Prof. Gabriel A. Okyere

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RESEARCH

Areas: Economics and Econometrics · Statistics and Probability · Finance · Public Health, Environmental and Occupational Health · Education · Epidemiology

RESEARCH SUMMARY

42	195	6	4	0.59	13%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 42 publications listed below, 2012–2026. Field-weighted impact is the mean over the 31 works scored for it; 1.00 is the world average for works of the same field, type and year. 4 of the 31 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Prof. 2003–present
Statistics and Actuarial Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

Ph.D/ Dr. 2007–2011
Statistics, Western Michigan University, Kalamazoo, United States

M.S. /Mr 2005–2007
Department of Mathematics and Statistics, University of Nevada Reno University Libraries, Reno, United States

M.Sc. /Mr 2000–2003
Mathematics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

B.Sc. /Mr 1993–1997
Mathematics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 39

1. Francis Atsu Soku, **Gabriel Asare Okyere**, Sylvester Ali Frimpong, Francis Kwadwo Awuah (2026). An APOS Analysis of Students' Mental Construction of the Unbiasedness of the Maximum Likelihood Estimator. *African Journal of Research in Mathematics Science and Technology Education*. https://doi.org/10.1080/18117295.2026.2693344
2. Yaw Bimpeh, **Gabriel Asare Okyere** (2026). D-Optimal Adaptive Comparative Judgment. *Measurement Interdisciplinary Research and Perspectives*. https://doi.org/10.1080/15366367.2026.2669969
3. Francis Atsu Soku, **Gabriel Asare Okyere**, Francis Kwadwo Awuah (2025). APOS Theory-based research in Mathematics Education: A systematic literature review. *East African Journal of Education Studies*. https://doi.org/10.37284/eajes.8.2.3070
4. **GA Okyere** (2025). Delaware, USA scispub@ gmail. com Mon.-Fri. 9: 00-18: 00. *Journal of Mathematics*.

http://www.ss-pub.org/jmss/a-robust-procedure-for-the-fit-of-oneway-anova-model-under-adaptation-on-the-observed-samples/

5. Francis Ayiah-Mensah, Senyefia Bosson-Amedenu, **Gabriel Okyere**, George Oduro-Okyireh (2025). System Drivers of Hypertension Control in Africa: A Beta Regression and Dynamic Factor Modeling Approach. *Asian Journal of Medicine and Health*. https://doi.org/10.9734/ajmah/2025/v23i121332
6. Kofi Afriyie Nyamekye, **Gabriel Asare Okyere**, Emmanuel De-Graft Johnson Owusu-Ansah, Obi Berko Obeng Damoah, Joseph Quarshie, Josephine Asenso-Twum (2023). Financial innovation and banks performance in developing countries: Evidence from Ghana. *Business Strategy & Development*. https://doi.org/10.1002/bsd2.259
7. Robert Gyebi, **Gabriel Asare Okyere**, Emmanuel Kwaku Nakua, Franklin Aseidu-Bekoe, Jane Serwaa Akoto Nti, Emmanuel Owusu Ansah, Felix Agyemang Opoku (2023). Prediction of measles patients using machine learning classifiers: a comparative study. *Bulletin of the National Research Centre/Bulletin of the National Research Center*. https://doi.org/10.1186/s42269-023-01079-w
8. **Gabriel A. Okyere**, Albert A. Saah, William Oduro, James B. Achamfour, Samuel Amoako (2023). Students' Satisfaction of Blended Problem-Based Learning: An Academic Experience at Kwame Nkrumah University of Science and Technology. *Education Research International*. https://doi.org/10.1155/2023/6005752
9. David Adjei, **Gabriel Asare Okyere** (2023). Topological Data Analysis and Computer Science. *International Journal of Mathematics Trends and Technology*. https://doi.org/10.14445/22315373/ijmtt-v69i1p504
10. Gilbert Biney, **Gabriel Asare Okyere**, Abukari Alhassan (2020). Adaptive Scheme for ANOVA Models. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2020/v35i430266
11. Godwin Onwona-Agyeman, Francis T. Oduro, **Gabriel Asare Okyere**, Awudu Obeng (2020). Error Analysis of Meshfree Approximation in Nonlinear Black-Scholes Model. *Asian Journal of Probability and Statistics*. https://doi.org/10.9734/ajpas/2020/v8i330210
12. Damianus Kofi Owusu (MSc),, **Gabriel Asare Okyere (PhD)**,, Isaac Akpor Adjei (MPhil) (2019). A GLM Model for Predicting Students' Academic Performance in Further Mathematics: A Multiple Logistic Regression. *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.3364275
13. Ivy Barley, **Gabriel Asare Okyere**, Henry Man'tieebe Kpamma, James Baah Achamfour, David Kweku, Godfred Zaachi (2019). An Efficient Copula under Data Perturbations Across Stock Markets. *Mathematics and Statistics*. https://doi.org/10.13189/ms.2019.070202
14. George Theodore Azu-Tungmah, Francis T. Oduro, **Gabriel A. Okyere** (2019). Analysis of an Age-Structured Malaria Model Incorporating Infants and Pregnant Women. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2019/46649
15. **Gabriel Asare Okyere**, Godfred Zaachi, Emmanuel K. Owusu-Mintah, Charles K. Amponsah (2019). Bivariate Copula Based Models for the Dependence of Maternal Mortality Ratio(MMR) on Gross Domestic Product(GDP) and Total Fertility Rate(TFR). *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2019/v33i230172
16. George Theodore Azu-Tungmah, Francis T. Oduro, **Gabriel A. Okyere** (2019). Optimal Control Analysis of an Age-Structured Malaria Model Incorporating Children under Five Years and Pregnant Women. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2019/v30i630096
17. **GA Okyere**, M Thompson (2019). Problem based learning resources and exposure in higher education: Evidence from the Kwame Nkrumah University of Science and Technology. *Library Philosophy and Practice*. https://search.proquest.com/openview/20631493061c4c8eb689da0a6d59dcea/1?pq-origsite=gscholar&cbl=54903
18. Philomena Marfo, **G.A. Okyere** (2019). The accuracy of effect-size estimates under normals and contaminated normals in meta-analysis. *Heliyon*. https://doi.org/10.1016/j.heliyon.2019.e01838
19. **Gabriel Okyere**, Silverius Bruku, Richard Tawiah, Gilbert Biney (2018). Adaptive Robust Profile Analysis of a Longitudinal Data. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/

jamcs/2018/42361

20. Paul Larbi, Vincent K. Dedu, **Gabriel A. Okyere** (2018). Determinants of low birth weight in the Lower Manya Krobo Municipality of the Eastern region of Ghana. *International Journal of Reproduction Contraception Obstetrics and Gynecology*. https://doi.org/10.18203/2320-1770.ijrcog20184483
21. B. Mac-Issaka, **G. A. Okyere**, H. M. Kpamma, K. Boateng, J. B. Achamfour, D. Kweku (2018). Valuation of Surrender Options Based of an Insured with Multi-morbidity. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2018/43700
22. **Gabriel Asare Okyere**, Richard Tawiah, Richard Bruce Lamptey, William Oduro, Michael Thompson (2017). An assessment of resource availability for problem based learning in a Ghanaian University setting. *Quality Assurance in Education*. https://doi.org/10.1108/qae-12-2015-0046
23. RB Lamptey, **GA Okyere**, MO Thompson (2017). E-learning utilization and experiences in higher education: insights from KNUST-based BSU survey. *Journal of Science and Technology (Ghana)*. https://scholar.google.com/scholar?cluster=18155432043305222264&hl=en&oi=scholarr
24. George Azu-Tungmah, Francis Oduro, **Gabriel Okyere** (2017). Estimating the Parameters of a Disease Model from Clinical Data. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2017/34641
25. S Opuni-Basoa, F Oduro, **G Okyere** (2017). Population Dynamics in Optimally Controlled Economic Growth Models: Case of Cobb-Douglas Production Function. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2017/36753
26. S Opuni-Basoa, F Oduro, **G Okyere** (2017). Population Dynamics in Optimally Controlled Economic Growth Models: Case of Cobb-Douglas Production with Human Capital. *Asian Research Journal of Mathematics*. https://doi.org/10.9734/arjom/2017/37189
27. S Opuni-Basoa, F Oduro, **G Okyere** (2017). Population Dynamics in Optimally Controlled Economic Growth Models: Case of Linear Production Function. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2017/35984
28. **GA Okyere** (2016). A robust procedure for the fit of oneway ANOVA model under adaptation on the observed samples. *Journal of Mathematics and Statistical Science*. https://www.academia.edu/download/49319042/JMSS16032201.pdf
29. **GA Okyere** (2016). Social networks, uptake of business development programs, and development of microfinance in rural Ghana: A case study of Ahanta West District. *International Journal of Innovative Research and Advanced Studies*. https://www.academia.edu/download/122386203/paper_2.pdf
30. **GA Okyere** (2015). Determinants of survival in adult HIV clients on antiretroviral therapy in lawra and jirapa districts of upper west region, Ghana. *Journal of the International Association of Providers of AIDS Care (JIAPAC ...*
31. **Gabriel Asare Okyere**, Richard Tawiah, Kwaafo Awuah-Mensah (2015). Multimorbidity and Unobserved Heterogeneity in the Study of Clinical Mortality. *Universal Journal of Public Health*. https://doi.org/10.13189/ujph.2015.030302
32. Gabriel Obed Fosu, Eric Amoo Bondzie, **Gabriel Asare Okyere** (2014). Does Foreign Direct Investment really affect Ghana's Economic Growth? *International Journal of Academic Research in Economics and Management Sciences*. https://doi.org/10.6007/ijarems/v3-i1/602
33. **G Asare Okyere**, GO Fosu (2014). Granger causality analysis of some macroeconomic variables in Ghana. *Journal of Research in Business and Management*. https://www.academia.edu/download/33936340/Granger_online.pdf
34. **G Asare Okyere**, GO Fosu (2014). On the Bifurcation Analysis of the Ramsey-Cass-Koopmans Growth Models. *International Journal of Innovation in Science and Mathematics*. https://scholar.google.com/scholar?cluster=10606051515383284941&hl=en&oi=scholarr
35. Gabriel Obed Fosu, Awudu Obeng, Francis T. Oduro, **Gabriel Asare Okyere** (2014). THE CRANK NICOLSON METHOD COUPLED WITH PROJECTED SUCCESSIVE OVER RELAXATION IN VALUING STANDARD OPTION WITH DIVIDEND PAYING STOCK. *Journal of Global Research in Mathematical*

Archives(JGRMA).

36. **Gabriel Asare Okyere**, Paul Awinbil Alalbil, Henry Ping-Naah, Yakubu Tifere (2013). Determinants of Survival in Adult HIV Clients on Antiretroviral Therapy in Lawra and Jirapa Districts of Upper West Region, Ghana. *Journal of the International Association of Providers of AIDS Care (JIAPAC)*. https://doi.org/10.1177/2325957413500531
37. FT Oduro, **GA Okyere** (2013). Time series forecast of New Hiv cases in the Ashanti Region of Ghana. *International Journal of Scientific & Engineering Research*. https://www.academia.edu/download/83976955/Time_Series_Forecast_of_New_HIV_Cases_in20220412-1-zhcu91.pdf
38. Kwaku Forkuoh Darkwah, **Gabriel Asare Okyere**, Boakye Agyemang (2012). Intervention analysis of serious crimes in the eastern region of Ghana. https://doi.org/10.18533/ijbsr.v2i7.125
39. Francis Oduro, **Gabriel A. Okyere**, George Theodore Azu-Tungmah (2012). Transmission Dynamics of Malaria in Ghana. *Journal of Mathematics Research*. https://doi.org/10.5539/jmr.v4n6p22

Book chapters 2

1. Faustus Domebale Maale, **Gabriel Asaare Okyere**, O. Olawale Awe (2024). Effects of Imputation Techniques on Predictive Performance of Supervised Machine Learning Algorithms. *STEAM-H: Science, Technology, Engineering, Agriculture, Mathematics & Health*. https://doi.org/10.1007/978-3-031-72215-8_2
2. Richard Bruce Lamptey, **G Okyere** (2020). Problem-Based Learning at Kwame Nkrumah University of Science and Technology: Reporting on Policies, Practices and Needs. *International Research Symposium on Problem-Based Learning 2020: Educate for the future*. https://research.monash.edu/en/publications/problem-based-learning-at-kwame-nkrumah-university-of-science-and/

Conference papers 1

1. Dominic Owusu Abeyie, **Gabriel Asare Okyere** (2026). Optimal Stochastic Control of Pension Asset Sustainability for Ghana's Basic National Social Security Scheme. https://doi.org/10.3390/proceedings2026149003