**Tor A. Kwembe, Ph.D.**

Title: Professor and Chair

**Biography**

**Education**

1. Ph.D., The University of Illinois at Chicago, Illinois, 1989, Applied Mathematics
2. MS, The University of Illinois at Urbana-Champaign, 1983, Mathematics
3. BSc (Hons), The University of Calabar, Calabar, Nigeria, 1980, Mathematics/Statistics
4. Post-Doctoral Research Associate, University of Illinois at Chicago, College of Engineering, 1989-1990

**Current Research Interests**

1. Applications of mathematics to Computational Data Enabled Science and Engineering (CDS&E) and quantitative exploration of data
2. Undergraduate research in the mathematical sciences
3. Integrating technology in teaching and learning mathematics
4. Classical analysis
5. Big Data Analytics with applications to Automated Machine Learning, Deep Learning, and Artificial Intelligence (AI)

**Disciplines**

Probability Theory, Statistics, Applied Mathematics, Artificial Intelligence, Computing in Mathematics, Natural Science, Engineering and Medicine

**Skills and expertise**

Dispersal Modeling. Statistical Modeling. Automated Machine Learning. Computational Data Enabled Science and Engineering. AI and Machine Learning. Mathematics and Statistical Methods for AI. Directing Ph.D. Dissertations in CDS&E and Theses in CDS&E and Mathematics.

**For Selected Published Research with collaborators and Students:**

<https://www.researchgate.net/profile/Tor-Kwembe/research>

<https://www.researchgate.net/profile/Tor-Kwembe>

<https://www.semanticscholar.org/author/T.-Kwembe/12213581>

<https://www.mathgenealogy.org/id.php?id=12386>

Location: Just Hall of Science: Room 225

**CERTIFICATIONS**

**HONORS**:

1. The Chief U. B. Ugot Prize in Mathematics/Statistics, University of Calabar, Nigeria, 1980.

2. Faculty Excellence Award: Chicago State University- 1993.

3. Outstanding Faculty Award: Engineering Studies, Chicago State University-1992.

4. Outstanding Contributions to the Developmental Program in Mathematics at Chicago State

University.

5. American Society of Cell Biology- Minority Travel Award, 1992.

6. Who’s Who Among America’s Teachers- Third Edition, 1994?

7. Who’s Who Among America’s Teachers- Fifth Edition, 1998?

8. 1996 HBCU FACULTY RESEARCH PARTICIPATION FELLOWSHIP.

9. Faculty Excellence Award: Chicago State University- 1996.

10. Faculty Excellence Award: Chicago State University – 1999.

11. Faculty Excellence Award: Chicago State University – 2001.

12. Marquis Who’s Who in America, 2002, 2003.

13. Marquis Who’s Who in the World, 2003.

14. Marquis Who’s Who in Science and Engineering, 2003-2004. 7th edition.

15. CTC/CSU Outstanding Professor Award, 2003

**PROFESSIONAL DEVELOPMENT**

1. Oak Ridge Institute for Science and education (ORISE); Participated in the Department of Energy

(DOE) defense Program-Manufacturing awareness: March 12-15, 1995.

2. Oak Ridge Institute for Science and education (ORISE) and Argonne National Laboratory, Faculty

Research Participation (FRP) program; Summer 1996.

3. University of Illinois at Urbana-Champaign- Illinois Inter-Institutional Faculty Summer Institute

on Learning technologies; May 19-23, 1997.

4. Harvard School of Public Health, Department of Biostatistics &amp; Health and Social Behavior,

Visiting Faculty at the Workshop on “Social Inequalities in Health: Race and ethnicity “Monday,

June 28, 1999.

5. Thomson Course Technology Training, Chicago Forum 2002, Oakbrook, Illinois, February 15,

2002

6. Society for Scholarly Publishing Seminar Series, The XML Revolution: What Scholarly Publishers

need to Know, Chicago, Illinois, and Tuesday, November 12, 2002.

7. Prentice Hall Information Technology Seminar – PHITS, Chicago, Illinois, April 11, 2003.

8. Faculty Learning Communities; New Developers Institute, Claremont Graduate University, June

21 – 23, 2006.

9. Computational thinking in the Mathematical Sciences – XSEDE Workshops, 2013

**SELECTED GRANTS AND PROJECT ACTIVITIES**

1. Chicago State University Faculty Innovation Grant, 1992/93

Projects: Student-Faculty Curriculum Activities ($5,000).

2. Chicago State University Faculty Innovation Grant, 1993/94

Project: Continuation of 1992/93 project ($5,000).

3. Dwight D. Eisenhower Mathematics and Science Education Program Grant, Federal FY 1993.

Project: Vocational High School Mathematics and Science Teacher Retraining ($67,000).

4. The National Science Foundation (NSF): Interdisciplinary Training of Undergraduate for

Biological and Mathematical Sciences with Emphasis on Marine and Coastal Sciences; 2005 –

2008 ($300,000).

5. Pearson Education, INC: MyMathLab Student Success – Increasing students pass rates and

enhancing the overall online learning experience using MyMathLab; 2006 – 2010 ($157,500).

6. IHL NCAT-Mississippi Course Redesign Initiative Grant- JSU Intermediate and College Algebra

Course Redesign; 2008 – 2010 ($100,000).

7. Mini-grant: BYU Center for Undergraduate Research in Mathematics (CURM)-Guide five

undergraduate mathematics majors to complete a research project for 2010-2011 AY ($25,000)

8. Co-PI-Federal Title III, Part B – Strengthening, Historically Black Colleges and Universities (HBCU)

Program: Establishing the Center for Undergraduate Research; 2010-2015 ($1,985,000)

9. The National Science Foundation (NSF): Progress in Integrating Technology in the Teaching and

Learning of Mathematics at Historical Black Colleges and Universities (HBCU); 2012-2016

($200,000)

10. The National Science Foundation (NSF): EXTREEMS-QED: Laboratory for Interdisciplinary

Statistical Analysis and Mathematics Learning Through Quantitative Exploration of Data (LISA-

QED); 2013-2016 ($600,000)

11. Pittsburg Supercomputing Center National Institute of Health (NIH) Minority Access to Research

Careers (MARC)-Subcontract Award; 2014-2016 ($54,074)

12. The National Science Foundation (NSF): Supplemental Award to EXTREEMS-QED: Laboratory for

Interdisciplinary Statistical Analysis and Mathematics Learning Through Quantitative Exploration

of Data (LISA-QED); 2013-2016 ($119,992). PI: Tor A. Kwembe; Co-PI: Carmen Wright, Xing Yang,

Remata Reddy, and Zhenbu Zhang

13. Lin Li (PI), Co-PIs: - Jiangjun Yin, Tor A. Kwembe, and Farshad Amini: Investigating the effect of

active flipped learning in STEM education. Agency: The National Science Foundation (NSF):

Award 1623031 was made on 09/14/16 for $ 350,000.00 with an effective date of 09/15/16.

14. Tor A. Kwembe (PI), Co-PIs- Jun Liu and Zhenbu Zhang: NSF-CBMS Conference: Computational

Methods in Optimal Control, Amount: $34,994. 1/01/2018-01/01/2019. Agency: The National

Science Foundation (NSF).

15. NSF CC\* Networking Infrastructure: Jackson State University (JSU)-Research Network

($500,000). Funding Agency: NSF: - PI: Deborah Dent; Co-PI: Tor A. Kwembe, Natarajan

Meghanathan, and Hung-Chung Huang. 07/01/2018 – 06/30/2020.

16. Novel Big Data and Artificial Intelligence Analytics Methods for Tracking and Monitoring

Maritime Traffics. Amount: $82,500. 11/01/2021 – 10/31/2022. Funding Agency: Maritime

Transportation Research &amp; Education (MarTREC). USDOT Tier 1 University Transportation

Center. 2021-2022.

**SELECTED PUBLICATIONS**

1. Kwembe, Tor A. (1989). “Nonlinear Diffusion Problems of Mathematical Biology”, Ph.D. Dissertation,

University of Illinois at Chicago, U. M. I, Ann Arbor, 1989.

2. C. P. Calderon and T. A. Kwembe. (1990). “On the Classical Trapping Problem”, Journal of

Mathematical Biosciences 102: 183-190.

3. C. P. Calderon and T. A. Kwembe. (1991). “Modeling Tumor Growth”, Journal of Mathematical

Biosciences 103: 97-114.

4. Kwembe, Tor A. (1990). “Existence and Uniqueness of Solutions for Nonlinear Diffusion Equations of

Population Biology with Initial Data in LP-Spaces”, Rev. Union Matematica Argentina, Vol. 36: 195-207.

5. C. P. Calderon and T. A. Kwembe. (1991). “Dispersal Models”, Rev. Union Matematica Argentina, Vol.

37: 212-229.

6. C. P. Calderon and T. A. Kwembe. (1991). “Variational Principles in Biology”, Rev. Union Matematica

Argentina, Vol. 37: 16-23.

7. C. P. Calderon and T. A. Kwembe. (1992). “Diverse Ideas in Modeling Tumor Growth”, Acta Cientifica

Venezolana, Vol. 43; No. 2: 64-75.

8. Kwembe, Tor A. (1999). “The Initial Boundary Value Problems for the Semilinear Diffusion Equations

with Data in LP-Spaces”, Applicable Analysis-An International Journal, Vol. 72(1-2): 205-228.

9. Kwembe, Tor A. (2001). “Existence and Uniqueness of Global Solutions of the Parabolic Equation for

the Bi-Harmonic Type”, Proceedings of the 3rd World Congress of Nonlinear Analysts: Journal of

Nonlinear Analysis: Series A Theory and Methods. Vol. 42/2: 1321-1332.

10. Kwembe, Tor A. (2001). “The Initial Value Second Order Nonlinear Parabolic Equation with data in

space”- Nonlinear Studies, Vol. 8, No. 2, 249 – 259.

11. Kwembe, Tor A. (2002). “A Remark on the Existence and Uniqueness of Solutions of a Semilinear

Parabolic Equation”, Journal of Nonlinear Analysis: Theory, Methods and Application, Vol. 50/3: 425-

432.

12. Kwembe, Tor A. (2003). “The inequality properties of the solution of a nonlinear parabolic equation

in an oscillatory media” – Archives of Inequalities and Applications, Vol. 1(2): 221-239.

13. Kwembe, Tor A. (2004). “On the Nonlinear Bi-harmonic Parabolic Equation with data in L p - spaces”,

Proceedings of Dynamic Systems and Application, Vol. 4, 213-219.

14. Kwembe, Tor. A., Jan-Jo Chen, and Azungwe I. Kwembe. (2003). “Cooperative competing

technologies enhancing the publishing industry: The XML Revolution”, WSEAS Transactions on

Computers, Issue 4, Vol. 2, 1149 – 1158.

15. Kwembe, Tor A. (2004). “Mathematical Algorithms for Optimizing Phosphorus Level in Chicken Diet”,

WSEAS Transactions on Business and Economics, Issue 1, Vol. 1, 38 – 42.

16. Mastorakis, N., Cala, L., D’Attelis, C., Kaminski, J., Kwembe, T., Sieniutycz, S., and Venturino, E. (2004)

(Editors). “WSEAS Transactions on Biology and Biomedicine” doi: 10.37394/23208, Corpus ID: 92162570.

Print ISSN: 1109-9518, E-ISSN: 2224-2902. (Vol. 1, issues 1-4).

17. Kwembe, Tor A. (2004). “The Hopf-Leray solutions of the initial value nonlinear parabolic equation”,

Nonlinear Studies, Vol. 11, No. 4, 691- 699.

18. Kwembe, Tor A. (2005). “On the vanishing and stability of the gradient of weak solutions of certain

quasilinear parabolic equations”, Journal of Nonlinear Analysis, Vol. 63/5-7, e1333 – e1339.

19. Kwembe, Tor A. (2005). “Parabolic Fractional Singular Integral Solutions of Semilinear Diffusion

Equations”, Global Journal of Pure and Applied Mathematics, Vol. 1 No. 1, 41-54.

20. Kwembe, Tor A. and Shatondria N. Jones. (2006). “A Mathematical Analysis of Cylindrical Shaped

Aneurysms”, BIOMAT 2005, Proceedings of the International Symposium on Mathematical and

Computational Biology, Rio de Janeiro, Brazil, World Scientific Publishers, 35 – 48.

21. Kwembe, Tor A. (2007). “Mathematical and Computational Modeling of Physiological Disorders: A

Case Study of the IUPS Human Physiome Project and Aneurysm Models”, BIOMAT 2006, Proceedings of

the International Symposium on Mathematical and Computational Biology, Manaus, Brazil, November

27-30, 2006, World Scientific Publishers.

22. Kwembe, Tor A. and Paul Musial. (2010). “The Initial Value Semilinear Diffusion Equations on Orlicz

Spaces”, IJPAM, Vol. 61, No. 3, 253-267.

23. Kwembe, Tor A. and Zhenbu Zhang. (2010). “A semilinear equation with generalized Wentzell

boundary condition”, Nonlinear Analysis, Series A: Theory, Methods and Applications, Vol. 73, 3162 –

3170.

24. Kwembe, Tor A. (2010). “A closed form fundamental solution of the parabolic equation of the bi-

harmonic type”, IJPAM, 64(3), 405-410.

25. Kwembe, Tor A. and Zhenbu Zhang. (2012). “A semilinear parabolic system with generalized

Wentzell boundary condition”, Nonlinear Analysis Series A: Theory, Methods &amp; Applications, Nonlinear

Analysis 75 (2012) 3078 – 3091.

26. Kwembe, Tor A. and Zhenbu Zhang. (2012). “A semilinear parabolic system with generalized

Wentzell boundary condition”, Nonlinear Analysis Series (2011), doi:10.1016/j.na.2011.12.005

27. Kwembe, Tor A. and Ashley M. Sanders. (2014). “Modeling non-traumatic aneurysm evolution,

growth and rupture”, Journal of Basic &amp; Applied Sciences, Vol.10 (2014) 393-413.

http://dx.doi.org/10.6000/1927-5129.2014.10.52

28. Kwembe, Tor A. (2014). “Computational Analysis for a Mathematical Model of the Mechanics of

Aneurysm Development and Rupture”, A.M. Stokolos et al. (eds.), Special Functions, Partial Differential

Equations, and Harmonic Analysis, Springer Proceedings in Mathematics &amp; Statistics Vol.108 115-134

DOI 10.1007/978-3-319-10545-1\_\_11.

29. Kwembe, Tor A., Kathryn Leonard, and Angel Pineda. (2014). “Academic Year Undergraduate

Research: A CURM Model”, INVOLVE, a journal of mathematics, Vol. 7:3, 383-394.

DX.DOI.org/10.2140/involve 2014.7.383.

30. Zhang, Zhenbu and Kwembe, Tor A. (2016). “Qualitative analysis of a mathematical model of malaria

transmission and its variation”, Electronic Journal of Differential Equations (EJDE): Conference 23, 195-

210.

31. Zhenbu Zhang, Tor A. Kwembe, Remata S. Reddy, Jerryl Roberts, Brittany Keys, and Tsion Andine.

(2016). “An Improved Method to Estimate Ice Line for Zonal Energy Balance Climate Models”, Electronic

Journal of Differential Equations (EJDE): Conference 23 (2016), 211-219.

32. Zhang, Z., Kwembe, T.A., and Yang, X. (2016). “The effects of classical trapping on the control of

malaria transmission”, Journal of Basic and Applied Sciences, Vol. 12, 434-440.

33. Guojing Hu, Feng Wang, Weike Lu, Tor A. Kwembe, and Robert W. Whalin. (2020). A Cooperative

Bypassing Algorithm for Connected and Autonomous Vehicles in Mixed Traffic. IET Intelligent Transport

Systems, 11pp. DOI: 10.1049/iet-its.2019.0707.

34. Guojing Hu, Feng Wang, Robert W. Whalin, and Tor A. Kwembe. (2020). Analytical Approximation for

Macroscopic Fundamental Diagram of Urban Corridor with Mixed Human and Connected &amp;

Autonomous Traffic. IET Intell Transp Syst. 2021; 15:261–272. https://doi.org/10.1049/itr2.12020.

35. Cheronika Manyfield-Donald, Tor A. Kwembe, and Jing-Ru Cheng. (2021). &quot;Clustering Automatic

Identification System (AIS) Data Using Density-based Spatial Clustering of Large and Complex Datasets

on Pairwise Distance,&quot; in Springer Nature - Research Book Series: Transactions on Computational

Science &amp; Computational Intelligence., USA, The 17th International Conference on Data Science

(ICDATA&#39;21), 2021, pp. 26-29.

36. C. Manyfield-Donald, T. A. Kwembe and J. -R. C. Cheng, (2022). &quot;A Modified Clustering Using

Representatives to Enhance and Optimize Tracking and Monitoring of Maritime Traffic in Real-time

Using Automatic Identification System Data,&quot; 2021 International Conference on Computational Science

and Computational Intelligence (CSCI), 2021, pp. 285-289, doi: 10.1109/CSCI54926.2021.00119.

37. O. Osho, S. Hong and T. A. Kwembe, (2022). &quot;Network Intrusion Detection System Using Principal

Component Analysis Algorithm and Decision Tree Classifier,&quot; 2021 International Conference on

Computational Science and Computational Intelligence (CSCI), 2021, pp. 273-279, doi:

10.1109/CSCI54926.2021.00117.

38. H. Cotton and T. A. Kwembe, (2022). &quot;Using Data Analytics to Forecast Violent Crime,&quot; 2021

International Conference on Computational Science and Computational Intelligence (CSCI), 2021, pp.

301-304, doi:10.1109/CSCI54926.2021.00122.

39. Aljawfi, O.M., &amp; Kwembe, T.A. (2022). Applying Machine Learning Algorithms to Identify the

Associations Between Educational Background Factors and Problem-Solving in Technology-Rich

Environment: An Investigation of Adult&#39;s Proficiency Level in PIAAC. Proceedings of the World Multi-

Conference on Systemics, Cybernetics and Informatics. DOI:10.54808/wmsci2022.03.19.

40. Yang, Y.; Yan, Y.; Chen, C.; Wu, Q.; Kwembe, T.A.; Wu, R. (2022). Modal Analysis on MVG Controlled

Supersonic Flow at Different Mach Numbers. Processes 2022, 10, 1456.

https://doi.org/10.3390/pr10081456.

41. Yan, Y.; Baines, D.L.; Yang, Y.; Chen, C.; Kwembe, T.A. (2022). Study on the Sensitivity of the

Streamwise Location of MVG on SWBLI in MVG-Based Supersonic Flow Control. Fluids 2022, 7, 285.

https://doi.org/10.3390/fluids709028.

42. Smith, Morgan and Kwembe, Tor A. (2023). Application of Machine Learning Classifiers Interfacing

Google Colab and SKlearn to Intrusion Detection CSE-CIC IDS2017 Dataset. Proceedings of CSCE 2023

(IEEE CPS). 979-8-3503-2759-5/23/$31.00 ©2023 IEEE DOI 10.1109/CSCE60160.2023.00311.

43. Guojing Hu, Robert W. Whalin, Tor A. Kwembe, and Weike Lu (2023). Short-term Traffic Flow

Prediction Based on Secondary Hybrid Decomposition and Deep Echo State Networks, Physica A:

Statistical Mechanics and its Applications, 129313, ISSN 0378-4371,

https://doi.org/10.1016/j.physa.2023.129313.

https://www.sciencedirect.com/science/article/pii/S0378437123008683

44. Ikome, O.M., Melapu, V.K., Kwembe, T.A., &amp; Watson, E. (2023). A Data Science Approach to Precision

Medicine: Allostatic Load as a Predictor of Cardiovascular Disease. 2023 7th International Symposium on

Multidisciplinary Studies and Innovative Technologies (ISMSIT), 1-8. doi:

10.1109/ISMSIT58785.2023.10304888.

45. Whalin, Robert W, Kwembe, Tor A, Jackson, Eric S, Nelson, Lancelot, and Tchakoua, Ingrid K (2024).

Novel Big Data and Artificial Intelligence Analytics Methods for Tracking and Monitoring Maritime

Traffics. https://martrec.uark.edu/research/completedprojects/jsu\_novel\_big\_data\_final\_acc.pdf.

<https://trid.trb.org/View/2350684>

**SELECTED CONFERENCE AND INVITED PRESENTATIONS**

1. Transforming Post-Secondary Education in Mathematics (TPSEMath). South Regional Meeting

on Upper-Division Mathematics Pathways, Panel on Approaches to Program Development.

Morehouse College, Atlanta, GA. June 10-11, 2019.

2. Advanced Cyber Infrastructure @ Minority Serving Institutions (SPACI @ MSIs).

http://spaci.scsu.edu/speakers/ , GA Tech Hotel and Conference Center, Atlanta, GA. June 6-8,

2018.

3. “EXTREEMS-QED: Laboratory for interdisciplinary statistical analysis and mathematics learning

through exploration of data”, with Remata Reddy, Carmen M. Wright, Xing Yang and Zhenbu

Zhang; AMS-MAA Joint Mathematics Meeting, San Antonio, TX, January 10-13, 2015

4. Modeling Aneurysm Evolution, Growth and Rupture, A conference in honor of Professor Calixto

P. Calderon-Special Functions, Partial Differential Equations and Harmonic Analysis, Department

of Mathematics and Actuarial Sciences, Roosevelt University, Chicago, Illinois, November 16-18,

2012

5. Academic Year Undergraduate Research Groups: CURM Model, Mathematical Association of

America-MAA, Trends in Undergraduate Research in the Mathematical Sciences Conference

(TURMS), TURMS Annual Conference, The Westin O’Hare, Rosemont, Illinois, October 26-28,

2012

6. 2012 North Carolina Central University (NCCU) Summer Faculty Institute on Course Redesign

and Pedagogy-Workshop Convener on Intermediate and College Algebra, and General Biology

for Non-Biology majors course Redesign, Durham, North Carolina, June 18-28, 2012

7. “The National Center for Academic Transformation Disciplinary Roundtable Discussion on

Course Redesign: Developmental Mathematics at Jackson State University-Intermediate and

College algebra”, Redesign Alliance Third Annual Conference, Orlando, Florida, March 22-24,

2009

8. “Interdisciplinary Training of Undergraduates in Biological and Mathematical Sciences”, with

Hyun J Cho and Zhenbu Zhang MAA-SE 88th Annual Meeting, Belmont University, Nashville, TN,

March 13-14, 2009

9. “Building Faculty Learning Communities through Course Redesign in STEM-The Mississippi

Institute of Higher Learning (IHL) Initiative: The case of Intermediate and College Algebra Course

Redesign at Jackson State University (JSU)”, Howard University, Washington, DC., January 30-31,

2009

10. “Interdisciplinary Training of Undergraduates in Biological and Mathematical Sciences with

Emphasis on Fisheries Stock Assessment”, with Hyun J Cho; AMS-MAA Joint Meeting, San Diego,

CA, January 7, 2008

11. “Creating a Faculty Learning Community in the Mathematical Sciences”, Division of Science and

Mathematics, Rust College, February 22, 2008, Holly Springs, Mississippi.

12. “Responsible Conduct of Research Lecture Series: Ethical Policy in Scientific Research”, Jackson

State University, February 7, 2008, Jackson, Mississippi.

13. “Learning Communities for STEM Academic Achievement: A Promising Pedagogical Reform for

Improving STEM Teaching and Learning at HBCU” (with Orlando L. Taylor, Kimberly E. Freeman,

Jill McGowan, Arthur Bacon, Marion Carroll and Sharon Winfield), the 94th Annual Meeting of

the AAC&U, January 23-24, 2008, Washington, DC.

14. “Interdisciplinary Training of Undergraduates in biological and Mathematical Sciences with

Emphasis on Marine/Coastal Sciences” (with Hyung Cho and Zhenbu Zhang), Joint Mathematical

Meetings, January 5 – 8, 2007, New Orleans.

15. “Mathematical and Computational Modeling of Physiological Disorders: A Case Study of the

IUPS Human Physiome Project and Aneurysm Models”, BIOMAT 2006, 6th International

Symposium on Mathematical and Computational Biology, Manaus, Brazil, November 27-30,

2006.

16. “On the Nonlinear Bi-harmonic Parabolic Equation with data in L p spaces”; Fourth International

Conference on Dynamic Systems and Applications, Morehouse College, Atlanta, Georgia, May 21

– 24, 2003.

17. “Potential Operators Method of Integral Solutions of Initial Value Parabolic Equations”; Ninth

Conference for African American Researchers in the Mathematical Sciences, Purdue University,

June 24 – 27, 2003.

18. “On the stability and vanishing of the spatial gradient of certain quasilinear parabolic

equations.” The Fourth World Congress of Nonlinear Analysts, June 30-July 7, 2004, Orlando,

Florida.

19. “Learning Community: Multiple Building Strategies”, STEMES 2006, Howard University.

Washington DC.

20. “Institutional Review Board and Scientific Misconduct in Mathematics”, 2007 AGEM Winter

Scholar Symposium, The University of Mississippi, Oxford, January 25 – 27, 2007.

21. “A Mathematical Analysis of Cylindrical Shaped Aneurysms”, with Shatondria N. Jones, BIOMAT

2005, The 5 th International Symposium on Mathematical and Computational Biology, Rio de

Janeiro, Brazil, 2005.

22. “Mathematical and Computational Modeling of Physiological Disorders: A Case Study of the

IUPS Human Physiome Project and Aneurysm Models”, BIOMAT 2006, 6th International

Symposium on Mathematical and Computational Biology, Manaus, Brazil, November 27-30,

2006.

23. “Mathematical Model of Abnormal Granulocytopoiesis”-Poster presentation at the 32nd annual

meeting of the American Society for Cell Biology, Denver, Colorado, Nov. 15-19 (1992).

24. “Vocational High School Mathematics and Science Teacher retraining”;-Poster presentation at the

Illinois State Science and mathematics Fair, Springfield Illinois, March 1993.

25. “Democracy in Nigeria”, with S. Enyia, E. Ewa, J. Nwaogwugwu, and D. Umeh, The 21st Annual Third

World Conference-Peace, Democracy &amp; Development into the 21st Century, Chicago, March 22-25

(1995).

26. “Democratization and Transformation in Nigeria: The State of the Transition”-Discussant, Transition

Monitoring Group Conference, George Washington University, Colonial Comings, 800 21st Street NW

Washington, D. C., August 15-16 (1997).

27. “Existence and Uniqueness of Global Solutions of the Parabolic Equation of the Bi-Harmonic Type”;

third. WCNA July 19 – 26, 2000, Catania, Italy.

28. “The Role of the University of Catania in the development and economic advancement of the Sicilian

city of Catania”; Presented at the September 13, 2000, Chicago State University College of Arts and

Science Forum.

29. “Variational principles and time-optimal control of biological systems: A theoretical perspective on

the inhibition mechanisms in the dynamics of tumor necrosis and leukemia”; International

Conference on Dynamics of Continuous, Discrete and Impulsive Systems, London, Canada, July

27-31, 2001.

30. “A selection of an elementary algorithm for optimization of phosphorus level in chicken diet”; Fifth

SIAM conference on control and its applications”, San Diego, California, July 11-14, 2001.