Richard Kena Boadi

Research Centre
Kwame Nkrumah University of Science and Technology

Google Scholar scholar.google.com/citations?user=sAsYDVMAAAAJ&hl=en · Profile knust.peerford.com/staff/48f8b477-b7c7-43f0-b03c-d44a6d0615ac

RESEARCH

Interests: Complex Hyperbolic Geometry · Elliptic Curves

Areas: Economics and Econometrics · Statistical and Nonlinear Physics · Condensed Matter Physics · Geometry and Topology · Mathematical Physics · Atomic and Molecular Physics, and Optics

RESEARCH SUMMARY

19	133	6	3	1.18	8%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 19 publications listed below, 2013–2026. Field-weighted impact is the mean over the 12 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 12 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 19

1. Richard Kwame Ansah, **Richard Kena Boadi**, Kassim Tawiah (2026). Limit theorems for the multispecies Curie-Weiss Potts model. *The European Physical Journal Plus*. https://doi.org/10.1140/epjp/s13360-026-07845-9
2. Richard Kwame Ansah, **Richard Kena Boadi**, Kassim Tawiah, Dorcas Attuabea Addo (2026). Mean-field modelling of opinion polarization and structural misinformation susceptibility in online communities. *Journal of Statistical Mechanics Theory and Experiment*. https://doi.org/10.1088/1742-5468/ae8436
3. Richard Kwame Ansah, **Richard Kena Boadi**, William Obeng-Denteh, Killian Asampana Asosega, Kassim Tawiah (2025). Exploring cooking fuel choices among Ghanaian women of reproductive age: A socio-economic analysis from a statistical mechanics perspective. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0317004
4. Richard Kwame Ansah, **Richard Kena Boadi**, William Obeng-Denteh, Kassim Tawiah, Sampson Takyi Appiah (2024). Exploring mean field spin models with multiple populations: A theoretical framework. *AIP Advances*. https://doi.org/10.1063/5.0194693
5. Richard Kwame Ansah, Alex Akwasi Opoku, Kassim Tawiah, **Richard Kena Boadi**, Bridget Nana-Ama Gana, Sampson Tackie, Maud Avevor Ayornu, Stephen Manu Ampofo Mills (2024). Mathematical modelling of decision making: the case of motor insurance choices. *Journal of Mathematics in Industry*. https://doi.org/10.1186/s13362-024-00148-7
6. Richard Kwame Ansah, Prosper Ablordeppey, **Richard Kena Boadi**, Kassim Tawiah (2024). Numerical simulations of AI–human interaction using quintic mean-field Ising model. *AIP Advances*. https://doi.org/10.1063/5.0225968
7. Richard Kwame Ansah, Sampson Tackie, Rhodaline Abena Twum, Kassim Tawiah, **Richard Kena Boadi**, Dorcas Attuabea Addo, Samuel Effah-Poku, David Delali Zigli (2024). The relationship between anaemia and the use of treated bed nets among pregnant and non-pregnant women in Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0300431
8. Richard Kwame Ansah, **Richard Kena Boadi**, William Obeng-Denteh, Kassim Tawiah (2023). Inverse

problem for the quartic mean-field Ising model. *The European Physical Journal Plus*. https://doi.org/10.1140/epjp/s13360-023-04251-3

9. **Richard Kena Boadi**, J. B., J. K. (2019). A Proposed New Framework for Securing Cloud Data on Multiple Infrastructures using Erasure Coding, Dispersal Technique and Encryption. *International Journal of Computer Applications*. https://doi.org/10.5120/ijca2019918681
10. **Richard Kena Boadi**, JB Hayfron-Acquah (2016). A proposed algorithm for generating the Reed-Solomon Encoding Polynomial Coefficeints over GF (256) for RS [255,223] 8, 32. *International Journal of Computer Applications*. https://www.academia.edu/download/52136166/twum-2016-ijca-912342.pdf
11. AY Omari-Sasu, **RK Boadi** (2016). Logit Model for the determinants of drug driving in Ghana. *International Journal of Statistics and Application*. https://www.academia.edu/download/103015932/showpaperpdf.pdf
12. **R Boadi**, W Obeng-Denteh, AY Omari-Sasu (2016). Review of the birch and swinnerton-dyer conjecture. *Am J Math Stat*. https://www.academia.edu/download/110718779/showpaperpdf.pdf
13. AY Omari-Sasu, **RK Boadi** (2016). Statistical models for count data with applications to road accidents in Ghana. *International Journal of Statistics and Applications*. https://scholar.google.com/scholar?cluster=19035069160786386 71&hl=en&oi=scholarr
14. Dickson Y.B. Annor, **Richard K. Boadi** (2016). Traces in SL(3,C) and SU(2,1) Groups. *International Journal of Pure Mathematical Sciences*. https://doi.org/10.18052/www.scipress.com/ijpms.17.19
15. IK Owusu, **RK Boadi** (2015). Logistics Regression Analysis of Risk Factors Associated with Hypertension in Kumasi Metropolis, Ghana. *Open Science Journal of Clinical Medicine*. https://scholar.google.com/scholar?cluster=5458052223454714714&hl=en&oi=scholarr
16. Akoto Yaw Omari-Sasu, Nana Kena Frempong, Maxwell Akwasi Boateng, **Richard Kena Boadi** (2015). Modeling Stock Market Volatility Using GARCH Approach on the Ghana Stock Exchange. *International Journal of Business and Management*. https://doi.org/10.5539/ijbm.v10n11p169
17. **Richard K. Boadi**, John R. Parker (2015). Mostow's lattices and cone metrics on the sphere. *Advances in Geometry*. https://doi.org/10.1515/advgeom-2014-0022
18. FT Oduro, **RK Boadi** (2014). Statistical analysis of Ghanaian students attitude and interest towards learning mathematics. *International Journal of Education and Research*. https://www.academia.edu/download/77789346/56.pdf
19. I Owusu, **R Boadi** (2013). Cardiovascular risk profile of patients seen at a cardiac clinic in Kumasi, Ghana. *The Internet Journal of Health*. https://www.academia.edu/download/78162154/14539.pdf