Prof. MARTIN ANOKYE

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PROFILE

Professor Martin Anokye

RESEARCH

Interests	Dynamical Systems
Areas	Economics and Econometrics · Public Health, Environmental and Occupational Health · Modeling and Simulation · Statistical and Nonlinear Physics · Management Science and Operations Research · Plant Science

RESEARCH SUMMARY

30	278	8	5	1.35	25%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 30 publications listed below, 2012–2026. Field-weighted impact is the mean over the 20 works scored for it; 1.00 is the world average for works of the same field, type and year. 5 of the 20 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2016–present
Mathematics, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

Professor 2013–2016
Mathematics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 29

1. **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
2. 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
3. **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
4. **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

5. **Martin Anokye** (2024). A Logistic Growth Model with Discrete-Time Delay and a Restriction on Harvesting. *Journal of Mathematics*. https://doi.org/10.1155/2024/6263903

6. Luca Guerrini, **Martin Anokye**, Albert L. Sackitey, John Amoah-Mensah (2024). Dynamics of a Price Adjustment Model with Distributed Delay. *Mathematics*. https://doi.org/10.3390/math12203220

7. **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

8. Elvis Kobina Donkoh, Dominic Otoo, Shaibu Osman, Maxwell Baafi, **Martin Anokye**, Ernest Yeboah Boateng (2024). Mathematical modelling of transmission dynamics of Dengue Fever in the presence of infective immigrants. *Journal of AppliedMath*. https://doi.org/10.59400/jam.v2i3.160

9. **Martin Anokye**, Luca Guerrini, Albert L. Sackitey, Samuel E. Assabil, Henry Amankwah (2024). Stability Analysis of a Credit Risk Contagion Model with Distributed Delay. *Axioms*. https://doi.org/10.3390/axioms13070483

10. 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

11. **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

12. Benedict Barnes, **Martin Anokye**, Mohammed Muniru Iddrisu, Bismark Gawu, Emmanuel Afrifa (2023). The Analytic Solutions of the Fractional-Order Model for the Spatial Epidemiology of the COVID-19 Infection. *Advances in Mathematical Physics*. https://doi.org/10.1155/2023/5578900

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. **MARTIN ANOKYE** (2022). Modelling the Dynamics of Marital Interactions with Optimal Effort Plan. *Advances in Dynamical Systems and Applications*. https://www.researchgate.net/profile/Shaibu-Osman/publication/359453800_Modelling_the_Dynamics_of_Marital_Interactions_with_Optimal_Effort_Plan/links/623d979821077329f2d22b56/Modelling-the-Dynamics-of-Marital-Interactions-with-Optimal-Effort-Plan.pdf

16. Peter Romeo Nyarko, **Martin Anokye** (2020). Mathematical modeling and numerical simulation of a multiscale cancer invasion of host tissue. *AIMS Mathematics*. https://doi.org/10.3934/math.2020200

17. **Martin Anokye**, Henry Amankwah, Emmanuel Kwame Essel, Irene Kafui Amponsah (2019). Dynamics of Equilibrium Prices With Differential and Delay Differential Equations Using Characteristic Equation Techniques. *Journal of Mathematics Research*. https://doi.org/10.5539/jmr.v11n4p1

18. Aabeyir Boniface, **Anokye Martin** (2019). Time Series Modeling and Forecasting of Consumer Price Index in Ghana. *Journal of Advances in Mathematics and Computer Science*. https://doi.org/10.9734/jamcs/2019/v32i130134

19. **Irene K Amponash Martin Anokye**, Emmanuel Kwame Essel, Irene Kafui Amponsah (2018). THE DIFFERENTIAL AND DELAY DIFFERENTIAL APPROACH IN THE ANALYSIS OF STABLE STATE EQUILIBRIUM PRICES USING CHARACTERISTIC EQUATION TECHNIQUES. *International Journal of Management and Applied Science*. https://ir.ucc.edu.gh/items/04dab804-da65-4c21-ad09-d576af9eba39

20. Francis Boateng, John Amoah-Mensah, **Martin Anokye**, Lot Osei, Paul Dzebre (2016). Modeling of Tomato Prices in Ashanti Region, Ghana, Using Seasonal Autoregressive Integrated Moving Average Model. *British Journal of Mathematics & Computer Science*. https://doi.org/10.9734/bjmcs/2017/30535

21. **Martin Anokye**, FT Oduro (2015). Maize Price Stabilization in Ghana: An Application of Continuous-Time Delay Differential Model with Buffer Stock. *British Journal of Mathematics and Computer Science*. https://

www.researchgate.net/profile/Francis-Oduro/publication/273307585_Maize_Price_Stabilization_in_Ghana_An_Application_of_a_Continuous-Time_Delay_Differential_Equation_Model_with_Buffer_Stock/links/56278b2d08ae22b1fb13bd08/Maize-Price-Stabilization-in-Ghana-An-Application-of-a-Continuous-Time-Delay-Differential-Equation-Model-with-Buffer-Stock.pdf

22. **Martin Anokye**, Francis Oduro (2015). Maize Price Stabilization in Ghana: An Application of a Continuous-Time Delay Differential Equation Model with Buffer Stock. *British Journal of Mathematics & Computer Science*. https://doi.org/10.9734/bjmcs/2015/14892
23. **Martin Anokye** (2014). Dynamics of maize price in Ghana: linear versus nonlinear cobweb models. *Dynamics*. https://ir.ucc.edu.gh/server/api/core/bitstreams/5bb5eef9-5495-447f-a1e8-652ff51177fc/content
24. **Martin Anokye** (2014). Immunization coverage of pregnant women with tetanus toxoid vaccine in Dormaa East District-Brong Adaro region, Ghana. *Mathematical Theory and Modeling*. https://www.academia.edu/download/86866759/13365.pdf
25. **Martin Anokye**, Francis Oduro (2014). Price Dynamics of Maize in Ghana: An Application of Continuous – Time Delay Differential Equations. *British Journal of Mathematics & Computer Science*. https://doi.org/10.9734/bjmcs/2014/13484
26. **Martin Anokye**, FT Oduro (2013). Application of queuing theory to vehicular traffic at signalized intersection in Kumasi-Ashanti region, Ghana. *American International Journal of Contemporary Research*. https://ir.ucc.edu.gh/server/api/core/bitstreams/1e2a0e8e-ea83-4293-bdc0-f1b1b9d8f9d6/content
27. **M Anokye** (2013). Modeling and forecasting rainfall pattern in Ghana as a seasonal ARIMA process: The case of Ashanti region. *International Journal of Humanities and Social Science*. https://www.academia.edu/download/82009346/22.pdf
28. **M Anokye** (2013). The desire for last birth among Ghanaian women: The determinants. *Research on Humanities and Social Sciences*. https://www.academia.edu/download/101653592/9880.pdf
29. **Martin Anokye**, Francis Tabi Oduro (2012). Cobweb Model with Buffer Stock for the Stabilization of Tomato Prices in Ghana. *Journal of Management and Sustainability*. https://doi.org/10.5539/jms.v3n1p155

Conference papers 1

1. IK Vorsah Amponsah, D Addo-Mensah, **M Anokye** (2019). THE EFFECT OF PRACTICAL WORK AND MOTIVATION ON STUDENTS'DESIRE TO STUDY STEM SUBJECTS. *EDULEARN19 Proceedings*. https://library.iated.org/view/VORSAHAMPONSAH2019EFF