Bernard Omolo

Work Address
Division of Mathematics & Computer Science
University of South Carolina–Upstate
Hodge Center 223
800 University Way, Spartanburg, SC 29303
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Home Address
508 Kennet Court
Spartanburg, SC 29301
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EDUCATION & TRAINING

Texas Tech University Lubbock, TX 1999–2004
Ph.D.(Mathematical Statistics), Dept. of Mathematics & Statistics

University of North Carolina - Chapel Hill Chapel Hill, NC 2019–2022
M.P.H., Gillings School of Global Public Health

University of North Carolina - Chapel Hill Chapel Hill, NC 2009–2011
Postdoctoral Research Associate, Cancer Genomics & Biostatistics, Dept. of Biostatistics

Washington University St. Louis, MO 2007–2008
Scholar, SIPID - Genetic Epidemiology, Div. of Biostatistics

Egerton University Njoro, KE 1992–1994
M.S.(Mathematical Statistics), Dept. of Mathematics.

Egerton University Njoro, KE 1987–1990
B.S.(Mathematics), Dept. of Mathematics.

EMPLOYMENT

University of South Carolina–Upstate Spartanburg, SC 2016–Present
Professor, Div. of Math & Computer Science

University of South Carolina–Upstate Spartanburg, SC 2010–2016
Associate Professor, Div. of Math & Computer Science

University of South Carolina–Upstate Spartanburg, SC 2004–2010
Assistant Professor, Div. of Math & Computer Science

Texas Tech University Lubbock, TX 1999–2004
Graduate Part-time Instructor, Dept. of Mathematics & Statistics

Egerton University Njoro, KE 1999–2004
Lecturer, Dept. of Mathematics

Egerton University Njoro, KE 1994–1999
Assistant Lecturer, Dept. of Mathematics

Egerton University Njoro, KE 1990–1994
Teaching Assistant, Dept. of Mathematics

VISITING APPOINTMENTS

University of Applied Sciences Landshut Landshut, Germany 2021–Present
Guest Lecturer, Faculty of Interdisciplinary Studies

Strathmore University Nairobi, Kenya 2013–Present
Visiting Faculty, Institute of Mathematical Sciences

University of KwaZulu-Natal Pietermaritzburg, South Africa 2019–2026
Honorary Professor, School of Mathematics, Statistics and Computer Sciences

University of the Witwatersrand Johannesburg, South Africa 2017–2024
Visiting Associate Professor, Wits School of Public Health

Botswana International University of Science & **Technology** Palapye, Botswana 2021–2022
Visiting Full Professor, Department of Mathematics & Statistical Sciences

University of South Africa Johannesburg, South Africa Summer 2017
Visiting Research Fellow, Dept. of Statistics

Swiss Institute of Bioinformatics (SIB) Lausanne, Switzerland Summer 2016
Visiting Research Scientist

Statistical and Mathematical Sciences Institute (SAMSI) RTP, North Carolina Fall 2011
Visiting Research Fellow

ADMINISTRATIVE APPOINTMENTS

University of South Carolina–Upstate Spartanburg, SC 2017–2020
Chair, Div. of Math & Computer Science

University of South Carolina–Upstate Spartanburg, SC 2015–2017
Interim Chair, Div. of Math & Computer Science

University of South Carolina–Upstate Spartanburg, SC 2013–2015
Assistant Chair, Div. of Math & Computer Science

HONORS & AWARDS

ICTP Visiting Scholar Strathmore University 2013–2016, 2017–2019, 2020–2022

Carnegie African Diaspora Fellow Strathmore University Summer 2019

Carnegie African Diaspora Fellow University of South Africa Summer 2017

Burroughs Wellcome Fund Grantee Swiss Institute of Bioinformatics (SIB) Summer 2016

NIH Travel Award Diversity in Biostatistics Workshop (ENAR) Spring 2010/2012/2016

University of South Carolina Featured Scholar Univ of South Carolina Fall 2013

Statistical and Mathematical Sciences Institute (SAMSI) Research Fellow Fall 2011

NCI Postdoctoral Fellowship Univ of North Carolina–Chapel Hill 2009–2010

NHLBI SIPID - GE Scholarship Washington University Summer 2008/2009

NIH Travel Award Workshop for Junior Researchers in Biostatistics (ENAR) Spring 2004

Gordon Fuller Memorial Graduate Scholarship Texas Tech University 1999–2000, 2003–2004

NSF Travel Award Seventh Purdue International Symposium on Statistics Summer 2003

German Academic Exchange (DAAD) Graduate Scholarship Egerton University 1993–1994

First Class Honors B.S. (Mathematics) Award Egerton University Fall 1990

RESEARCH INTERESTS

Statistical Genomics, Genetics and Bioinformatics; Bayesian Methods; Cancer; Global Public Health

RESEARCH SUPPORT

National Cancer Institute U01-CA-157960-03S1 2014–2016
Role: Co-Investigator; Total Funding: $269,336.

Simons Foundation 282714 2013–2018
Role: Principal Investigator; Total Funding: $35,000.

Burroughs Wellcome Fund 1015192 2015–2016
Role: Principal Investigator; Total Funding: $10,000.

SC Research Foundation - RISE Program 17880-14-35535 Summer 2014
Role: Principal Investigator; Total Funding: $5,000.

SC Research Foundation - RISE Program 17880-13-32933 Summer 2013
Role: Principal Investigator; Total Funding: $5,000.

SC Research Foundation - ASPIRE Program 17880-12-29602 2012–2013
Role: Principal Investigator; Total Funding: $11,228.

USC Upstate Teaching & **Productive Scholarship Grants** 2007–2024
Role: Principal Investigator; Total Funding: $26,682.

USC Upstate Faculty Course Reallocation Grants 2009–2014
Role: Principal Investigator; Total Funding: $10,000.

PUBLICATIONS

34. Mohammed, A. E. A., Mwambi, H., Omolo, B. (2024). Time-Varying Correlations between JSE. JO Stock Market and Its Partners Using Symmetric and Asymmetric Dynamic Conditional Correlation Models. *Stats*, **7**(3), 761–776.

33. Orero, L., Omondi, E. O., Omolo, B. O. (2024). A Bayesian model for predicting monthly fire frequency in Kenya. *PloS One*, **19**(1), e0291800. [PMID: **38271480**].

32. Kigo, S.N., Omondi, E.O., Omolo, B.O. (2023). Assessing predictive performance of supervised machine learning algorithms for a diamond pricing model. *Sci Rep.*, **13**(1): 17315. [PMID: **37828360**].

31. Lipesa, B.A., Okango, E., Omolo, B.O., Omondi, E.O. (2023). An application of a supervised machine learning model for predicting life expectancy. *SN Appl. Sci.*, **5**: 189. https://doi.org/10.1007/s42452-023-05404-w.

30. Akoth, M., Odhiambo, J.,Omolo, B. (2023). Genome-wide association testing in malaria studies in the presence of overdominance. *Malaria J.*, **22**(1): 119. [PMID: **37038187**].

29. Elbashir, M.K., Mohammed, M., Mwambi, H., Omolo, B. (2023). Identification of hub genes associated with breast cancer using integrated gene expression data with protein-protein interaction network. *Appl. Sci.*, **13**(4): 2403. https://doi.org/10.3390/app13042403.

28. Omolo, B.O. and Manda, S.O. (2022). Editorial: Application of biostatistics and epidemiological methods for cancer research in Sub-Saharan Africa. *Front. Public Health*, **10**: 1069098. [PMID: **36457323**].

27. Mohammed, M., Mwambi, H., Mboya, I.B., Elbashir, M.K., Omolo, B. (2021). Predictors

of colorectal cancer survival using Cox regression and random survival forests models based on gene expression data. *PLoS One.*, **16**(12): e0261625.
[PMID: **34965262**].

26. Mohammed, M., Mwambi, H., Mboya, I.B., Elbashir, M.K., Omolo, B. (2021). A stacking ensemble deep learning approach to cancer type classification based on TCGA data. *Sci Rep.*, **11**(1): 15626.
[PMID: **34341396**], [PMCID: **8329290**].

25. Mohammed, M., Mwambi, H., Omolo, B. (2020). Colorectal cancer classification and survival analysis based on an integrated RNA and DNA molecular signature. *Current Bioinformatics*, **15**, 1–18.

24. Omolo, B., Njuho, P. (2020). Adverse Event Risk Assessment on Patients Receiving Combination Antiretroviral Therapy in South Africa. *Int. J. Stats. Med. Res.*, **9**(1), 10–19.

23. Mohammed, M., Mwambi, H., Omolo, B., Elbashir, M. K. (2018). Using stacking ensemble for microarray-based cancer classification In *2018 International Conference on Computer, Control, Electrical, and Electronics Engineering (ICCCEEE)*, (pp. 1–8). IEEE.

22. Okuto, E., Ongati, O., Omolo, B. (2018). Reconstructing earth observation vegetation index records with a Bayesian spatiotemporal dynamic model. *International Journal of Statistics & Applied Mathematics*, **3**(4), 74–84.

21. Odhiambo, C., Davis, J., Omolo, B. (2017). Risk for Cardiovascular Disease in Blacks with HIV/AIDS in America: A Systematic Review and Meta-analysis. *Journal of Health Disparities Research and Practice*, **10**(2), 121–141.

20. Chaba, L., Odhiambo, J., Omolo, B. (2017). Evaluation of Methods for Gene Selection in Melanoma Studies. *Int. J. Stats. Med. Res.*, **6**(1), 1–9.

19. Odhiambo, C., Odhiambo, J., Omolo, B. (2017). Validation of the Smooth Test of Goodness-of-fit for Proportional Hazards in Cancer Survival Studies. *Int. J. Stats. Med. Res.*, **6**(2), 49–67.

18. Odhiambo, C., Odhiambo, J., Omolo, B. (2017). A Smooth Test of Goodness-of-fit for the Weibull Distribution: An Application to an HIV Retention Data. *Int. J. Stats. Med. Res.*, **6**(2), 68–78.

17. Odhiambo, C., Odhiambo, J., Omolo, B. (2017). A Smooth Test of Goodness-of-fit for the Baseline Hazard Function for Time-to-First Occurrence in Recurrent Events: An Application to an HIV Retention Data. *Int. J. Stats. Med. Res.*, **6**(3), 104–113.

16. Chaba, L., Odhiambo, J., Omolo, B. (2017). Using Copulas to Select Prognostic Genes in Melanoma Patients. *Int. J. Stats. Med. Res.*, **6**(3), 114–122.

15. Chaba, L., Odhiambo, J., Omolo, B. (2017). A Comparison of Parametric and Semi-Parametric Models for Microarray Data Analyis. *Int. J. Stats. Med. Res.*, **6**(4), 134–143.

14. Omolo, B., Yang, M., Lo, F.Y., Schell, M. J., Austin, S., Howard, K., Madan, A., Yeatman, T.J. (2016).
Adaptation of a RAS Pathway Activation Signature from FF to FFPE Tissues in Colorectal Cancer. *BMC Medical Genomics*, **9**(1):65.[PMID: **27756306**].

13. Oluyede, B. O., Yang, T., Omolo, B. (2015). A Generalized Class of Kumaraswamy Lindley Distribution with Application to Lifetime Data. *Journal of Computations & Modelling*, **5**(1), 27–70.

12. **Kaufmann, W. K., Carson, C., Omolo, B., Sambade, M., Simpson, D., Filgo, A., Fields, J., Ibrahim, J., Thomas, N. (2014).**
Mechanisms of chromosomal instability in melanoma. *Environ Mol Mutagen*, **55**(6), 457–471.[PMID: **24616037**].

11. **Nikolaishvilli-Feinberg, N., Cohen, S. M., Midkiff, B., Zhou, Y., Olorvida, M., Ibrahim, J. G., Omolo, B., Shields, J. M., Thomas, N. E., Groben, P. A., Kaufmann, W. K., Miller, C. R. (2014).**
Development of DNA Damage Response Signaling Biomarkers Using Automated Quantitative Image Analysis. *J Histochem Cytochem*, **62**, 185–196.[PMID: **24309508**].

10. **Omolo, B., Carson, C., Chu, H., Zhou, Y., Simpson, D. A., Hesse, J. E., Paules, R. S., Nyhan, K. C., Ibrahim, J. G., Kaufmann, W. K. (2013).**
A prognostic signature of G2 checkpoint function in melanoma cell-lines. *Cell Cycle*, **12**, 1071–1082. [PMID: **23454897**].

9. **Omolo, B., Zhang, H., Karmaus, W. (2013).** Cautions of Using Allele-based Tests under Heterosis. *Int. J. Stats. Med. Res.*, **2**, 47–54.

8. **Hamilton, R., Krauze, M., Romkes, M., Omolo, B., Konstantinopoulos, P., Reinhart, T., Harasymczuk, M., Wang, Y., Lin, Y., Ferrone, S., Whiteside, T., Bortoluzzi, S., Werley, J., Nukui, T., Fallert-Junecko, B., Kondziolka, D., Ibrahim, J., Becker, D., Kirkwood, J., Moschos, S. (2013).**
Pathologic and Gene Expression Features of Metastatic Melanomas to the Brain (MBM). *Cancer*, **119**, 2737–2746.[PMID: **23695963**].

7. **Carson, C., Omolo, B., Chu, H., Zhou, Y., Sambade, M. J., Peters, E. C., Tompkins, P., Simpson, D. A., Thomas, N. E., Fan, C., Sarasin, A., Dessen, P., Shields, J.M., Ibrahim, J. G., Kaufmann, W. K. (2012).**
A prognostic signature of defective p53-dependent G1 checkpoint function in melanoma cell-lines. *Pigment Cell Melanoma Res*, **25,** 514–526**.** [PMID: **22540896**].

6. **Cooley, D., Cisewski, J., Erhardt, R. J., Jeon, S., Mannshardt, E., Omolo, B. O.** & **Sun, Y. (2012).**
A survey of spatial extremes: Measuring spatial dependence and modeling spatial effects.
Revstat, **10,** 135–165**.**

5. **Morgan, D., Omolo, B. (2010).** Challenges in Genomic Data Processing I - Multiple Small Files.
SAS Global Forum 2010, Paper 062-2010.

4. **S.-H. Lee, E. Lee, B. O. Omolo (2008).**
Using Integrated Weighted Survival Difference for the Two Sample Censored Data Problem. *Computational Statistics & Data Analysis*, **52,** 4410–4416**.**

3. **Hart, J., Omolo, B., Boone, W. R., Brown, C., Ashton, A. (2007).** Reliability of three methods of computer-aided thermal pattern analysis.
J Can Chiropr Assoc, **51(3),** 175–185**.**

2. **Hart, J., Omolo, B., Boone, W. R. (2007).** Thermal Patterns and Health Perceptions.
J Can Chiropr Assoc, **51(2),** 106–111**.**

1. **Einmahl, J. H. J., Omolo, B. O., Puri, M. L., Ruymgaart, F. H. (2005).** Aligned Rank Statistics for Repeated Measurement Models with Orthonormal Design Employing a Chernoff-Savage Approach.
Journal of Statistical Planning and Inference, **130,**167–182**.**

INVITED TALKS & WORKSHOPS

Biostatistical Approaches to Data Analysis 3rd Annual Africa HepatoPancreatoBiliary Cancer Consortium (AHPBCC) Conference, Mombasa, Kenya; August, 2024.

Introduction to Statistical Genetics: Theory and Practice Department of Statistics & Actuarial Sciences Workshop, JKUAT, Kenya; February, 2021.

A Model-based Approach to Genetic Association Testing in Malaria Studies IBS–SUSAN 2019, Cape Town, South Africa; September, 2019.

A Model-based Approach to Genetic Association Testing in Malaria Studies ICOSDA 2019, Grand Rapids, Michigan; October, 2019.

Adaptation of a RAS Pathway Activation Signature from FF to FFPE Tissues in Colorectal Cancer Statistical Genetics in Cardiovascular Medicine Meeting, Loyola University–Chicago; September, 2017.

A Comparison of Parametric and Semi-parametric Models for Microarray Data Analysis ISI-World Statistics Congress 2017 Conference, Marrakech, Morocco; July, 2017.

Adaptation of a RAS Pathway Activation Signature from FF to FFPE Tissues in Colorectal Cancer World Cancer Congress 2017 Conference, Barcelona, Spain; May, 2017.

Using Copulas to Select Prognostic Genes in Melanoma Patients. ICMSIT 2016 Conference, Tanta University, Egypt; December, 2016.

A Quantitative Trait Analysis of the G2 Checkpoint Function in Melanoma Cell-lines. Department of Probability & Statistics Seminar, CIMAT, Guanajuato, Mexico; June, 2015.

A Prognostic Signature for G2 Checkpoint Function in Melanoma Cell Lines. 2nd Strathmore International Mathematics Conference, Strathmore University; August, 2013.

A Bayesian Hierarchical Model for Correlation in Microarray Studies. International Mathematics Research Meeting, Strathmore University; July, 2012.

Statistical Analysis of DNA Microarray Data. The First Strathmore University Mathematics Conference, Strathmore University; August, 2011.

A Signature of p53-dependent G1 Checkpoint Function in Melanoma Cell-lines. Department of Mathematical Sciences Colloquium, Georgia Southern University; March, 2011.

Quantitative Analysis of G2 Checkpoint Function in Melanoma Cell-lines. LCCC Biostatistics Core Seminar, University of North Carolina–Chapel Hill; January, 2011.

Cautions of Using Allelic Tests under Overdominance. Morehouse School of Medicine, Atlanta, GA; November, 2009.

Statistical Methods for Observational Studies. International Research and Philosophy Symposium, Sherman College; October, 2005.

CONTRIBUTED TALKS/COLLOQUIA

A Comparison of Parametric and Semi-parametric Models for Microarray Data 2022 SAMSA Masamu CRN Colloquia Series (Virtual), May, 2022.

Comparison of the SAM and a Bayesian Method for Differential Gene Expression Analysis. XXVIII *IBC* Conference, Victoria, Canada; July, 2016. *Best Paper Award, Young Statisticians Showcase*

A Copula-based Approach to Differential Gene Expression Analysis. XXVII *IBC* Conference, Florence, Italy; July, 2014.

A Prognostic Signature of Defective p53-dependent G1 Checkpoint Function in Melanoma Cell-lines. Joint Statistical Meetings, San Diego, CA; August, 2012.

A Bayesian Hierarchical Model for Correlated Microarray Datasets. Joint Statistical Meetings, Miami, FL; August, 2011.

Bayesian Hierarchical Models for Cross-Study Reproducibility of Gene Expression Data. ENAR Conference, New Orleans, LA; March, 2010.

Cautions of Using Allele-based Tests under Heterosis. WNAR / IMS Conference, Portland State University; June, 2009.

An Aligned Rank Test for a Repeated Measurement Model with Orthonormal Design. 2nd Lehmann Symposium on Optimality, Rice University; May, 2004.

Aligned Rank Statistics for Repeated Measurement Models with Orthonormal Design Employing a Chernoff-Savage Approach. 7th Purdue International Symposium on Statistics, Purdue University; June, 2003.

POSTER PRESENTATIONS

Time-varying Correlations Between JSE.JO Stock Market and Partners Using Symmetric DCC Models. *SRCOS 2024* Conference, Clemson University, SC; June, 2024.

Using Copulas to Select Prognostic Genes in Melanoma Patients. *ICOSDA* Conference, Niagara Falls, Canada; October, 2016.

A Smooth Test of Goodness-of-fit for the Weibull Distribution: An Application to an HIV rentention Data. *ICOSDA* Conference, Niagara Falls, Canada; October, 2016.

A Smooth Test of Goodness-of-fit for the Weibull Distribution: An Application to an HIV rentention Data. XXVIII *IBC* Conference, Victoria, Canada; July, 2016.

Validation of a 32-gene classifier for the subtyping of carcinomas using the qNPA™ ArrayPlate Platform AACR Annual Meeting, Philadelphia, PA; April, 2015.

A Smooth Test of Goodness-of-fit for the Baseline Hazard Function in Recurrent Event Models. XXVII *IBC* Conference, Florence, Italy; July, 2014.

Mechanisms of Chromosomal Instability in Melanoma. XXVII *IBC* Conference, Florence, Italy; July, 2014.

A Prognostic Signature for G2 Checkpoint Function in Melanoma Cell Lines. SRCOS Summer Research Conference, Burns, TN; June, 2013.

Bayesian Modeling of Cross-study Reproducibility of Gene Expression Data. SRCOS Summer Research Conference, Norfolk, VA; June, 2010.

An Asymptotically Distribution-free Aligned Rank Test for Location in a Repeated Observation Model. Nonparametric Statistics Conference, University of South Carolina–Columbia; October, 2007.

An Asymptotically Distribution-free Aligned Rank Test for Linearity of a Median Regression Function. Risk Analysis, Extreme Events and Decision Theory Workshop, SAMSI; September, 2007.

Aligned Rank Statistics for Repeated Measurement Models with Orthonormal Design Employing a Chernoff-Savage Approach. Justus Seely Conference on Linear Models, Oregon State University; July, 2003.

GRADUATE STUDENTS

Mohanad Mohammed Lecturer, University of KwaZulu-Natal(UKZN) (Ph.D., 2022)
Thesis title: "Statistical and Deep Learning Methods for Cancer Genomic Data"

Collins Odhiambo Research Assistant Professor, University of Illinois (Ph.D., 2017)
Thesis title: "Smooth Test of Goodness-of-Fit for Hazard Functions: An Application to HIV Retention Data"

Linda Chaba Postdoctoral Fellow, University of California - San Franscisco (Ph.D., 2017)
Thesis title: "A Copular-based Approach to Differential Gene Expression Analysis"

Erick Okuto Associate Professor, JOOUST (Ph.D., 2016)
Thesis title: "Reconstruction of enhanced vegetation index record. An application of weak solution to stochastic partial differential equations approach"

Brian Aholi Lead Data Scientist, Diamond Trust Bank (K) Ltd. (MSc., 2022)
Thesis title: "Machine Learning Based Prediction of Life Expectancy"

Samuel Kigo Data Scientist, Central Bank of Kenya (MSc., 2022)
Thesis title: "Assessing Predictive Performance of Supervised Machine Learning Algorithms – An Alternative Model for Diamond Pricing"

Daniel Maangi Monitoring and Evaluation Adviser, Centers for Disease Control and Prevention, Nairobi (MSc., 2022)
Thesis title: "Statistical learning for class imbalanced data: a case study of malaria indicator survey data"

Levi Orero Data Analyst, World Agroforestry Centre, Nairobi (MSc., 2022)
Thesis title: "Modeling of Count Data with an Informative Time Component in the Presence of Overdispersion"

Morine Akoth Doctoral Fellow, Strathmore University (in progress)
Thesis title: "A Model-based Approach to Genetic Association Testing in Malaria Studies"

Kevin Omondi Doctoral Fellow, Strathmore University (in progress)
Thesis title: "An Integrated Copula Selection Method for Climate Data: Application to Rainfall Data in Kenya"

John Osumba Doctoral Fellow, Strathmore University (in progress)
Thesis title: "A Comparative Study of Goodness-of-fit Tests for the Negative Binomial Distribution with Application to RNA-Seq Data"

Anas Mohammed Doctoral Fellow, University of KwaZulu-Natal (in progress)
Thesis title: "An Integrated Approach to Stock Market Modeling using Deep and Statistical Learning"

Paseka Tladi Doctoral Student, BIUST (in progress)
Thesis title: Prediction of Overall Survival for Cervical Cancer Patients in Botswana: An Application of Statistical and Machine Learning Models

Clearance Abel Teaching Instructor, BIUST (in progress)
Thesis title: Joint Modeling of Viral Load and Overall Survival among HIV-Positive Cervical Cancer Patients in Botswana

TEACHING RECORD (Course / Book Authors)

MATH 315: Statistical Methods I Ott & Longnecker

STAT 410: Introduction to Probability Theory Weiss; Hogg, Tanis & Zimmerman; Ross

STAT 413: Introduction to Stochastic Processes Durrett; Ross

STAT 512: Mathematical Statistics Hogg & Tanis; Hogg, Tanis & Zimmerman

STAT 516: Statistical Methods II Ott & Longnecker

STAT 599: Senior Seminar in Statistics Various Journal Articles

STAT 613: Generalized Linear Models Dunn and Smyth

STA 8202: Probability and Stochastic Models Ross

DSA 8301: Statistical Inference in Big Data Efron & Hastie

STA 8301: Multivariate Statistical Analysis Everitt & Hothorn; Johnson & Wichern

PROFESSIONAL SERVICE

Guest Associate Editor, Frontiers in Public Health: *Life - Course Epidemiology and Social Inequalities in Health* 2020 - 2022

Grant Proposal Reviewer, Maarten van der Weijden (MvdW) Foundation, The Netherlands 2022

Session Chair, IBS–SUSAN 2021, Nairobi, Kenya: *Survival Analysis* 2021

Special Session Chair and Organizer, IBS–SUSAN 2019, Cape Town, South Africa: *Statistical Methods for the Analysis of Genomic Data* 2019

Topic-Invited Session Chair and Organizer, ICOSDA 2019, Grand Rapids, Michigan: *Statistical Methods for High-Dimensional Data Analysis: Application to Genomics* 2019

Contributed Session Chair, ENAR 2010, New Orleans, Louisiana: *Pathway and Network-based Genomic Analysis* 2010

Reviewer for: PLoS ONE; International Statistical Review; Statistics in Medicine; Scientific Reports; Frontiers in Immunology; Frontiers in Oncology; Mathematical Reviews (AMS); Communication in Statistics: Simulation and Computation; Maternal and Child Health Journal; Journal of Statistical Distributions and Applications; South African Journal of Statistics; The American Statistician; Journal of Biological Methods; Afrika Statistika; Journal of Advanced Statistics; Electronic Journal of Applied Statistical Analysis; Journal of Health Disparities Research and Practice.

External Reviewer for Promotion Illinois Wesleyan University 2022

External Examiner for Dissertation Alexandria University 2022

External Reviewer for Promotion Georgetown University 2021

External Reviewer for Promotion Strathmore University 2021

External Reviewer for Promotion Georgia Southern University 2020

External Reviewer for Promotion University of California Davis 2019

External Assessor for Promotion Botswana International University of Science and Technology 2019

External Examiner for Dissertation University of KwaZulu-Natal 2018

Reviewer for the National Research Foundation (NRF) Pretoria, South Africa 2017

External Reviewer for Promotion and Tenure Kansas State University 2017

External Examiner for Thesis Botswana International University of Science and Technology 2016

Grant Review Panel Member, RISE Research Grants Univ of South Carolina 2015

Grant Review Panel Member, ASPIRE-I Research Grants Univ of South Carolina 2014, 2022

Scientific Committee Member, Sub-Saharan Conference on Spatial Statistics Univ of the Witwatersrand 2014

Scientific Committee Member, SIMC Strathmore University 2013–Present

Judge, Annual Biomedical Research Conference for Minority Students (ABRCMS) Charlotte, NC Fall 2010

PROFESSIONAL MEMBERSHIP

American Statistical Association (ASA): Member No. 120308 2006–Present

International Biometric Society (ENAR): Member Nos. 5499/1412707 2003–Present

American Association for Cancer Research (AACR): Member No. 264117 2012–Present