CURRICULUM VITAE - FEREBEE TUNNO

(last updated May 2, 2025)

Personal Data

Arkansas State University Department of Mathematics and Statistics P.O. Box 70 State University, AR. 72467

(870) 680-8135 ftunno@astate.edu (see profile on Google Scholar)

Education

Ph.D., Clemson University, May 2009, Statistics M.S., University of Memphis, August 1999, Statistics B.S., Rhodes College, May 1996, Mathematics

Professional Experience

Arkansas State University

Assistant Professor, 2009-2015

Associate Professor, 2015-present

Applied Statistics I & II

Linear Algebra

Calculus I, II, & III

Probability and Statistics I & II

Stochastic Processes

Probability (grad)

Statistical Methods Using SAS (grad)

Statistical Methods Using R (grad)

Time Series Analysis (grad)

Data Analysis I & II (grad)

Statistical Analysis I & II (grad)

Clemson University, Graduate Teaching Assistant, 2005-09

Calculus I & II

Business Calculus

Statistics for Engineers

Tri-County Technical College, Part-time Instructor, 2005-09

Advanced Statistics

Differential Equations

Calculus II

Professional Memberships

American Statistical Association (ASA) Mathematical Association of America (MAA)

Contributed Talks

- "What Are Facts? How Math and Science Can Support Critical Thinking and Evidence-Based Decision-Making" with Martin Huss. General audience talk, Arkansas State University, February 2019.
- "Signal Discrimination Without Denoising." Joint Statistical Meetings, Boston, MA. August 2014.
- "Bounded Area Tests for Comparing the Dynamics Between ARMA Processes." 36th Conference on Stochastic Processes and Their Applications, University of Colorado Boulder, July 2013.
- "Using Arc Length to Cluster Stocks According to Risk." Joint Statistical Meetings, San Diego, CA., August 2012.
- "New Confidence Intervals for the AR(1) Parameter." International Conference on Mathematics and Statistics, University of Memphis, May 2012.
- "More on Arc Length Tests for Equivalent Autocovariances." Joint Statistical Meetings, Vancouver, B.C., August 2010.
- "Arc Length Tests for Equality of Autocovariances." Joint Statistical Meetings, Denver, CO., August 2008.

Departmental Talks

- "Understanding the Cauchy-Schwarz Inequality." February 2025.
- "Philosophy and Asymptotics: How the Monty Hall Problem May Reveal a Symbiotic Relationship Between Free Will and Determinism." October 2025
- "A Crash Course In Lebesgue Measure." March 2024.
- "The Gamma Function." October 2023.
- "Arc Length Tests For Comparing The Dynamics Between GARCH Processes" with Javier Muñoz Ruiz. March 2023.
- "Evaluating the Guassian Integral." November 2022.
- "Introduction to GARCH Processes." December 2021.
- "Bounded Area as a Measure of Volatility for Financial Time Series" with Latia Carraway. October 2020.
- "Bounded Area Tests for Comparing the Dynamics Between ARMA Processes." February 2013.

Invited Talks

- "Introduction To GARCH Processes." Keynote speaker, Mathematics and Computer Science Undergraduate Symposium, Christian Brothers University, April 2022.
- "Signal Discrimination Without Denoising." Department of Mathematics and Statistics, Mississippi State University, March 2015.

Student Supervision

Ashton Erwin, Masters Thesis Advisor, Arkansas State University, May 2012 - May 2014.

Miranda Perry, Honors Thesis Advisor, Arkansas State University, February 2016 - December 2017.

Javier Ruiz, Research Collaborator, Arkansas State University, January 2022 - December 2023.

Orithea Regn, Masters Thesis Advisor, Arkansas State University, April 2025 - present.

Grants and Fellowships

ADHE SURF Grant, Principal Investigator, January 1, 2017 - December 31, 2017.

ASU College of Sciences and Mathematics, Provost Faculty Development Award, May 16, 2015 -June 30, 2015.

NSF EPSCoR SURF Grant, Principal Investigator, January 15, 2011 - March 31, 2011.

NSF REU Grant, Statistical Consultant, Fall 2007.

NSF K-12 Fellowship, Teaching Fellow, Fall 2004 - Spring 2005.

Publications

Tunno, F. and Ruiz, J. (2025) Arc Length Tests for Comparing the Dynamics Between GARCH Processes. *Involve*, 18(3): 459-471.

Tunno, F. and Carraway, L. (2022) Bounded Area as a Measure of Volatility for Financial Time Series. Communications in Statistics: Case Studies, Data Analysis, and Applications, 8(2): 251-263.

Tunno, F. and Perry, M. (2022) Signal Discrimination Without Denoising. Communications in Statistics: Simulation and Computation, 51(2): 626-646

Wickramarachchi, T. and Tunno, F. (2015) Using Arc Length To Cluster Financial Time Series According To Risk. Communications in Statistics: Case Studies, Data Analysis, and Applications, 1: 217-225.

Tunno, F. (2015) Bounded Area Tests for Comparing the Dynamics Between ARMA Processes. Communications in Statistics: Theory and Methods, 44: 3921-3941.

Tunno, F. and Erwin, A. (2013) New Confidence Intervals for the AR(1) Parameter. *Involve*, 6: 53-63.

Tunno, F. Gallagher, C., and Lund, R. (2012) Arc Length Tests for Equivalent Autocovariances. *Journal of Statistical Computation and Simulation*, 82: 1799-1812.

Gallagher, C. and Tunno, F. (2008) A Small Sample Confidence Interval for Autoregressive Parameters. *The Journal of Statistical Planning and Inference*, 138: 3858-3868.

Papers In Progress

Tunno, F. and Regn, O. New Estimation Methods for the MA(1) Model.

Book Reviews

Tunno, F. (2015) Review of *Probability Theory in Finance: A Mathematical Guide to the Black-Scholes Formula* (2nd ed.) by Sean Dineen. *The American Mathematical Monthly.* 122: 809-812.

Textbooks

Tunno, F. Introduction to Matrices. (Self-published on Amazon.)

Tunno, F. Introduction to Advanced Probability. (In progress.)

Journal Refereeing

Journal of Time Series Analysis

Other Service

Served as external reviewer for the M.S. Statistics program at the University of Houston at Clear Lake in March 2018.

References

Dr. Amanda Lambertus, Department Chair (Arkansas State University) alambertus@astate.edu, (870) 680-8136

Dr. Debra Ingram, Department Chair (Eastern Michigan University) dingra12@emich.edu, (734) 487-1444

Dr. Colin Gallagher, Professor (Clemson University) cgallag@clemson.edu, (864) 656-6187

Dr. Robert Lund, Department Chair (UC Santa Cruz) rolund@ucsc.edu, (831) 459-5158