

Name: Dr Robert Mathenge Mutwiri

Title/Qualification: PhD statistics

Position: Lecturer

Department: Mathematics, Computer Science and IT

School: PURE AND APPLIED SCIENCES

Area of Specialization: STATISTICS

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Short Biography

Dr Robert Mathenge holds a doctorate in philosophy statistics from the university of Kwazulu Natal South Africa, he holds a master of science in social statistics from the university of Nairobi Kenya and a bachelor of science degree in Applied statistics from Maseno university Kenya.

Research Interests

Statistical ecology, Movement ecology of angulates, spatiotemporal modelling, Biostatistics

Publications in Journals:

- (i) Statistical distributions and modelling of GPS-Telemetry elephant movement data including the effect of covariates, to be submitted to the University of Kwa Zulu-Natal **for the award of Doctor of Philosophy in Statistics** 2014. <https://researchspace.ukzn.ac.za/xmlui/handle/10413/13034>.
- (ii) ac.za/xmlui/handle/10413/13034.
- (iii) Mutwiri, R.M, **Thesis Abstract:** Statistical distributions and modelling of GPS-Telemetry
- (iv) elephant movement data including the effect of covariates. *Pakistan Journal of Statistics and Operation Research*. <http://www.pjsor.com/index.php/pjsor/thesis/view/37> Spatial Analysis and Mapping of Infant Mortality in Kenya Based on DHS data 2003, a thesis submitted for the award of master of science degree in Social statistics.
- (v) Mutwiri, R.M(2016). Application of Bayesian Geospatial statistical methods in the analysis and mapping of Infant Mortality in Kenya. *IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 21, Issue 3, Ver. 4 (Mar. 2016), PP 05-13 e-ISSN: 2279-0837, p-ISSN: 2279-0845*

- (vi) Mutwiri, R.M, Mwambi H, and Slotow R (2016). Application of circular-linear multiple Regression model of GPS tracking data with application to elephant movement. *IOSR Journal of Mathematics (IOSR-JM)*, e-ISSN:2278-5728, p-
iisn:2319-765X. Volume 12, Issue 2, Ver. 2 (March - April 2016), PP 01-13. .
- (vii) Mutwiri, R.M, Mwambi H and Slotow R(2016). Approaches for testing the uniformity hypothesis of angular in movement of large mega-herbivores in Kruger National park South Africa. *International Journal of Science and Research*
- (viii) Mutwiri, R.M, Mwambi H, and Slotow R. A nonlinear regression model with stable law errors with application to animal movement data. *IOSR Journal of Mathematics (IOSR-JM)*.
- (ix) Mutwiri, R.M, Mwambi, H and Slotow, R. Application of stable distribution theory to animal movement ecology. *Submitted: Sains Malaysiana*.
- (x) Mutwiri, R.M. Time series models with application to animal movement. *Submitted to Colombian Journal of Statistics*
- (xi) Mutwiri, R.M. Evaluating the fit of empirical distributions to GPS-derived animal movement data. *Submitted:Sains Malaysiana*
- (xii) Mutwiri, R.M, Statistical properties of animal movement GPS data and derived GIS telemetry metrics. *Submitted:Sains Malaysiana*

Presentation of Papers at Academic and Professional Conferences

- Mutwiri R. M, Mwambi H, Slotow R and Vanak A. T. Application of Stable Distributions to the analysis of GPS-derived telemetry data. *Stochastic Modelling Techniques and Data Analysis International Conference and Demographics Workshop Lisbon, Portugal, 11-14 June 2014*
- Robert Mutwiri, Thomas Achia, Henry Mwambi, Rob Slotow and Abi Vanak Statistical fit of empirical distributions to GPS derived animal movement data, *International Conference APPLIED STATISTICS 2013*.
- Mutwiri, R.M, Mwambi H, and Slotow R. A set of circular Statistical models of GPS tracking data with application to elephant movement. *(Presented at South Africa Statistical Association (SASA) conference 2013 at university of Limpopo, South Africa)*.

Books/Book Chapters Published