Agnes Adom-Konadu

Lecturer · Department of Mathematics
University of Cape Coast

ORCID 0000-0002-1916-0560 · Lens Profile lens.org/lens/orcid/0000-0002-1916-0560 · Google Scholar scholar.google.com/citations?user=STsOUrgAAAAJ&hl=en · Profile scholar.ucc.edu.gh/staff/2e87d154-11ab-4b39-b442-fc45a80c29ff

PROFILE

Agnes Adom-Konadu has expertise in utilizing the concepts of ordinary differential equations, optimal control theory, and fractional derivatives to acquire knowledge about the qualitative behavior of nonlinear dynamical systems resulting from mathematical modeling of natural science phenomena, with a particular emphasis on disease transmission dynamics and control.

RESEARCH

Interests	Disease modelling · epidemiology · Mathematical modelling · Infectious Disease Epidemiology · Fractional calculus · Infectious Disease modelling · mathematical Biology
Areas	Public Health, Environmental and Occupational Health · Economics and Econometrics · Modeling and Simulation · Genetics · Infectious Diseases · Statistical and Nonlinear Physics

RESEARCH SUMMARY

16	158	5	3	2.11	21%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 16 publications listed below, 2020–2026. Field-weighted impact is the mean over the 14 works scored for it; 1.00 is the world average for works of the same field, type and year. 3 of the 14 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer
Department of Mathematics, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

Lecturer
Department of Mathematics, University of Cape Coast, Cape Coast, Ghana

DISTINCTIONS, MEMBERSHIPS AND SERVICE

member 2023–present
University of Cape Coast, Ghana Science Association, Cape Coast, Ghana

member 2022–present
Young Members Network, Graduate Women International, Cape Coast, Ghana

member 2020–present
Organization for Women in Science for the Developing World, Trieste, Italy

member 2019
African Women in Mathematics, Cape Coast, Ghana

PUBLICATIONS

Journal articles 15

1. Anderson O. Akponeware, Sandra Chukwudumebi Obiora, Mercy Ogunnusi, Temitope Omotayo, Kudirat Ayinla, Regina E. Turkson, **Agnes Adom-Konadu**, Vanessa B. Sappor (2026). Reframing Gendered Leadership in STEM Higher Education: Comparative Insights on Power, Progression, and Institutional Disruption. *Education Sciences*. https://doi.org/10.3390/educsci16060841
2. M. Anokye, L. Guerrini, M. Ferrara, Albert L. Sackitey, **Agnes A. Konadu** (2026). Stability and Bifurcation in a Delayed Predator–Prey Model with Environmental Stress and Dynamic Carrying Capacity. *Differential Equations and Dynamical Systems*. https://doi.org/10.1007/s12591-026-00765-1
3. **Agnes Adom-Konadu**, Albert Lanor Sackitey, Joshua Kiddy K. Asamoah, Martin Anokye, Emmanuel Donkor (2025). Analyzing the impact of prevention strategies of a fractional order malaria model using Adam–Bashforth approach. *Franklin Open*. https://doi.org/10.1016/j.fraope.2025.100277
4. M. Anokye, A. L. Sackitey, **Agnes Adom-Konadu**, Samuel E. Assabil, Luca Guerrini, M. F. Ofori, Massimiliano Ferrara (2025). Behavioral Cobweb Dynamics With Anticipatory Inventory and Ulam Stability: An Integro-Differential Approach. *Mathematical Methods in the Applied Sciences*. https://doi.org/10.1002/mma.70264
5. Adusei-Poku Afful, Ernest Yankson, **Agnes Adom-Konadu** (2025). Existence and stability of solutions of totally nonlinear neutral Caputo q-fractional difference equations. *Cubo*. https://doi.org/10.56754/0719-0646.2703.635
6. Sarafa A. Iyaniwura, Qing Han, Ngem Bede Yong, Ghislain Rutayisire, **Agnes Adom-Konadu**, Okwen Patrick Mbah, David Poumo Tchouassi, Kingsley Badu, Jude Dzevela Kong (2025). Regional variation and epidemiological insights in malaria underestimation in Cameroon. *Infectious Disease Modelling*. https://doi.org/10.1016/j.idm.2025.05.006
7. Martin Anokye, Sampson Z. Nkangbi, **Agnes A. Konadu**, Albert L. Sackitey, John A. Mensah, Luca Guerrini, Massimiliano Ferrara (2025). Stability analysis of a delay logistic growth model with nonlinear harvesting. *Quality & Quantity*. https://doi.org/10.1007/s11135-025-02203-w
8. Martin Anokye, Benedict Barnes, Samuel E. Assabil, Eric Okyere, **Agnes A. Konadu** (2024). Fractional-Order Delay Cobweb Model and Its Price Dynamics. *International Journal of Differential Equations*. https://doi.org/10.1155/2024/1209433
9. **Agnes Adom-Konadu**, Ebenezer Bonyah, Albert Lanor Sackitey, Martin Anokye, Joshua Kiddy K. Asamoah (2023). A fractional order Monkeypox model with protected travelers using the fixed point theorem and Newton polynomial interpolation. *Healthcare Analytics*. https://doi.org/10.1016/j.health.2023.100191
10. Martin Anokye, Benedict Barnes, Francis Ohene Boateng, **Agnes Adom-Konadu**, John Amoah-Mensah (2023). Price Dynamics of a Delay Differential Cobweb Model. *Discrete Dynamics in Nature and Society*. https://doi.org/10.1155/2023/1296562
11. **Agnes Adom-Konadu**, Ernest Yankson, Samuel M. Naandam, Duah Dwomoh (2022). A Mathematical Model for Effective Control and Possible Eradication of Malaria. *Journal of Mathematics*. https://doi.org/10.1155/2022/6165581
12. Jerry Opoku-Ansah, Ewura Seidu Yahaya, Charles Lloyd Yeboah Amuah, Regina Nyorkeh, **Agnes Adom-Konadu**, Peter Osei-Wusu Adueming, Ernest Teye (2022). A feasibility study on the use of a pocket-sized NIR spectrometer and multivariate algorithm to distinguish expired drugs from unexpired ones. *Analytical Methods*. https://doi.org/10.1039/d2ay00541g
13. Martin Anokye, **Agnes Adom-Konadu**, AL Sackitey (2022). Delay Logistic Model with Harvesting on Weighted Average Population. *Advances in Dynamical Systems and Applications (ADSA)*. https://scholar.google.com/scholar?cluster=15789293195350432094&hl=en&oi=scholarr
14. Martin Anokye, Elvis Kobina Donkoh, Michael Fosu Ofori, **Agnes Adom-Konadu** (2022). Full Delay Logistic Population Model with Sustainable Harvesting. *Journal of Applied Mathematics*. https://doi.org/10.1155/2022/6777827

15. Joshua Kiddy K. Asamoah, Eric Okyere, Ernest Yankson, Alex Akwasi Opoku, **Agnes Adom-Konadu**, Edward Acheampong, Yarhands Dissou Arthur (2022). Non-fractional and fractional mathematical analysis and simulations for Q fever. *Chaos Solitons & Fractals*. https://doi.org/10.1016/j.chaos.2022.111821

Theses 1

1. **Agnes Adom-Konadu** (2020). A mathematical model for effective control and possible eradication of malaria. *PhD thesis*.