	TOP
P Moile	Symmetries in lightlike hypersurfaces of indefinite Kenmotsu manifolds	112	57	Mon	TOP
K Muzundu	GENERALIZED DOMINATION IN ORDERED BANACH ALGEBRAS	113	130	Mon	TOP
T Bier	Harmonic structures and harmonic density	114	63	Wed	TOP
MA Robdera	Lebesgue-Nikodym Theorem for Vector Valued Additive set functions	115	86	Wed	TOP
I Gonçalves	Brief Presentation of Perverse Sheaves as a subcategory of the derived category of complexes of sheaves	116	117	Wed	TOP
F Rasolofoson	A comparative study on the effect of different fluxes in discontinuous galerkin scheme for 2D shallow water equations.	117	126		

J Wairimu	The impact of the subtle shift and behavioral adaptation of the super mosquito in Western Kenya	118	10		
W Mudzimbabwe	Pricing Arithmetic Asian Options under a Jump Diffussion Process	119	22		
J Prakash	Effects of radiation and Dufour on unsteady MHD mixed convective flow in an accelerated vertical wavy plate with varying temperature and mass diffusion	120	20		
O Makururu	On the Median of Maximal Outerplanar Graphs	121	105		
PG Dlamini	On the comparison between compact finite difference and pseudo-spectral approaches for solving similarity boundary layer problems	122	88		
CA Agyingi	A fixed point theorem in non Archimedean T <sub>0</sub> -quasi-metric spaces	123	18		
VG Masanja	Modelling and simulating the control of polutants loads in lake Kivu using binary logistic regression methods	124	55		
DM Mothibi	On the solutions of higher order modified Boussinesq equation with damping	125	54		
ET Mogorosi	A variational approach to a system of coupled Kortweg-de Vries equations	126	65		
AR Adem	On the exact solutions and conservation laws for a (3+1)-dimensional generalized B-type Kadomtsev-Petviashvili equation	127	50		
KR Adem	On the exact explicit solutions of a generalised (2+1) dimensional zhakarov-Kuznestov-Benjamin-Bona-Mahony(ZK-BBM) equation	128	51		
IA Osinuga	On distance predicting functions inlocation optimisation	129	25		
AH Kara	Noether, Lie and Killing vectors and conservation laws associated with ASD manifolds	130	39		
SCO Noutchie	Global solvability of nonlocal coagulation fragmentation equations with unbounded rates	131	73		
G Magomedze	Assessment of Th1/Th2 paradigm in Mycobacterium avium subspecies paratuberculosis infection in ruminants	132	94		
GR Kelatlegile	Mathematical analysis of HIV and TB co-infection model coupled with vertical transmission	133	95		
<b>Key</b>					
	<b>Confirmed Attendance</b>				
	<b>Attendance Minus Presentation</b>				
	<b>Confirmation of Attendance Pending</b>				
	<b>Cancelled</b>				