Prof. Atinuke O. Adebanji

Department of Statistics and Actuarial Science
Kwame Nkrumah University of Science and Technology

ORCID 0000-0002-1239-6423 · Profile knust.peerford.com/staff/cd193d3f-0111-433a-8857-87fea461d40c

RESEARCH

Areas: Statistics and Probability · Transportation · Automotive Engineering · Global and Planetary Change · General Health Professions · Pediatrics, Perinatology and Child Health

RESEARCH SUMMARY

62	394	10	10	1.28	11%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 62 publications listed below, 2004–2026. Field-weighted impact is the mean over the 62 works scored for it; 1.00 is the world average for works of the same field, type and year. 7 of the 62 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 59

1. Kassim Tawiah, Nana Kena Frempong, **Atinuke Olusola Adebanji**, Killian Asampana Asosega, Richard Kwame Ansah (2026). A Newton-Raphson approach to trivariate Poisson regression modeling: a simulation study. *Journal of Simulation*. https://doi.org/10.1080/17477778.2026.2652453
2. Killian Asampana Asosega, Eric N. Aidoo, **Atinuke Olusola Adebanji**, Ellis Owusu-Dabo (2026). Bayesian Spatial Conditional Logistic Regression Modelling of Overweight/Obesity Prevalence and Determinants Among Women in Ghana, Accounting for Contraceptive Use. *Global Health*. https://doi.org/10.1155/ghe3/3074676
3. Phyllis N. Muniu, Jeremis N. Morales Morales, Joshua Atsu, Folashade B. Agusto, Carmen Caiseda, Jarron M. Saint Onge, **Atinuke Adebanji** (2026). Exploring the spatiotemporal effects of domestic violence in Puerto Rico during the COVID-19 period: a geographically and temporally weighted regression approach. *Frontiers in Public Health*. https://doi.org/10.3389/fpubh.2026.1776190
4. George Bamwebaze, Gichuhi Anthony Waititu, Richard O. Awichi, **Atinuke Olusola Adebanji** (2026). Formulation of a spatiotemporal model for the analysis of neonatal mortality amidst SDG interventions: The case of Uganda. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0323859
5. Lydia Boampong Owusu, Nicholin Scheepers, **Atinuke Olusola Adebanji**, Immaculate Sabelile Tenza (2026). Knowledge, Attitude and Practice of Research Utilization Among Clinical Nurses and Midwives: Empirical Research Quantitative. *Nursing Open*. https://doi.org/10.1002/nop2.70545
6. Kassim Tawiah, Nana Kena Frempong, **Atinuke Olusola Adebanji**, Richard Kwame Ansah (2026). Modeling of Years of Cohabitation, Children Ever Born, and Number of Living Children of Women of Reproductive Age Using Trivariate Poisson Regression. *Health Science Reports*. https://doi.org/10.1002/hsr2.72982
7. Famoussa Dembélé, Stephen Adu-Bredu, Reginald Tang Guuroh, Eunice Okyere Agyapong, Padmore Boateng Ansah, Nat Owusu-Prempeh, Bismark Owusu, Dzigbordi Solomon-Ayeh, Suleiman Usman Yunusa, Aboubakar Bengaly, Larissa Raatz, Roman Hinz, **Atinuke Adebanji**, Samuel Kingsley Oppong, Rüdiger Schaldach, Amanuel Woldeselassie Gebremichael, Anja Linstädter (2026). Seasonal dynamics of soil CO2 efflux across land use systems and implications for mitigation under a changing climate. *Scientific Reports*. https://doi.org/10.1038/s41598-026-50708-7
8. Ajibola Taiwo Sóyínká, Akin Adeseye Olósundé, **Atinuke Olusola Adébánjí** (2026). Stochastic copula modelling of multivariate Johnson's Systems of Distribution. *Statistical Papers*. https://doi.org/10.1007/

s00362-025-01794-8

9. Kwame Kwakwa Osei, Charles Anum Adams, Williams Ackaah, **Atinuke Adebanji** (2025). A confirmatory factor analysis of road users' cognitive attitudes towards contributing factors of traffic congestion. *Discover Cities*. https://doi.org/10.1007/s44327-025-00053-7

10. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah, Augustus Ababio-Donkor (2025). Gaining insight into the travel time characteristics of paratransit trips: assessing the impact of a limited stops and dwell time policy. *Transportation research procedia*. https://doi.org/10.1016/j.trpro.2025.05.051

11. Killian Asampana Asosega, **Atinuke Olusola Adebanji**, Eric Nimako Aidoo, Ellis Owusu-Dabo, Kassim Tawiah (2025). Malaria prevalence dynamics and risk covariates among children under 5 in Ghana: insights from a Bayesian multilevel approach. *BMJ Open*. https://doi.org/10.1136/bmjopen-2024-088910

12. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah (2024). An artificial neural network-based model for predicting paratransit travel time. *Cogent Engineering*. https://doi.org/10.1080/23311916.2024.2386383

13. Killian Asampana Asosega, **Atinuke Olusola Adebanji**, Eric Nimako Aidoo, Ellis Owusu-Dabo (2024). Application of Hierarchical/Multilevel Models and Quality of Reporting (2010–2020): A Systematic Review. *The Scientific World JOURNAL*. https://doi.org/10.1155/2024/4658333

14. Kassim Tawiah, Killian Asampana Asosega, Samuel Iddi, Alex Akwasi Opoku, Iddrisu Wahab Abdul, Richard Kwame Ansah, Francis Kwame Bukari, Eric Okyere, **Atinuke Olusola Adebanji** (2024). Assessment of Neonatal Mortality and Associated Hospital-Related Factors in Healthcare Facilities Within Sunyani and Sunyani West Municipal Assemblies in Bono Region, Ghana. *Health Services Insights*. https://doi.org/10.1177/11786329241258836

15. Phyllis Tawiah, Paulina Boadiwaa Mensah, Solomon Gyabaah, **Atinuke Olusola Adebanji**, Emmanuel Konadu, Isaac Amoah (2024). Gait speed and its associated factors among older black adults in Sub-Saharan Africa: Evidence from the WHO study on Global AGEing in older adults (SAGE). *PLoS ONE*. https://doi.org/10.1371/journal.pone.0295520

16. John Kwadey Okutu, Nana K. Frempong, Simon K. Appiah, **Atinuke O. Adebanji** (2024). Generalization of Odd Ramos-Louzada generated family of distributions: Properties, characterizations, and applications to diabetes and cancer survival datasets. *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e30690

17. John Kwadey Okutu, Nana K. Frempong, **Atinuke O. Adebanji**, Simon K. Appiah (2024). Modified Ramos-Louzada-G family with baseline Weibull distribution: Properties, characterizations, regression, and applications. *Scientific African*. https://doi.org/10.1016/j.sciaf.2024.e02352

18. **Atinuke Olusola Adebanji**, Clement Asare, Samuel Asante Gyamerah (2024). Predictive analysis on the factors associated with birth Outcomes: A machine learning perspective. *International Journal of Medical Informatics*. https://doi.org/10.1016/j.ijmedinf.2024.105529

19. Samuel Akintomide Ajayi, Charles Anum Adams, Gift Dumedah, **Atinuke O. Adebanji** (2024). The Impact of Vehicle Engine Characteristics on Vehicle Exhaust Emissions for Transport Modes in Lagos City. *Urban Planning and Transport Research*. https://doi.org/10.1080/21650020.2024.2319328

20. Habib Tchoubou Foba, Folasade Adenike Bello, **Atinuke Olusola Adebanji** (2024). The effects of exclusive breastfeeding on child health in Chad: evidence from national representative survey data. *Journal of African Population Studies*. https://doi.org/10.59147/dsw7msza

21. Akosua B.K. Amaka-Otchere, Gabriel Mawuko, **Atinuke Olusola Adebanji**, Mary Magdalene Quarcoo, Fati Aziz, John Bosco Dramani, Eric Oduro-Ofori (2024). Toward sustainable energy transition: understanding electricity-use behavior among low-income urban households in Kumasi. *African Geographical Review*. https://doi.org/10.1080/19376812.2024.2399569

22. John Kwadey Okutu, Nana K. Frempong, Simon K. Appiah, **Atinuke O. Adebanji** (2023). A New Generated Family of Distributions: Statistical Properties and Applications with Real-Life Data. *Computational and Mathematical Methods*. https://doi.org/10.1155/2023/9325679

23. Lydia Boampong Owusu, Abdul-Fatawu Suglo Zakaria, Sandra Agyapong, Renna Akokre, **Atinuke Olusola Adebanji** (2023). Care of the newborn's umbilical cord: The perspectives of mothers in a developing

country. *Journal of Neonatal Nursing*. https://doi.org/10.1016/j.jnn.2023.04.012

24. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah (2023). Characterizing paratransit travel time variability and the causes of day-to-day variation. *African Transport Studies*. https://doi.org/10.1016/j.aftran.2024.100003

25. Donatus Wewura Adongo, Charles Kwaku Benneh, David Adedia, Hilda Amekyeh, Augustine Tandoh, Bernice Kyeremaah, **Atinuke Olusola Adebanji**, Simon Kojo Appiah, Eric Woode (2023). Correlates of perception and attitude towards people living with epilepsy in Adaklu District, Volta Region, Ghana. *Journal of Global Health Science*. https://doi.org/10.35500/jghs.2023.5.e16

26. Killian Asampana Asosega, Eric Nimako Aidoo, **Atinuke Olusola Adebanji**, Ellis Owusu-Dabo (2023). Examining the risk factors for overweight and obesity among women in Ghana: A multilevel perspective. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e16207

27. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah (2023). Factors affecting paratransit travel time at route and segment levels. *International Journal of Transportation Science and Technology*. https://doi.org/10.1016/j.ijtst.2023.06.001

28. Joseph Ackora-Prah, Samuel Okyere, Ebenezer Bonyah, **Atinuke Olusola Adebanji**, Yaw Boateng (2023). Optimal control model of human-to-human transmission of monkeypox virus. *F1000Research*. https://doi.org/10.12688/f1000research.130276.2

29. Wilhemina Adoma Pels, **Atinuke O. Adebanji**, Sampson Twumasi-Ankrah, Richard Minkah (2023). Shrinkage Methods for Estimating the Shape Parameter of the Generalized Pareto Distribution. *Journal of Applied Mathematics*. https://doi.org/10.1155/2023/9750638

30. **Atinuke O. Adebanji**, Franz Aschl, Ednah Chepkemoi Chumo, Emmanuel Odame Owiredu, Johannes Müller, Tukae Mbegalo (2023). Social Response and Measles Dynamics. *Stats*. https://doi.org/10.3390/stats6040079

31. John Kwadey Okutu, Nana K. Frempong, Simon K. Appiah, **Atinuke O. Adebanji** (2023). The Odd Ramos-Louzada Generator of distributions with applications to failure and waiting times. *Scientific African*. https://doi.org/10.1016/j.sciaf.2023.e01912

32. Samuel Akintomide Ajayi, Charles Anum Adams, Gift Dumedah, **Atinuke O. Adebanji**, Williams Ackaah (2023). The impact of traffic mobility measures on vehicle emissions for heterogeneous traffic in Lagos City. *Scientific African*. https://doi.org/10.1016/j.sciaf.2023.e01822

33. Fidelma Ibili, Charles A Adams, **Atinuke O Adebanji**, Samuel A Andam-Akorful (2023). The state-of-the-art of practice of traffic noise regulations in Ghana. *Noise & Vibration Worldwide*. https://doi.org/10.1177/09574565231161645

34. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah (2023). VARIABILITY OF PARATRANSIT TRAVEL TIMES: THE CASE OF KUMASI, GHANA. *Urban Planning and Transport Research*. https://doi.org/10.1080/21650020.2023.2261519

35. Thomas Kolawole Ojo, Anthony Baffour Appiah, Abena Obiri-Yeboah, **Atinuke Olusola Adebanji**, Peter Donkor, Charles Mock (2022). An intercept survey of the use and non-use of footbridges in Ghana. *Case Studies on Transport Policy*. https://doi.org/10.1016/j.cstp.2022.05.016

36. Charles Apprey, Bernice Adu Baah-Nuako, Veronica Tawiah Annaful, **Atinuke Olusola Adebanji**, Victoria Dzogbefia (2022). Dietary intake and prevalence of metabolic syndrome among tanker truck drivers in Ghana. *Nutrition & Food Science*. https://doi.org/10.1108/nfs-08-2021-0250

37. **Atinuke Adebanji**, David Rios Insua, Fabrizio Ruggeri (2022). Dynamic linear models for policy monitoring. The case of maternal and neonatal mortality in Ghana. *Socio-Economic Planning Sciences*. https://doi.org/10.1016/j.seps.2022.101348

38. Basintale D. Iddrisu, Kwadzokpui Precious Kwablah, Emmanuel Barima Agyemang Prempeh, Johnson S. Azorlibu, Solomon D. Akrong, Cynthia Sena Kpeglo, David Adedia, **Atinuke O. Adebanji**, Simon Kojo Appiah (2022). Statistical Analysis of Misfiling Causes in Higher Education: A Test Construction. *Asian Journal of Education and Social Studies*. https://doi.org/10.9734/ajess/2022/v33i330793

39. Thomas Kolawole Ojo, Anthony Baffour Appiah, Abena Obiri-Yeboah, **Atinuke Olusola Adebanji**, Peter

Donkor, Charles Mock (2022). Structural equation modeling of pedestrian behavior at footbridges in Ghana. *International Journal of Injury Control and Safety Promotion*. https://doi.org/10.1080/17457300.2022.2081984

40. Lydia Boampong Owusu, Charles Apprey, AKA Diji, **Atinuke Adebanji** (2021). Association between iron supplementation and anaemia in pregnant women in Ghana. *Nutrition & Food Science*. https://doi.org/10.1108/nfs-03-2021-0105
41. David Adedia, **Atinuke O. Adebanji**, Simon K. Appiah (2021). Calculating non-centrality parameter for power analysis under structural equation modelling: An alternative. *Pakistan Journal of Statistics and Operation Research*. https://doi.org/10.18187/pjsor.v17i1.3148
42. Eric N. Aidoo, Richard T. Ampofo, Gaston E. Awashie, Simon K. Appiah, **Atinuke O. Adebanji** (2021). Modelling COVID-19 incidence in the African sub-region using smooth transition autoregressive model. *Modeling Earth Systems and Environment*. https://doi.org/10.1007/s40808-021-01136-1
43. Killian Asampana Asosega, **Atinuke Olusola Adebanji**, Iddrisu Wahab Abdul (2021). Spatial analysis of the prevalence of obesity and overweight among women in Ghana. *BMJ Open*. https://doi.org/10.1136/bmjopen-2020-041659
44. Eric N. Aidoo, **Atinuke O. Adebanji**, Gaston E. Awashie, Simon K. Appiah (2021). The effects of weather on the spread of COVID-19: evidence from Ghana. *Bulletin of the National Research Centre/Bulletin of the National Research Center*. https://doi.org/10.1186/s42269-021-00484-3
45. David Adedia, **Atinuke O. Adebanji**, Simon Kojo Appiah (2020). Comparative Analysis of Some Structural Equation Model Estimation Methods with Application to Coronary Heart Disease Risk. *Journal of Probability and Statistics*. https://doi.org/10.1155/2020/4181426
46. Wilhemina Adoma Pels, **Atinuke Olusola Adebanji**, Sampson Twumasi-Ankrah (2020). Comparison of Parameter Estimators for Generalized Pareto Distribution under Peak over Threshold. *Mathematics and Statistics*. https://doi.org/10.13189/ms.2020.080612
47. Killian Asampana Asosega, David Adedia, **Atinuke O. Adebanji** (2020). Sensitivity Analysis of the Quadratic Discriminant Function for Predicting Pregnancy Outcomes. *Journal of Scientific Research and Reports*. https://doi.org/10.9734/jsrr/2020/v26i230225
48. Paul K. Butakor, Qi Guo, **Atinuke O. Adebanji** (2020). Using structural equation modeling to examine the relationship between Ghanaian teachers' emotional intelligence, job satisfaction, professional identity, and work engagement. *Psychology in the Schools*. https://doi.org/10.1002/pits.22462
49. **Atinuke Adebanji**, Michael Asamoah-Boaheng, Olivia Osei-Tutu (2016). Asymptotic performance of the quadratic discriminant function to skewed training samples. *SpringerPlus*. https://doi.org/10.1186/s40064-016-3204-3
50. Abukari Alhassan, Hussein Salifu, **Atinuke O. Adebanji** (2016). Discriminant analysis of farmers adoption of improved maize varieties in Wa Municipality, Upper West Region of Ghana. *SpringerPlus*. https://doi.org/10.1186/s40064-016-3196-z
51. David Adedia, **Atinuke Adebanji**, Eric Okyere, James Agyen (2016). Leverages, Outliers and the Performance of Robust Regression Estimators. *British Journal of Mathematics & Computer Science*. https://doi.org/10.9734/bjmcs/2016/24281
52. **Atinuke Adebanji**, Michael Asamoah-Boaheng, Olivia Osei-Tutu (2016). Robustness of the Quadratic Discriminant Function to correlated and uncorrelated normal training samples. *SpringerPlus*. https://doi.org/10.1186/s40064-016-1718-3
53. R. Puurbalanta, **A. O. Adebanji** (2015). Determinants of Low Birth Weight Neonates: A Case Study of Tamale Metropolis in Ghana.
54. Rolandl Osuoji, **Atinuke Adebanji**, MorufA Abdulsalam, MobolajiA Oludara, AbimbolaA Abolarinwa (2015). Determinants of specialty choice of resident doctors; Case study- among resident doctors in Nigeria. *Nigerian Journal of Medicine*. https://doi.org/10.4103/1115-2613.278929
55. David Adedia, **Atinuke Adebanji**, Moremi Labeodan, Shola Adeyemi (2015). Ordinary Least Squares and Robust Estimators in Linear Regression: Impacts of Outliers, Error and Response Contaminations. *British*

Journal of Mathematics & Computer Science. https://doi.org/10.9734/bjmcs/2016/22876

56. Louis Asiedu, **Atinuke Adebanji**, Francis Oduro, Felix Mettle (2015). Statistical Assessment of PCA/SVD and FFT-PCA/SVD on Variable Facial Expressions. *British Journal of Mathematics & Computer Science*. https://doi.org/10.9734/bjmcs/2016/22141

57. Louis Asiedu, **Atinuke O. Adebanji**, Francis Oduro, Felix O. Mettle (2015). Statistical Evaluation of Face Recognition Techniques under Variable Environmental Constraints. *International Journal of Statistics and Probability*. https://doi.org/10.5539/ijsp.v4n4p93

58. Michael Asamoah-Boaheng, **Atinuke O. Adebanji**, Nkansah Ababio (2014). Comparing the Performance of Zero Mean Classification Functions under Unequal Misclassification Cost. *American Journal of Applied Mathematics and Statistics*. https://doi.org/10.12691/ajams-2-6-9

59. Lea Anzagra, **Atinuke O. Adebanji**, Peter T. Birteeb (2013). Average Time to Justice Delivery; A Case Study in the Upper West and East Regional District and Circuit Courts in Ghana. *Developing Country Studies*.

Book chapters 1

1. **Atinuke Adebanji**, Salami Suleiman (2022). Women in STEM, Progress and Prospects: The Case of a Ghanaian University. https://doi.org/10.1201/9781003261148-18

Conference papers 2

1. George Ukam, Charles Adams, **Atinuke Adebanji**, Williams Ackaah (2023). Investigating factors affecting Paratransit Travel Times: Perspectives from two Paratransit Routes in Kumasi, Ghana. *E3S Web of Conferences*. https://doi.org/10.1051/e3sconf/202341802008

2. **ATINUKE O. ADEBANJI**, K. SAGARY NOKOE (2004). EVALUATING THE QUADRATIC CLASSIFIER. https://doi.org/10.1142/9789812702487_0020