

Tuesday, November 22, 2022						
Anfiteatro 2501 - Complexo Pedagógico - Campus Principal da UEM						
<a href="https://zoom.us/j/98075937749?pwd=OEFZbldKNIRZeTJSR3FXSVZrdW1Ndz09">https://zoom.us/j/98075937749?pwd=OEFZbldKNIRZeTJSR3FXSVZrdW1Ndz09</a>						
ID da reunião: 980 7593 7749 Key: 120370						
Time Slot						
10:30-11:30	Arrival and Registration of delegates					
11:30-11:35	Arrival of the his Excellence Minister of the Science Technology and high education and the Rector of UEM					
11:35-11:40	Mozambican Nation Anthem					
11:40-11:45	Introduction of Guests					
10:45-11:55	Overview of the Conference: Chairman SAMSA 2022 LOC					
11:55-12:05	President of SAMSA Remarks					
12:05-12:15	Welcome Address (Vice-Chancellor of UEM: Magnific Prof. Doutor Manuel Guilherme Júnior)					
12:15-12:25	Official opening address - Guest of honour (Minister of the Schience Technology and high education, His Excellence Prof. Doutor Daniel Daniel Nivagara)					
12:25-12:30	Entertainment: Cultural Music					
12:30-13:00	KEYNOTE SPEAKER (Professor Diniz Juizo - Dean of Engeneering - Eduardo Mondlane University): Mathematics for Sciences Technology and Sustainable Developemt					
13:00-13:05	Conference Picture					
13:05-14:30	Health break, Lunch and Networking					
CHAIRPERSON	...					
14:30-15:20	PLENARY SPEAKER 1: (Professor Eduardo Lungu): Is there a possible synergy between HIV and COVID-19?					
ROOM	DMI - C4	DMI - C3	DMI - C2	DMI - C1	DMI - D3	DMI - D2
	ID da reunião: 980 7593 7749 Key: 120370	ID: 843 3137 8155 Key: 834355	ID: 941 1072 6303 Key: 535287	ID: 912 3897 3970 Key: 076306	ID: 974 7550 8924 Key: 804955	ID: 939 5938 4354 Key: FC2022
Link Zoom:	<a href="https://zoom.us/j/98075937749?pwd=OEFZbldKNIRZeTJSR3FXSVZrdW1Ndz09">https://zoom.us/j/98075937749?pwd=OEFZbldKNIRZeTJSR3FXSVZrdW1Ndz09</a>	<a href="https://us06web.zoom.us/j/84331378155?pwd=V2dleY4N1cwQlh6WXB0c3FERGVtUT09">https://us06web.zoom.us/j/84331378155?pwd=V2dleY4N1cwQlh6WXB0c3FERGVtUT09</a>	<a href="https://zoom.us/j/94110726303?pwd=bDRwOERTYWFIQ29mckl4aVlqWS9qZz09">https://zoom.us/j/94110726303?pwd=bDRwOERTYWFIQ29mckl4aVlqWS9qZz09</a>	<a href="https://zoom.us/j/91238973970?pwd=bStXNkYxdVIK1huUE8zUnFmWUZqQT09">https://zoom.us/j/91238973970?pwd=bStXNkYxdVIK1huUE8zUnFmWUZqQT09</a>	<a href="https://zoom.us/j/97475508924?pwd=WUQrd1pWYTIITFJLYldsOEZQbEQvQT09">https://zoom.us/j/97475508924?pwd=WUQrd1pWYTIITFJLYldsOEZQbEQvQT09</a>	<a href="https://zoom.us/j/93959384354?pwd=Z2x0SnNhSW5ucUpER2xmajdhVVR0dz09">https://zoom.us/j/93959384354?pwd=Z2x0SnNhSW5ucUpER2xmajdhVVR0dz09</a>
CATEGORY CHAIRPERSON	Special session in Analysis - 1	Parallel Session 1 - Algebra	Paralel Session in BioStatistics	Paralel Session in Financial Mathematics	Paralel Session in Mathematical Biology	Paralel Session in Mathematics for Engeneering
15:25-15:45	Bashir Ali and A. M. Hamza	Abraham Love Prins	Alfred Musekiwa, Nimasha B. Fernando and Samuel A. Abariga	Farai Julius Mhlanga	Adeunmi Gideon Fareo	Abdullahi Adem
	Fixed Points and Variational Inequality Problems	On the Fischer-Clifford matrices and character table of a group of shape $p^{1+2n} \cdot G$	Effectiveness of vaginal microbicides in preventing HIV transmission	An optimal portfolio and consumption problem: A viscosity solution approach	On the transformation of boundary value problems to initial value problems: The Iterative transformation method	Conservation laws and exact solutions of a coupled variable-coefficient modified Korteweg–de Vries system
15:45-16:05	Abubakar Adamu, Duangkamon Kitkuan, Poom Kumam, Anantachai Padcharoen and Thidaporn Seangwattana	Adolfo Ballester-Bolinches, Sesuai Madanha, Tendai Mudziiri Shumba & Maria Pedraza-Aguilera	Fastel Chipepa, Thatayaone Moakofi and Broderick Oluyede	Betuel Canhanga, Caroline Ogutu and Clarinda Nhangumbe	Alfredo Zacarias Muxlhanga and Sansão Agostinho Pedro	José Pedro, Mapundi Banda e Precious Sibanda
	Approximation method for monotone inclusion problems in real Banach spaces with applications	On products of supersoluble subgroups	The Marshall-Olkin-Odd Power Generalized Weibull-G Family of Distributions with	Weather derivative pricing under two stochastic volatility model	An Agent-Based Model for Studying the Spread of COVID-19 in Population Mobility Patterns Scenarios	A New One-Dimensional Finite Volume Method for Hyperbolic Conservation Laws
16:05-16:25	Ali Raza	David Ssevviiri	Mr Gothatamang Patrick Nthoiwa, Katleho D Makatjane, Ramasaymy Sivasamy and Olusegun Ewemooje	Clarinda Nhangumbe, Ercilia Sousa	Americo Matusse, Michael Chapwanya and Yves Dumont	Kgomotso S. Morupisi and Chris Budd

	Structure results for real Interpolation spaces	Applications of reduced and coreduced modules	Comparison of Parametric methods and Matrix completion methods on recovery of missing data on Ecological data : Case of Principal Component Analysis	A Numerical Study of a Weather Derivatives Model	On Traveling Wave Solution in Spatial Co-Infection System. The Case of Maize Lethal Necrosis	The grazing bifurcations and transitions between periodic solutions in a periodically forced PP04 model for glacial cycles
<b>16:25-16:45</b>	Bashir Ali, Mohammed Suleman Lawan, Abdulhadi Muhammead Hamza	Domingos Djinja, Sergei Silvestrov, Alex Tumwesegye	Mr Gothatamang Patrick Nthoiwa, Katleho D Makatjane, Ramasaymy Sivasamy and Olusegun Ewemooje	Darlington Hove, Rafal Łochowski and Farai Julius Mhlanga	Amosse Chicomo	Manuel Nhangumbe, Andrea Nascetti and Yifang Ban
	An inertial algorithm for approximating solutions of variational inequality and fixed point problems in reflexive Banach spaces	Representations of polynomial covariance commutation relations by linear operators in $L_p$ spaces	Matrix Completion for Ordination methods	Local times of deterministic paths and model-free Càdlàg price paths	Analysis of the epidemiological behavior of COVID-19 over time using mathematical modeling and the effect of application of optimal control	Machine learning models for flood mapping and damage assessment in Mozambique
<b>16:45-17:00</b>	<b>Healthy Break</b>					
<b>17:00-17:20</b>	Basit Ali and Aqsa Butt	Jean Baptiste Gatsinzi	Innocent Maposa	Elias Offen and Stanley Jere	Asha Kalula, Eunice Mureithi, Theresia Marijani and Isambi Mbalawata	Motshidisi Charity Sebogodi, Ben Muatjetjeja and Abdullahi Rashid Adem
	Existence of fixed points of generalized set-valued F-contractions of b-metric spaces	Hochschild cohomology of Sullivan algebras and mapping spaces between manifolds	Using Generalized Structured Additive Regression Models to determine factors associated with and clusters for COVID-19 hospital deaths in South Africa	Optimal Investment, Consumption and Life Insurance Problem with Stochastic Environments	An Age-Structured Model for Transmission Dynamics of Malaria with Infected Immigrants and Asymptomatic Carriers	On the symbolic computation of exact solutions and conservation laws of a generalized (2+1)-dimensional Calogaro-Bogoyavleskii-Schiff equation
<b>17:20 - 17:40</b>	Godwin Chidi Ugwunnadi	Lebogang Bodibe, Letlhogonolo .D. Moleleki and Masood Khalique	Jesca. M Batidzirai, Samuel.OM Manda and Henry. G Mwambi	Cloud Makasu	Davide Cusseddu Anotida Madzvamuse	Tayeb HAMAIZIA
	New modified inertial projection method for bilevel variational inequality and fixed point problems	Exact solutions and conservation laws of a Alice Bob-kp equation	A Multivariate Discrete Time-to-Event Model for Multiple Recurring Events	Sharp maximal inequalities for Bessel processes	On the impact of bulk diffusion on surface patterning in a bulk-surface reaction-diffusion model for cell polarisation	Multistage Optimization Algorithm Using Chaotic Search
<b>17:40 - 18:00</b>	Ibrahim Mohammed and Ma'aruf Minjibir	Oteng Maphane and Jean-Baptiste Gatsinzi	Alberto Mulenga, Marta Faias, Pedro Mota and Joaquim Pina	Siboniso Confrence Nkosi, Farai Julius Mhlanga & Mihail Zervos	Dmitri Alexandrov, Eugenia Makoveeva, Margarita Nikishina and Irina Alexandrova	T.S. Moretlo, B. Muatjetjeja and A.R. Adem
	Inertial algorithm for solution of Hammerstein inclusions in Banach spaces	On the partial computation of the Lie bracket structure of the string homology on a formal elliptic space.	The link between exchange rates and commodity prices is not always the same: Lessons from Mozambique	A model of portfolio-consumption on infinite time horizon	Coagulation of particles based on Smoluchowski's equation with external sources	On the solutions of a (3+1)-dimensional novel KP-like equation

18:00-18:30	All participants	Tshikhudo Lukoto and Heinrich Raubenheimer	Erika Rosseto		Paulo Mabasso	John Fabricius, Salvador Manjate and Peter Wall
	Life and histories of Professor Chidume	PERTURBATION IDEALS AND FREDHOLM THEORY IN BANACH ALGEBRAS	Influenza vaccination in children under five years of age in Brazil 2000-2018: trend, seasonality, and impact on morbidity and mortality		Analysis of the prevalence of anemia and associated factors in Children aged 6 to 59 months in Mozambique	Error estimates for pressure-driven Hele-Shaw flow
ROOM COORDINATOR	Ali Raza	Jean Baptiste Gatsinzi	Alberto Mulenga	Calisto Guambe	Alfredo Zacarias Muxlhanga	Manuel Nhangumbe

**Wednesday, November 23, 2022**

ROOM	DMI - C4	DMI - C3	DMI - C2	DMI - C1	DMI - D3	DMI - D2 STEM Workshop
CHAIRPERSON	...					
08:30-09:20	<b>PLENARY SPEAKER 2: (Professor Sarifa Abdul Magide Fagilde - Deputy Vice Chancellor from Rovuma University): GENDER AND MATHEMATICS: STATUS AND SOCIOCULTURAL CHALLENGES</b>					
CATEGORY CHAIRPERSON	Special session in	Parallel session in Algebra	Paralel Session in	Paralel Session in	Paralel Session in	STEM Workshop
09:20 - 09:40	Jeremiah N. Ezeora	Smegnsh Demelash Yeruk	Retius Chifurira,	Lesiba C Galane	Faraimunashe Chirove	STEM Workshop
	Remembering the Astute	Rational Homotopy Type of	Estimating the risk of	Stochastic differential	On the impact of hierachy of	STEM Workshop
09:40-10:00	Marcelo F. de Almeida	Albert Bii and Julius	Osvaldo Loquiha	Obonye Doctor	Kaisara	STEM Workshop
	Fourier transform decay of	Solution of System of Klein-	Statistical education in	Application of	Modelling Botswana's	STEM Workshop
10:00-10:20	Nozara Sundus,	Andre Swartz and	Knowledge Chinhamu,	Paulina Nangolo and	Isaac Takaidza	STEM Workshop
	Evaluating and estimating	The Jacobson Property in	Investigating currency and	Optimal Portfolio	towards cost effective	STEM Workshop
10:20-10:50	<b>Healthy Break</b>					
10:50-11:10	Sani Salisu, Ma'aruf Shehu	Ben Muatjetjeja	Manuel José Bila,	Calisto Guambe	José Nhavoto	STEM Workshop
	FIXED POINT	Lagrangian formulation of a	GIS BASED SPATIAL	Time-consistent	Mathematical modelling of	STEM Workshop
11:10-11:30	Yae Ulrich Gaba	Chibueze C. Okeke	Neo Dingalo, Broderick	Tlou Luzarus Kubjana,	Notice Ringa and John B. H.	STEM Workshop
	An overview of the m-	Projection and contraction	Topp-leone gompertz	Continuous-time	Foot and Mouth Disease	StEM Workshop
11:30-11:50	Yekini Shehu	Chinedu Izuchukwu	Oliver Bodhlyera,	Winfrida Felix Mwigilwa,	Hellen Machingauta,	STEM Workshop
	Inertial Version of Generalized Projected Reflected Gradient Method	Forward-Reflected-Anchored-Backward Splitting Methods for Monotone Inclusions	Classification of timber genotypes by their behaviour under chemical pulping using piecewise regression and kernel density based clustering	Reflected bsde under Jacod parameters when the obstacle is right upper semi-continuous	COVID-\$19\$ changing the face of the world. Can sub-Saharan Africa cope?	STEM Workshop
11:50-12:10	Yirga Abebe Belay, Habtu	Rundora and Kgomotshwana	Paul Gatabazi, Gaëtan	Paul Kundai Ziwakaya,	Maureen Juga, Farai	STEM Workshop
	An inertial method for	Evaluation of heat	Cryptocurrencies and	Modeling the Effect of	An Ebola virus disease model	STEM Workshop
12:10 - 12:30	Mcedisi Sphiwe Zweni,		Timotheus Brian Darikwa,	Phumlani Dlamini		STEM Workshop
	On convex structures in		A multivariate spatial	Highly Accurate		STEM Workshop

						STEM Workshop
						STEM Workshop
12:30-13:30	LUNCH BREAK & NETWORKING					
CHAIRPERSON	...					
13:30-14:20	PLENARY SPEAKER 4: Professor Marcos Cherinda: Ethnomathematics					
14:30 - 17:20	Tourist visit (starting at Pedagogic University)					
17:30 - 18:30	Samsa Meeting					
19:00 - 22:00	Conference Dinner					
ROOM COORDINATOR	Marcelo de Almeida	Ben Muatjetjeja	Oswaldo Loquiha	Calisto Guambe	Farai Chirove	...
<b>Thursday, November 24, 2022</b>						
ROOM	DMI - C4	DMI - C3	DMI - C2	DMI - C1	DMI - D3	DMI - D2 STEM Workshop
CHAIRPERSON	...					
09:00:10:20	PLENARY SPEAKER 5: Prof. Anotida Madzvamuse: Modeling analysis and simulations of bulk-surface PDEs with application to experimental sciences					
CATEGORY CHAIRPERSON	Parallel session in	Parallel session in Analysis	Paralel session in	Paralel session in Fluid	Paralel session in	STEM Workshop
10:20 - 10:40	Yolanda Mutemwa	Daniel Oluwasegun Adams	Valdemiro Eusebio	Barbara Szomolay	Paulo Joaquim	STEM Workshop
	Definition of an	Boundedness Results for	Risk Factors associated	Computational	COVID-19 Pandemic Model:	STEM Workshop
10:40-11:00	Fernando Mucomole;	L. Y. Haruna, G. C.	Aubrey Ndovie and Doctor	Chaudry	Faraimunashe Chirove	STEM Workshop
	Spatio-temporal variability	Inertial Extrapolation	Quasi-Stationary	Closed-form solutions	transmission pathways of	STEM Workshop
11:00-11:20	Gerald Marewo	Mokaedi V. Lekgari	Bubacarr Bah,	Christina.Majola,	Mahlakwana, Gerald Marewo	STEM Workshop
	A numerical solver for the	Microscopic Numerical	Learning deep linear neural	Exact solutions and	Modelling, analysis and	STEM Workshop
11:20-11:40	Healthy Break					
11:40 - 12:00	Paulo Diniz	Mokhwetha Mabula and Sello Mbambo	Gabin Maxime Nguegnang, Holger Rauhut and Ulrich Terstiege	Anotida Madzvamuse, Lazarus Rundora & Nkhoreng Hazel Sekgothe	Sansao A. Pedro, Frank T. Ndjomatchoua, Peter Jentsch, Jean M. Tchuenche, Madhur Arand and Chris T. Bauch	STEM Workshop
	RELATIVE POSITION OF LINES IN THE SPACE: the computer between what the eyes and the mind see	Properties of Bishop - Phelps cone in a Banach space	Convergence of gradient descent to the global minimum for learning deep linear neural networks	Bulk-surface finite element methods for non-linear semi- parabolic partial differential equations of reaction-diffusion	Conditions for a Second Wave of COVID-19 Due to Interactions Between Disease Dynamics and Social Processes	STEM Workshop
12:00-12:20	Ribas Guambe	Musawenkhosi P. Mkhathshwa	George Anderson,	Stanford Shateyi and	Amsalework Ayele Ejigu and	STEM Workshop
	Language in algebraic	Highly accurate multi-domain	Analysis of Effect of	A numerical analysis on	Distribution of Possible	
12:20-12:40	Alex Alochukwu,	Ndivhuwo Ndou, Phumlani	Jules Clement Mba and	Oke Davies Adeyemo	Phumlani Dlamini	

	On Uniquely Packable Trees	Developing Higher order Unconditionally Positive Finite Difference Method for the Advection Diffusion Reaction Equations	Coping mechanism of spirituality in times of crisis: a sentiment analysis of tweets data	Lie algebra, group-invariant and analytic solutions of a generalized (3+1)-dimensional nonlinear potential Yu-Toda-Sasa-Fukuyama equation in Mathematical Physics	Human papillomavirus prevention: vaccination as strategy for controlling the disease and the existence of a dual-rate effect	
<b>12:40-13:00</b>		S'yanda Mungwe	Samuel Nuugulu	T. Khumaloo, M. S.	Siphokazi Gatyeni,	
		An integral deferred	Application of Machine	Effect of variable	Modelling the Potential	
<b>13:00-14:00</b>	<b>LUNCH BREAK &amp; NETWORKING</b>					
<b>CHAIRPERSON</b>	...					
<b>14:00-14:50</b>	<b>PLENARY SPEAKER 6: Professor Arkadi Ponosov: Neural field models with and without microstructure</b>					
<b>CATEGORY CHAIRPERSON</b>	<b>Paralel session in</b>	<b>Parallel session Analysis</b>	<b>Paralel session Data</b>	<b>Paralel session in Fluid</b>	<b>Paralel session</b>	<b>Paralel session 19</b>
<b>14:50-15:10</b>	Sonwabile Mafunda,	Sivenathi Mbusi, Ben	Ronald Katende, Henry	Samuel Olumide	Tichaona Chikore, Jane K. A.	
	On proximity and	Symmetry classification of a	Deep Learning for Partial	Numerical study of	Modelling the interplay	
<b>15:10-15:30</b>	Tallman Nkgau and	Venuste Nyagahakwa	Mokaedi V. Lekgari	Sandile Motsa		
	Towards Parallel	Sets with the Baire property	Microscopic Numerical	A new overlapping grid		
<b>15:30-15:50</b>	Thebeetsile Jackson Podile,	Vuledzani Makhoshi, Talat	Watson Levensa, David	Julius Marenwa		
	Conservation laws and	Common Attractors of	Friend of a friend models	Solution of Partial		
<b>16:00-16:50</b>	<b>PLENARY SPEAKER 6: Profa. Katherine Perry: Rainbow Spanning Trees in Edge-Colored Complete Graphs</b>					
<b>17:00 - 18:00</b>	<b>Closing Session</b>					
<b>18:00-18:30</b>	<b>Healthy Break</b>					
<b>ROOM COORDINATOR</b>	<b>Ribas Guambe</b>	<b>Timoteo Sambo</b>	<b>Alex Marime</b>	<b>Sandile Motsa</b>	<b>Faray Nyabadza</b>	<b>...</b>

**Friday, November 25, 2022**

<b>09:00 - 16:00</b>	<b>Trip to Ponta de Ouro - Departing from the main Library of UEM</b>
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