Detailed programme

* Indicates a SSACAB funded student
\# Indicates a student scholarship awardee

SUNDAY, 8 SEPTEMBER 2019

Time				
08:00 – 09:00	**Registration**			
09:00 – 10:30	Infectious diseases monitoring and modeling using R **Venue: Auditorium**	Longitudinal and Incomplete Data **Venue: Sugar Bird**	Subgroup analyses in clinical trials: challenges and benefits **Venue: Hadeda**	Get your journal article written and published **Venue: Board Room**
10:30 – 11:00	**Tea break**			
11:00 – 12:30		Workshop continues		
12:30 – 13:30	**Lunch**			
13:30 – 15:00		Workshop continues		
15:00 – 15:30	**Tea break**			
15:30 – 17:00		Workshop continues		

MONDAY, 9 SEPTEMBER 2019

Time			
08:00 – 09:00	Registration		
09:00 – 10:30	**Opening ceremony - Prof Samuel Manda: Director of Biostatistics Research Unit, SAMRC and Chair of the SC**		*Auditorium*
	09:00 – 09:30	Opening remarks	Dr Tarylee Reddy: Chair of the LOC
			Prof Tobias Chirwa: Principle Lead of SSACAB
			Dr Jupiter Simbeye Coordinator of SUSAN
	09:30 – 09:50	Official opening of the conference	Prof Glenda Gray: President of the SAMRC
			Prof Jeffrey Mphahlele: Vice President for Research of the SAMRC
	09:50 – 10:30	Opening keynote address	Prof Geert Molenberghs
10:30 – 11:00	**Tea break**		

11:00 – 12:30	Parallel sessions	
	STS 1: Biostatistical Methods in Clinical Trials	*Venue: Auditorium* *Chair: Din Chen*
	Penalized multivariate t mixed model for multiple longitudinal data analysis	Mohammad Arashi
	A generalized Bayesian nonlinear mixed effects regression model for zero inflated longitudinal count data in tuberculosis trials	Divan Aristo Burger
	Applications of the expected power (statistical assurance) for bioequivalence trials	Arne Ring
	Classifying gene expression data with mixture models	Michelle de Klerk

PS 1: Statistics for high-dimensional data		Venue: Sugar Bird Chair: Ziv Shkedy
11:00 – 11:15	An exploratory analysis of multidimensional binary data using correspondence analysis, non-metric multidimensional scaling and cluster analysis as applied to Biolog EcoPlate data	Sheroline Nombasa Ntushelo
11:15 – 11:30	Geospatial computing of large scale spatial data: Faster computation of the dense spatial matrix	Eustasius Musenge
11:30 – 11:45	High dimensional surrogacy: Modeling and computational aspects	Rudradev Sengupta
11:45 – 12:00	Improving chest x-ray classification using transfer learning	Paul Mwaniki*
PS 2: Applied statistics		Venue: Cape Teal Chair: Henry Mwambi
11:00 – 11:15	Comparison of antimicrobial resistant Neisseria gonorrhea to ceftriaxone and ciprofloxacin using proportional odds model for patients seen at the University Teaching Hospital in Lusaka, Zambia	Priscilla Kapombe*
11:15 – 11:30	A two parameter Rama distribution with applications	Edith Umeh
11:30 – 11:45	Order statistics approach to modeling and prediction of early mood swing	Ajibola Taiwo Soyinka
11:45 – 12:00	Prediction models for newborn complications at birth: comparing multinomial logit models and supervised machine learning algorithm Naïve-Bayes classification methods	Paul Mubiri
12:00 – 12:15	Causal inference for multiple outcomes for observational studies	Halima Twabi*
PS 3: Survival analysis		Venue: Hadeda Chair: Samuel Manda
11:00 – 11:15	Modelling cure fractions for complex hazard functions in a cancer study	Peter Koleoso
11:15 – 11:30	Prediction of family state occupancy in rural South Africa using multistate transition modeling	Jesca Mercy Batidzirai*
11:30 – 11:45	Modelling CD4 Count and mortality in a cohort of patients initiated on HAART	Nobuhle Mchunu*
11:45 – 12:00	Modelling recurrent events data for hypertension and diabetes control in a peri-urban area in South Africa	Charl Janse van Rensburg
12:00 – 12:15	Risk of hepatic injury among adult patients concomitantly on statin and statin interacting drugs: A self-controlled case-series analysis using an electronic health database	Henry Athiany

12:30 – 13:30   **Lunch**

13:30 – 15:00	Parallel sessions	
	STS 2: Biostatistics capacity building in sub-Saharan African countries in the era of increasing Biomedical Research in the region	*Venue: Auditorium* *Chair: Misrak Gezmu*
	Moi-Brown Partnership for Biostatistics Training in HIV	Ann Mwangi
	Sharing experiences in developing and implementing the MSc Biostatistics program at Stellenbosch University	Taryn Young
	Building Biostatistics research leadership for Africa through pooling of limited and sparse resources: A case of DELTAS Africa	Tobias Chirwa
	Building Biostatistics Capacity in South Africa: The role of the SAMRC Biostatistics Unit	Tarylee Reddy
	Discussant	Samuel Manda
	Discussant	Misrak Gezmu
	PS 1: Applied statistics	*Venue: Sugar Bird* *Chair: Jupiter Simbeye*
13:30 – 13:45	Modelling the force of infection for hepatitis B among heterogeneous groups reporting at Tertiary Hospital, Ghana	Emmanuel Kweku Nakua
13:45 – 14:00	Factors responsible for safe sex practice among female adolescent, A case study of the University of Fort Hare students	Makhadimola Rosa Leshabane
14:00 – 14:15	Evaluations of error in variable regression methods for the analysis of ECG data	Arne Ring
14:15 – 14:30	Factors associated with modern family planning (MFP) use among women age 15-24 years in Uganda	Glorious Atukunda
14:30 – 14:45	Some new nonlinear growth models for biological processes based on hyperbolic sine function	Oluwafemi Samuel Oyamakin
14:45 – 15:00	Modeling proportion of infected tsetse flies over time in Kajiado and Narok districts, Kenya	Caroline Mugo*
	PS 2: Correlated data analysis	*Venue: Cape Teal* *Chair: Birhanu Ayele*
13:30 – 13:45	Hierarchical mixed effects model for type 2 diabetes	Haile Mekonnen Fenta
13:45 – 14:00	Intimate partner violence assessment: A comparative analysis of the standard logit model versus copula bivariate semiparametric logit in determining the factors associated with intimate partner violence from Kenya demographic and health survey in 2014	Thomas Achia
14:00 – 14:15	Linear mixed models with time-varying covariates: Application of disaggregation of within-subject and between-subject effects	Stella May Gwini

14:15 – 14:30	Non parametric techniques for multilevel discrete survival data	Thambeleni Nevhungoni
14:30 – 14:45	Modeling the stability and determinant factors of household food insecurity: A pair copula construction approach	John Olaomi

PS 3: Statistics in sample surveys		*Venue: Hadeda* *Chair: Khangelani Zuma*
13:30 – 13:45	On the correct modeling of the association between an outcome and a mismeasured covariate in clustered cross-sectional surveys: A simulation-based study	Alexander Kasyoki*
13:45 – 14:00	Evaluating the effect of sampling weights on the predictors of contraceptive use in Uganda using 2016 UDHS Data	Edson Mwebesa
14:00 – 14:15	Feasibility of employing systematic random cluster selection with probability proportional to estimated size and without replacement, to obtain a nationally representative sample of 9204 clusters for estimating vaccination coverage in South Africa	Portia Mutevedzi
14:15 – 14:30	Inequalities in stunting among under five children in Tanzania: Decomposing the concentration indexes using demographic health surveys from 2004/5 - 2015/6	Edwin Musheiguza*#
14:30 – 14:45	Time interval to modern contraceptive use following child birth among reproductive women in Tanzania: Evidence from Tanzania Demographic Health Survey2015/16	Martin Mujuni Rwabilimbo*
14:45 – 15:00	Comparison of random survival forests split rules in selecting the determinants of under-five mortality using 2014 Kenya DHS data	Kennedy Wanyonyi*

15:00 – 15:30	**Tea break**	
15:30 – 16:15	**Invited talk: Prof Tom Louis** (Johns Hopkins Bloomberg School of Public Health)	*Auditorium* *Chair: Henry Mwambi*
17:00 – 19:00	**Welcome reception**	

TUESDAY, 10 SEPTEMBER 2019

08:30 – 09:15	**Invited speaker: Prof Carl Lombard** (South African Medical Research Council and University of Stellenbosch, South Africa)	*Auditorium* *Chair: Samuel Manda*
09:15 – 10:30	**Parallel sessions**	

	STS 3: Biostatistical Methods in Public Health Research	*Venue: Auditorium* *Chair: Din Chen*
	Investigation of hepatitis B vaccination behaviour using unsupervised- and supervised statistical methods	Johan Ferreira
	On the electroencephalogram classification via the mixture of mean-mixture of normal autoregressive models	Mehrdad Naderi
	Spatial disease modelling with application examples	Henry Mwambi
	Spatial hotspot sampling for a rabies vaccination schedule in rural villages	Inger Fabris-Rotelli

	PS 1: Spatial statistics	*Venue: Sugar Bird* *Chair: Thomas Achia*
09:15 – 09:30	Spatial and temporal patterns of acute febrile illness and confirmed typhoid fever infection and their associated correlates in Ndirande, Blantyre, Malawi: An analysis of STRATAA data	Jessie Khaki*
09:30 – 09:45	Malaria morbidity in under-five children in Malawi: A Bayesian spatial-temporal Model	Vitumbiko Chijere Chirwa*
09:45 – 10:00	Skewed random effects distribution in conditionally autoregressive spatial models for estimating HIV prevalence at local level in South Africa	Kassahun Abere Ayalew
10:00 – 10:15	Spatiotemporal patterns of successful TB treatment outcomes among HIV co-infected patients in Kenya	Verrah Otiende
10:15 – 10:30	The impact of correlated socio-demographic factors in spatial profile of diabetes in africa with missingness	Sakhile Mnguni*

	PS 2: Statistics for agriculture	*Venue: Cape Teal* *Chair: Legesse Kassa Debusho*
09:15 – 09:30	Analysis of climatic variability and its effects on production of selected crops in Ada'a District, Ethiopia: Multivariate time series approach	Diribsa T. Bedada
09:30 – 09:45	Effect of different potassium fertilizer rates and liming on recommended maize yield grown in western Kenya	Cyrus Githunguri
09:45 – 10:00	Product profiling: Standard multivariate or multi-block statistical methods? An application to SA honeybush herbal tea	Marieta van der Rijst
10:00 – 10:15	Effect of different zinc fertilizer rates and cropping systems on recommended maize and beans grown in western Kenya	Cyrus Githunguri

PS 3: Statistics for clinical trials		Venue: Hadeda Chair: Carl Lombard
09:15 – 09:30	Digital data capturing: Using REDCap for a multi-arm, multi-site randomised clinical trial	Ishen Seocharan
09:30 – 09:45	Estimation of individual-level local average treatment effects in cluster randomised trials with non-adherence	Schadrac Agbla
09:45 – 10:00	Permutation multivariate tests for treatment effect: Theory and recent developments	Stefano Bonnini
10:00 – 10:15	Superiority and non-inferiority hypothesis testing with functional data endpoints	Arsene Brunelle Sandie
10:15 – 10:30	The usefulness of prediction intervals in quantifying effect heterogeneity in randomized controlled trials	Hao Zhang

10:30 – 11:00	**Tea break**	
11:00 – 11:45	**Invited talks: Prof Lehana Thabane** (University of McMaster, Canada)	*Chair: Tobias Chirwa*

11:45 – 13:00	Parallel sessions	
	STS 4: Advances in Bayesian Spatio-temporal modelling of disease risk based complex household surveys in Sub-Saharan Africa (SSA)	*Venue: Auditorium* *Chair: Ngianga-Bakwin Kandala*
	Modelling and mapping prevalence of Female Genital Mutilation/C (FGM/C) among 0-14 years old girls in Kenya, Nigeria and Senegal	Ngianga-Bakwin Kandala
	Geographic Variation in the Prevalence of Childhood Diarrhoea and Malaria in Malawi and Zambia Using Remotely Sensed and Climatic Data, Controlling for Deprivation	Samuel Manda
	Incorporating Sampling Design in Spatial Estimation of Small Area Health Outcomes Sub-Saharan Africa	Sheyla Cassy#
	Dietary patterns and linkages to non-communicable diseases in Namibia	Laina T. Mbongo
	Cross sectional and spatial analyses of self-reported Tuberculosis in South Africa: Results from SABSSM 2017	Inbarani Naidoo
	PS 1: General biostatistics	*Venue: Sugar Bird* *Chair: Jim Todd*
11:45 – 12:00	Factors associated with prevalence of pregnancy termination in Uganda: A population-based study	Edson Mwebesa*
12:00 – 12:15	The association between childhood environmental exposures and the subsequent development of Crohn's disease in the Western Cape, South Africa	Mikateko Mazinu
12:15 – 12:30	Developing and validating a scoring tool for mortality among neonates with oesophageal atresia and tracheoesophageal fistula at a tertiary level hospital in KwaZulu-Natal, South Africa	Yusentha Balakrishna
12:30 – 12:45	Risk factors and spatial heterogeneity of childhood anaemia in four sub-Saharan African countries	Danielle Roberts

12:45 – 13:00	Mortality rates, associated risk factors and causes of death in older children with neurological impairments in rural Kenya: A cohort study	Jonathan Abel*

PS 2: Longitudinal data analysis	*Venue: Cape Teal* *Chair: Freedom Gumedze*

11:45 – 12:00	A semi-parametric mixed model for longitudinally measured fasting blood sugar level of adult diabetic patients	Legesse Kassa Debusho
12:00 – 12:15	Diagnostics for a two-stage joint survival model	Isaac Singini
12:15 – 12:30	Right-censoring bias correction for growth curve linear mixed models	Dominique Laurent Couturier
12:30 – 12.45	Temporal interactions of microbiota in longitudinal nasopharyngeal samples	Maia Lesosky
12:45 – 13:00	Modelling the effect of rape on mental health status one year post enrollment: RICE study	Shibe Mhlongo

PS 3: Statistics for missing data	*Venue: Hadeda* *Chair: Geert Molenberghs*

11:45 – 12:00	Solutions for selective loss to follow-up in HIV-cancer cohorts in Malawi	Evaristar Kudowa
12:00 – 12:15	Assessing the sensitivity and robustness of randomization test in analysis of repeated measures design with missing observations	Abimibola Oladugba
12:15 – 12:30	Random Forests application in missing data and predictive modelling for hierarchical routine clinical data: A case study of childhood pneumonia in Kenya	Steven Wambua*#
12:30 – 12:45	Efficient methodologies for handling missing data for longitudinal ordinal outcome	Omololu Aluko
12:45 – 13:00	Evaluation of the robustness of imputation methods combined to backpropagation algorithm in frame of multiple non linear regression	Gbememali Castro Hounmenou

13:00 – 13:45	**Lunch**	
13:45 – 15:00	**Parallel sessions**	

STS 5: Statistical Methods for the Analysis of Genomic Data	*Venue: Auditorium* *Chair: Bernard Omolo*

A model-based approach to genetic association testing in malaria studies	Bernard Omolo
An Integrated RNA and DNA Molecular Signature for Colorectal Cancer Classification	Bernard Omolo
A full Bayesian hierarchical mixture model for the variance of gene differential expression	Samuel Manda
protGear: A tool for protein microarray data pre-processing	Mwai Wambui#
A comparison of cancer classification methods based on microarray data	Mohanad Mohammed*

PS 1: General biostatistics		Venue: Sugar Bird Chair: Bernard Rachet
13:45 – 14:00	Multilevel logistic regression for patients' satisfaction in Ethiopian public hospitals	Anteneh Yalew
14:00 – 14:15	Health spending and economic growth nexus: Evidence from Uganda	Smartson Ainomugisha*
14:15 – 14:30	analysis of student-lecturer interaction in online PHT 112 course at Maseno University	Mary Dancilla Wanjiru
14:30 – 14:45	Mortality rate and associated factors among preterm babies born in Moshi Municipality in northern Tanzania	Michael Johnson Mahande
14:45 – 15:00	Using software in teaching medical data	Lily Clements
PS 2: Bayesian biostatistics		Venue: Cape Teal Chair: Eustacius Musenge
13:45 – 14:00	Inform prior elicitation for Bayesian questionnaire validation using confirmatory factor analysis	Hao Zhang
14:00 – 14:15	Bayesian dynamic models for time-varying outcomes: Application to a patient cohort on ART	Lineekela Gabriel*
14:15 – 14:30	Bias estimation and sensitivity analysis in questionnaire studies with "embarrassing" questions	Christian Hansen
14:30 – 14:45	Modelling predictors of stroke disease in South Africa: Bayesian binary quantile regression approach	Lyness Matizirofa
PS 3: HIV and TB statistics		Venue: Hadeda Chair: Tobias Chirwa
13:45 – 14:00	Predictors of non-completion to Isoniazid preventive therapy among people living with HIV attended care and treatment clinics in Dar-es Salaam from 2013 to 2017	Masanja Robert*
14:00 – 14:15	Cost-effective, cross-sectional cohort estimation of HIV incidence rate in presence of misclassification error using doubly robust estimation	Kesaobaka Molebatsi
14:15 – 14:30	Changes in socioeconomic status among HIV patients after 10-years of antiretroviral therapy in Uganda: An estimation of the within-subject correlations	Godwin Anguzu
14:30 – 14:45	Mixed method estimation of population HIV viral suppression in the Western Cape, South Africa	Elton Mukonda
14:45 – 15:00	Time to HIV serostatus disclosure, pattern and factors among pregnant women living with HIV in Moshi urban.	Victoria Barabona*
15:00 – 15:30	**Tea break**	
18:30 – 21:00	Dinner	Gold Restaurant

WEDNESDAY, 11 SEPTEMBER 2019

08:30 – 09:15	**Invited talks: Prof Andreas Ziegler (StatSol, Lubeck, Germany)**	*Auditorium* *Chair: Jupiter Simbeye*
09:15 – 10:30	Parallel sessions	
	STS 6: The >eR-Biostat: A new E-learning system for BioStatistics	*Venue: Auditorium* *Chairs: Ziv Shkedy, Khangelani Zuma*
	The E-learning system for generalized linear models (GLM)	Khangelani Zuma
	Development of a Master program using the >eR-Biostat	Tadesse Awoke Ayele
	Using R markdown to develop E-learning capacity	Olajumoke Evangelina Owokotomo
	An introduction to the >eR-Biostat E-learning system	Ziv Shkedy
	PS 1: Statistics for missing data	*Venue: Sugar Bird* *Chair: Tarylee Reddy*
09:15 – 09:30	Bayesian approach in treating missing values with metabolomics	Jasmit Shah
09:30 – 09:45	Predictors of perinatal deaths in the presence of missing data: A registry based study in northern Tanzania	Innocent Mboya*
09:45 – 10:00	Robust estimation of single-index models with responses missing at random	Masego Otlaadisa
10:00 – 10:15	Multiple imputation of clinician-level covariates applied in modelling quality of clinician-prescribed care: Sensitivity analysis of departure from Missing at Random (MAR) assumption	Susan Gachau*#
10:15 – 10:30	Analytical methods used in handling missing data in estimating prevalence of HIV/AIDS for demographic and cross-sectional surveys: A systematic review.	Neema Mosha*
	PS 2: Disease mapping	*Venue: Cape Teal* *Chair: Inger Fabris Rotelli*
09:15 – 09:30	Climatic changes and tsetse fly distributions in Kwazulu-Natal, South Africa: A Spatio-temporal Model	Nada Abdelatif
09:30 – 09:45	Bayesian modelling of tick count data over time and space using discrete model approaches	Thabo Lephoto
09:45 – 10:00	Spatial distribution of HIV prevalence among young people in Mozambique	Rachid Muleia
10:00 – 10:15	Combining data from national surveys with facility-based HIV testing to obtain more accurate estimate of HIV prevalence in districts in Uganda	Joseph Ouma*
10:15 – 10:30	Statistical measures for multivariate spatial autocorrelation	Timotheus Darikwa

	PS 3: Evidence synthesis and data harmonisation	*Veue: Hadeda* *Chair: Samuel Manda*
	09:15 – 09:30 A comparative study of palmar and digital dermatoglyphic patterns among type-II diabetic & non-diabetic adults: A meta-analysis	Ameet Jha
	09:30 – 09:45 An algorithm for data reconstruction from published articles - Application on insect life tables	Dorcas Kareithi
	09:45 – 10:00 A review on disease mapping and modelling of cardiovascular diseases in South Africa	Nomonde Gwebushe
	10:00 – 10:15 Impact of improved drinking water source and sanitation, and urban residence on child diarrhoea in Sub-Saharan Africa. A meta-analysis of demographic and health surveys	Rejoice Msiska
10:30 – 11:00	**Tea break**	
11:00 – 11:45	**Parallel sessions**	
	PS 1: Infectious disease modelling	*Venue: Auditorium* *Chair: Henry Mwambi*
	11:00 – 11:15 Probabilistic modeling for an integrated temporary acquired immunity with norovirus epidemiological data	Emmanuel deGraft Johnson Owusu Ansah
	11:15 – 11:30 Mathematical modeling of the interruption of the transmission of soil transmitted helminths infections in Kenya	Collins Okoyo*
	11:30 – 11:45 Analysis of a vaccination mathematical model of an infectious measles disease	Hope Mbachu
	PS 2: Survival and longitudinal analysis	*Venue: Sugar Bird* *Chair: Michael Johnson Mahande*
	11:00 – 11:15 Nonparametric cure rate estimation when cure is partially known	Wende Clarence Safari
	11:15 – 11:30 Discrete Time Hazard Parameterization for Child Survival in Malawi	Jessie Khaki*
	11:30 – 11:45 Bayesian Copula-Based analysis of joint model for multi-variable longitudinal and recurrent events	Tefo Baraki#
	PS 3: TB and HIV	*Venue: Cape Teal* *Chair: Kathy Baisley*
	11:00 – 11:15 The effect of cotrimoxazole prophylaxis on CD4 cell-count profiles in HIV-positive patients stabilized on anti-retroviral therapy: Analysis of data from the COSTOP trial	Tshwaraganang Modise
	11:15 – 11:30 Gender differential and social determinant of tuberculosis/HIV co-infected patients	Opeyemi Oyekola Ogungbola
	11:30 – 11:45 Copula bivariate based semiparametric logit models: Application to the joint modeling of psychoactive drugs and HIV risk among fisherfolk in Kenya	Thomas Achia

11:45 – 13:00	Parallel sessions

STS 7: Time-to-event analysis using population-based data	*Venue: Auditorium* *Chair: Bernard Rachet*
A flexible excess hazard modelling approach within the relative survival setting	Bernard Rachet
Modeling the crude probability of cancer death and number of life-years lost due to cancer using a pseudo-observation approach	Bernard Rachet
Small area variations in excess prostate cancer specific survival in the Northern and Yorkshire region of England using Bayesian hierarchical spatial smoothing	Samuel Manda
Statistical methods to link demographic and health survey data with census data	Ruth Vellemu*#
Age, period and cohort analysis of young adult mortality due to HIV and TB in South Africa: 1997-2015.	Tshifhiwa Nkwenika

PS 1: General biostatistics		*Venue: Sugar Bird* *Chair: Andreas Ziegler*
11:45 – 12:00	Hematological reference intervals for children in Bagamoyo District, Tanzania	Ummi Abdul Kibondo*
12:00 – 12:15	Comparing coverage and precision of Newcombe confidence intervals for proportion differences generated using different weighting systems	Miriam Wathuo
12:15 – 12:30	Fertility differential between Mombasa and Nairobi counties in Kenya	Lilian Owino
12:30 – 12:45	Progression of Cisplatin-associated Ototoxicity amongst Patients receiving Cancer Chemotherapy: Application of Tobit Regression	Birhanu Ayele
12:45 – 13:00	Developing Socio-Economic Status (SES) index for Basse region in The Gambia	Abdul Khalie Muhammad

PS 2: Survival and longitudinal data analysis		*Venue: Cape Teal* *Chair: Lehana Thabane*
11:45 – 12:00	Joint multistate modelling of viral load dynamics and multistate CD4 count progression	Zelalem Dessie*
12:00 – 12:15	Exploring association between predominant breastfeeding and infection-related hospitalization, over time: an empirical comparison of models to account for clustering	Moleen Dzikiti (née Zunza)*
12:15 – 12:30	Comparison of COX proportional hazard model and accelerated failure time model with application to data on tuberculosis/HIV patients in Nigeria	Opeyemi Oyekola Ogungbola
12:30 – 12:45	Multi-state models for the analysis of Wheezing episodes in a birth cohort of african children	Patrick Hannan

| 12:45 – 13:00 | A pairwise joint modelling approach for multivariate longitudinal immuno-epidemiological data from the Infant BCG study in Entebbe, Uganda | Lawrence Lubyayi* |

PS 3: Causal inference		*Venue: Hadeda* *Chair: Nonhlanhla Yende*
11:45 – 12:00	Do parents' mental disorders affect child behaviour via home environments and/or primary caregiver's personal and social performance? A mediation analysis	Md Jamal Uddin
12:00 – 12:15	Investigation of three instrumental variable methods in the presence of errors in explanatory variables: A comparative analysis	Maureen Nwakuya
12:15 – 12:30	Auxiliary variables in Latent Profile Analysis (LPA) and methods to estimate a distal outcome model	Esme Jordaan

13:00 – 13:45	**Lunch**		
13:45 – 15:00	Closing ceremony		*Auditorium*
	13:45 – 14:25	Closing keynote address	*Prof Jonathan Levin*
			Chair: Taryn Young
	14:25 – 15:00	Closing remarks	Tobias Chirwa/Samuel Manda
15:00 – 15:30	**Tea break**		