Bernard Oduoku Bainson

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RESEARCH

Interests	Algebra · Category theory · Group theory and Topology
Areas	Geometry and Topology · Computational Theory and Mathematics · Mathematical Physics · Accounting · Algebra and Number Theory · Applied Mathematics

RESEARCH SUMMARY

9	8	2	0	0.69	14%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 9 publications listed below, 2016–2026. Field-weighted impact is the mean over the 7 works scored for it; 1.00 is the world average for works of the same field, type and year. 1 of the 7 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2018–present
Mathematics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

African Institute for Mathematical Sciences 2017–2018
Rwanda, Rwanda

EDUCATION AND QUALIFICATIONS

PhD student 2013–2016
Mathematics, Heriot Watt University, Edinburgh, United Kingdom

Masters Student 2012–2013
Kwame Nkrumah University of Science and Technology / African Institute for Mathematical Science, Kumasi, Ghana

Student 2007–2011
Mathematics, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 8

1. Rebecca Awerigiya, Fredrick Asenso Wireko, **Bernard Oduoku Bainson**, Adu Sakyi, Isaac Kwasi Adu, Joshua Nii Martey, Joshua Kiddy K. Asamoah (2026). Modeling the impact of community information dissemination on the transmission dynamics of lymphatic filariasis. *Scientific Reports*. https://doi.org/10.1038/s41598-026-48000-9
2. GO Fosu, FA Wireko, **BO Bainson** (2026). Modelling Seasonal Traffic Instability and Congestion Dynamics in Rural Agricultural Transport Systems Using a Second-Order Macroscopic Framework. *Results in Engineering*. https://www.sciencedirect.com/science/article/pii/S2590123026043641
3. Fredrick A. Wireko, Rebecca Awerigiya, Isaac K. Adu, Joshua N. Martey, **Bernard O. Bainson**, Joshua Kiddy K. Asamoah (2025). The Impact of Memory Effects on Lymphatic Filariasis Transmission Using Incidence Data From Ghana. *Engineering Reports*. https://doi.org/10.1002/eng2.70288

4. Kossi Amouzouvi, Sahar Vahdati, Bowen Song, **Bernard O. Bainson**, Nur A. Zarin Nishat, Jens Lehmann (2024). A Study of LFT Embeddings in the Second Order Clifford Algebra Cl (R^2,°). *IEEE Access*. https://doi.org/10.1109/access.2024.3514303
5. I. Issaka, **B.O. Bainson**, W. Obeng-Denteh, I.K. Dontwi (2024). On the fixed points theory of strong partial b- metric spaces. *Science World Journal*. https://doi.org/10.4314/swj.v19i3.31
6. **B. O. Bainson**, N. D. Gilbert (2021). Cohomology and extensions of ordered groupoids. *Journal of Algebra and Its Applications*. https://doi.org/10.1142/s0219498822501778
7. Ihechukwu Chinyere, **Bernard Oduoku Bainson** (2021). Perfect Prishchepov groups. *Journal of Algebra*. https://doi.org/10.1016/j.jalgebra.2021.09.005
8. **B.O. Bainson**, N.D. Gilbert (2020). The homology of principally directed ordered groupoids. *Homology Homotopy and Applications*. https://doi.org/10.4310/hha.2020.v22.n2.a10

Theses 1

1. **BO Bainson** (2016). Homology, cohomology and extensions of ordered groupoids. *Heriot-Watt University*. https://www.ros.hw.ac.uk/items/05355971-4562-48e3-b475-a08ecc654c91