# Thomas J. Fisher

Curriculum Vitæ

September 17, 2019

May 2006

August 2013 to June 2017

### **Contact Information**

**Office Phone:** (513) 529-2176 **Address:** 

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Department of Statistics Webpage:

100 Bishop Circle, 311 Upham http://www.users.miamioh.edu/fishert4/ Oxford, OH 45056-1800

Citizenship: United States

**Education** 

Ph.D. in Mathematical Sciences, Clemson University

December 2009

Dissertation: On the Testing and Estimation of High-Dimensional Covariance Matrices

Principal Advisor: Xiaoqian Sun (University of Missouri-Columbia)

M.S. in Mathematical Sciences, Clemson University

MS Project: Simulation Study for Single-Index Models Principal Advisor: K.B. Kulasekera (University of Nebraska-Lincoln)

B.S. in Computer Science, University of Maryland Baltimore County December 2003

Senior Project: Simulating the Pick-up Stones Game: A Dynamic Approach

A.S. in Computer Science, Anne Arundel Community College May 2001

**Employment** 

**Miami University** 

Oxford, OH 45056 **Department of Statistics Associate Professor** July 2017 to Present

**Assistant Professor** 

**University of Missouri-Kansas City** 

Kansas City, MO 64110 Department of Mathematics and Statistics

Assistant Professor August 2010 to August 2013

**Clemson University** 

Clemson, SC 29631 Department of Mathematical Sciences

Visiting Assistant Professor January 2010 to May 2010 **Graduate Assistant** August 2004 to December 2009

COACT, Inc.

Columbia, MD 21046

CMVP Lab Manager, COACT, Inc. December 2003 to August 2004

November 2001 to December 2003 Security Technician, COACT, Inc.

# **Scholarship**

## **Reviewed Published/Accepted Articles**

- 19. **Fisher, T.J.** and Robbins, Michael W., "A Cheap Trick to Improve the Power of a Conservative Hypothesis Test," *The American Statistician*, 73 (3) 232–242, July 2019. (10.1080/00031305.2017.1395364)
- 18. Ortiz, Shelby N., Forrest, Lauren N., **Fisher, T.J.**, Hughes, Michael S., and Smith, April R., "Changes in Internet Suicide Search Volumes Following Celebrity Suicides", *Cyberpsychology, Behavior, and Social Networking*, 22 (6), April 2019. (10.1089/cyber.2018.0488)
- 17. Lazar, Jeffrey A., Spahr, Rachel, Grudzinski, Bartosz P., and **Fisher, T.J.**, "Land Cover Impacts on Storm Flow Suspended Solid and Nutrient Concentrations in Southwest Ohio Streams,", *Water Environment Research*, 91 (6) 510–522, January 2019. (10.1002/wer.1054)
- 16. Philips, Cody, Garrett, Robert, Tatro, A.J. and **Fisher, T.J.**, "Crash-Safety Ratings and the True Assessment of Injuries by Vehicle" invited submission to *Computational Statistics*, accepted contingent on minor revisions in August 2018.
- 15. Garrett, Robert C., Nar, Austin, **Fisher, T.J.** and Maurer, Karsten T., "ggvoronoi: Voronoi Diagrams and Heatmaps with ggplot2", Journal of Open Source Software, 3 (32), 1096, December 2018. (10.21105/joss.01096)
- 14. Renwick, William, Vanni, Michael, **Fisher, T.J.**, Morris, Emily, "Stream nitrogen, phosphorus and sediment concentrations show contrasting long-term trends associated with agricultural change", *Journal of Environmental Quality*, 47 (6) 1513-1521, September 2018. (10.2134/jeq2018.04.0162)
- 13. Pilla, Rachel, Williamson, Craig, Zhang, Jing, Smyth, Robyn, Lenters, John, Brentrup, Jennifer, Knoll, Lesley and **Fisher, T.J.**, "Browning-related decreases in water transparency lead to long-term increases in surface water temperature and thermal stratification in two small lakes", *Journal of Geophysical Research Biogeosciences*, 123 (5) 1651-1665, April 2018. (10.1029/2017JG004321)
- 12. Knoll, Lesley B., Williamson, Craig E., Warner, Theresa M., Pilla, Rachel M., Leach, Taylor H., Brentrup, Jennifer A., and **Fisher, T.J.**, "Browning-related oxygen depletion in an oligotrophic lake", *Inland Waters*, 8 (3) 255-263, March 2018. (10.1080/20442041.2018.1452355)
- 11. **Fisher, T.J.** and Robbins, Michael W., "An improved measure for lack of fit in time series models," *Statistica Sinica*, 28, 1285-1305, July 2018. (doi:10.5705/ss.202016.0286)
- 10. **Fisher, T.J.** and Bailer, A. John, "Who, What, When and How: Changing the Undergraduate Statistics Curriculum; A Discussion of 'Mere Renovation is Too Little Too Late' by George Cobb. *The American Statistician*, 69 (4), November 2015. (doi:10.1080/00031305.2015.1093029)
- 9. Robbins, Michael W. and **Fisher, T.J.**, "Cross-Correlation Matrices for Tests of Independence and Causality between Two Multivariate Time Series," *Journal of Business & Economic Statistics*, 33 (4), 459–473, October 2015. (doi:10.1080/07350015.2014.962699)
- 8. Gallagher, Colin M., **Fisher, T.J.** and Shen, Jie, "A Cauchy Estimator Test for Autocorrelation," *Journal of Statistical Computation and Simulation*, 85 (6), 1264–1276, April 2015. (doi:10.1080/00949655.2013.874424)
- 7. Gallagher, Colin M. and **Fisher, T.J.**, "On Weighted Portmanteau Tests for Times Series Goodness-of-fit," *Journal of Time Series Analysis*, 36 (1), 67–83, January 2015. (doi:10.1111/jtsa.12093)
- 6. Cui, Yunwei, **Fisher, T.J.** and Wu, Rongning, "Diagnostic Tests for Non-causal Time Series with Infinite Variance," *Journal of Statistical Planning and Inference* 147, 117-131, April 2014. (doi:10.1016/j.jspi.2013.10.010)
- 5. Fisher, T.J. and Gallagher, Colin M., "New Weighted Portmanteau Statistics for Time Series Goodness-

- of-Fit Testing," *Journal of the American Statistical Association* 107 (498), 777–787, June 2012. (doi:10.1080/01621459.2012.688465)
- 4. **Fisher, T.J.**, "On Testing for an Identity Covariance Matrix when the Dimensionality Equals or Exceeds the Sample Size," *Journal of Statistical Planning and Inference* 142 (1), 312–326, January 2012. (doi:10.1016/j.jspi.2011.07.019)
- 3. Piccirillo, Sarah, Wang, Hsiao-Lin, **Fisher, T.J.** and Honigberg, Saul M., "GAL1-SceI directed site-specific genomic (gsSSG) mutagenesis: a method for precisely targeting point mutations in S. cerevisiae," *BMC Biotechnology* 11:120, 5 December 2011. (doi:10.1186/1472-6750-11-120)
- 2. **Fisher, T.J.** and Sun, Xiaoqian, "Improved Stein-Type Shrinkage Estimators for the High-dimensional Multivariate Normal Covariance Matrix," *Computational Statistics & Data Analysis* 55 (5), 1909–1918, May 2011. (doi:10.1016/j.csda.2010.12.006)
- 1. **Fisher, T.J.**, Sun, Xiaoqian, and Gallagher, Colin M., "A New Test for Sphericity of the Covariance Matrix for High Dimensional Data," *Journal of Multivariate Analysis* 101 (10), 2554–2570, November 2010. (doi:10.1016/j.jmva.2010.07.004)

### **Reviews & Discussions**

1. **Fisher, T.J.**, A Review of: "Practical Multivariate Analysis, Fifth Edition, by A. Afifi, S. May, and V. A. Clark," *Journal of Biopharmaceutical Statistics* 22 (6), 1280–1283, October 2012. (doi:10.1080/10543406.2012.713289)

### **Technical Reports and Others**

- 4. Gallagher, Colin M. and **Fisher, T. J.**, "A comparison of Various Weighted Portmanteau Tests for Time Series Goodness-of-fit," *Clemson University Technical Report*, 2013. (http://www.clemson.edu/ces/math/technical\_reports/gallagher.TR2013.pdf)
- 3. **Fisher, T. J.** and Gallagher, Colin M. "WeightedPortTest: Weighted Portmanteau Tests for Time Series Goodness-of-fit," R package version 1.0, 2012.

(http://CRAN.R-project.org/package=WeightedPortTest)

- 2. **Fisher, T. J.** "Weighted Portmanteau Tests Revisited: Detecting Heteroscedasticity, Fitting Nonlinear and Multivariate Time Series," *Invited Paper to the 2012 SAS Global Forum*. (http://support.sas.com/resources/papers/proceedings12/338-2012.pdf)
- 1. **Fisher, T. J.** "Testing the Adequacy of ARMA Models using a Weighted Portmanteau Test on Residual Autocorrelations," *Contributed Paper to the 2011 SAS Global Forum*. (http://support.sas.com/resources/papers/proceedings11/327-2011.pdf)

## **Ongoing projects**

- "Modeling the Zooplankton foodweb in Acton Lake" with Mitch Beebe, Maria Gonzalez and Ricardo Rodrguez de la Vega.
- "Modeling the dynamics of the Atlantic and Pacific Tropical Cyclone Basins" with Robert Lund and Michael Robbins.
- "Variable Selection in Big Data" with Qi He, Xuyi Pei, Xinqi Liu, and Jing Zhang.
- "An analysis of Weather Forecast across the Continental United States" with <u>Robert Garrett</u>, <u>Benjamin Schweitzer</u>, <u>Nichole Rook</u> and Ryan Estep.
- "Analysis of New York City Housing data in time" with <u>Robert Garrett</u>, <u>Lydia Carter</u>, <u>Alison Tuiyott</u>, Benjamin Schweitzer and Karsten Maurer.
- "Estimation and testing on the autocovariance matrix in a time series" with <u>Daniel Cirkovic</u>.

<sup>\*</sup> underline denotes current/former Miami statistics student

# **Grant Activity**

### **Awarded**

- **PI:** "New Multivariate Techniques in Time Series Analysis and Forecasting," *University of Missouri Research Board*, \$13,000, 1 June 2011 to 31 May 2012.
- **PI:** "Adaptive Estimation in Time Series," *Miami University Faculty Research Grants*, **\$6,500**, 19 May 2014 to 1 Aug 2014.
- **PI:** "Adaptive Estimation in Time Series," *Miami University College of Arts & Science Faculty Funding*, \$5,000, Summer 2015.
- **Co-PI:** "Bayesian Variable Selection for Predictive Modeling," *Center for Analytics and Data Science Summer Fellowship*, **\$8,623.86**, Summer 2017.
- **Co-PI:** "Will increases in dissolved organic matter accelerate a shift in trophic status through anoxiadriven positive feedbacks in an oligotrophic lake?", *National Science Foundation Long Term Research in Environmental Biology*, **\$126,391**, 1 June 2018 to 31 May 2023.
- Co-PI: "MTD Forecasting Project," Center for Analytics and Data Science Project, \$10,137, 15 Aug 2018 to 31 Oct 2018.

# **Research Advising**

## **Undergraduate Projects**

- Emily Morris, 2014-2015, "Modeling and Detecting Changes in Water Quality of a Midwest Watershed."
- Alec Feeman, 2015-2016, First Year Research Experience: "Investing using Short Term Econometric Predictors."
- Cody Phillips, Robert Garrett, AJ Tatro, spring 2016-spring 2017, "Analysis of National Automotive Sampling System." Part of the 2016 JSM GSS Data Challenge.
- AJ Tatro, 2016-2017, "Bayesian Variable Selection in Time Series Models."
- Robert Garrett, Ritu Narahari, spring 2017-fall 2017, "Analysis of the Consumer Expenditure Survey." Part of the 2017 JSM GSS Data Challenge.
- Robert Garrett, Benjamin Schweitzer, Nichole Rook, Ryan Estep, spring 2018-spring 2019, "An analysis of Weather Forecast in the Continental United States." Part of the 2018 JSM GSS-SCG DataExpo.
- Robert Garrett, Benjamin Schweitzer, Alison Tuiyott, Lydia Carter, spring 2019-present, "Analysis of New York City housing history." Part of the 2019 JSM GSS-SCG DataExpo.

## **Masters Advising**

- Bo Wang, 2014, *M.S. Thesis, Dept. of Economics*, "Detecting Shift in Mean and Variance for Both Uncorrelated and Correlated Series Using Several Popular Tests."
- Veena Vezhapparambu, 2012, M.S. Project, "Modeling Daily Rainfall and Detecting Changepoints."
- Mehee Cho, 2014-2015, M.S. Project, "The Bass Model and Marketing Prediction."
- Adam Barnhard, 2015, co-advised with Doug Noe, *M.S. Project*, "Utilizing Unsupervised Maching Learning Models to Predict User Activity from Wearable Technology Sensor Data."
- Zequn Sun, 2016, M.S. Project, "Testing for Causality in Variance for Two Stationary Time Series."
- Mitch Beebe, 2016, M.S. Project, "Exploring and Modeling the Zooplankton Food Web in Acton Lake."
- Stephen Colegate, 2016, co-advised with Jing Zhang, *M.S. Project*, Analyzing Changes in the Proportions of Phytoplankton of a Freshwater Lake."
- Qi He, 2017-2018, co-advised with Jing Zhang, M.S. Project, "Bayesian Variable Selection in Big Data."
- Jie Wang, 2017-2019, co-advised with Jing Zhang, *M.S. Project*, "Bayesian Variable Selection in Time Series Models."
- Chengjun Shi, 2017-2018, co-advised with Michael Hughes, *M.S. Project*, "A times series analysis of the metabolic rate of Shrews."
- Kyle Linville, 2018, co-advised with A. John Bailer, *M.S. Project*, "An analysis of Point Spread Accuracy in Professional Football."
- Xuyi Pei, 2018-2019, co-advised with Jing Zhang, *M.S. Project*, "Variable Split and Merge applications for predictive modeling."
- Xinqi Liu, 2018-2019, co-advised with Jing Zhang, M.S. Project, "Divide and conquer techniques in generalized linear modeling."
- Erika Rasnick, 2019, co-advised with A. John Bailer, M.S. Project, "Modeling lagged toxicity."
- Daniel Cirkovic, 2019-2020, M.S. Project, "Estimation and testing of the autocovariance matrix for multivariate time series."

## **Masters Committees**

- Alexander Martishius (2014), Steve Kiplagat (2014), Michael Tekavec (2014), Jefei Zhang (2014), Michael LaTour (2014), Lin Dai (2014), Claire Gilbert (2015), Diana Eid (2016), Baini Li (2017), Michael Creutzinger (2018), Nathaniel Coffin (2018), Nicole Berry (BIO) (2018), Gongmei Li (2018), Bunyod Tusmatov (2019).

### **PhD Committees**

- Nikki Berry (BIO), Rachel Pilla (BIO), Jake Godfrey (BIO).
- Jianfeng Meng, Wei Wu, Karen Richard at UMKC.

# **Seminar Talks**

- 5. "Weighting the Portmanteau Test," *Department of Statistics, University of Missouri-Columbia, Department Colloquium*, 28 November 2012.
- 4. "Time Series Modeling and Diagnostic Testing," *Department of Mathematics and Statistics, University of Missouri-Kansas City, Graduate Seminar*, 18 November 2011.
- 3. "The Stein Paradox and Estimation of the Covariance Matrix," *Department of Mathematics and Statistics, University of Missouri-Kansas City, Graduate Seminar*, 24 September 2010.
- 2. "Improved Stein-type Estimators for the Covariance Matrix under Normality," *Department of Mathematical Sciences, Clemson University, Graduate Student Seminar*, 9 November 2009.
- 1. "Introduction to the R Project for Statistical Computing," *Department of Mathematical Sciences, Clemson University, Graduate Student Seminar*, 8 October 2007.

# **Conference, Panels and Workshop Presentations**

- 14. "ggvoronoi: Voronoi tesselations in R," *Contributed talk to the 2019 Joint Statistical Meetings, Section on Statistical Graphics*, Denver, CO, 31 July 2019.
- 13. "Scaling a Data Science Curriculum to the Masses: Success and Failures in the Undergraduate Classroom," *Invited talk to the 2018 Joint Statistical Meetings, Section on Statistical Education*, Vancouver, BC, 29 July 2018.
- 12. "Detecting and Modeling Changes in a Time Series of Proportions: An Application to Phytoplankton Taxa in a Freshwater Lake," *Invited talk to the Third Annual Kliakhandler Conference: Bayesian Inference in Statistics and Statistical Genetics*, Houghton, MI, 17 August 2017.
- 11. "Testing for Causality Between Two Time Series Using a Parametric Bootstrap," *Contributed talk to the 2017 Joint Statistical Meetings, Business and Economic Statistics Section*, Baltimore, MD, 1 August 2017.
- 10. Invited Panelist to the 2017 Joint Statistical Meetings Student Chapter Workshop, Baltimore, MD, 31 July 2017.
- 9. "Improving the Measure of Correlation in Time Series Goodness-of-Fit Testing," *Contributed SPEED session to the 2016 Joint Statistical Meetings, Business and Economic Statistics Section*, Chicago, IL, 2 August 2016.
- 8. "Detecting Changes in the Quality and Ecology of a Freshwater Lake," *Contributed talk to the 2015 Joint Statistical Meetings, Section on Statistics and the Environment*, Seattle, WA, 12 August 2015.
- 7. "An Application of Stochastic Optimization to Time Series Modeling," *Presentation at 42nd Annual Mathematics Conference "Optimization"*, Oxford, OH, 19 September 2014.
- 6. "Weighting the Times Series Portmanteau Test," *Poster Presentation at Southern Regional Council on Statistics Summer Conference 2013*, Nashville, TN, 4 June 2013.
- 5. "New Weighted Portmanteau Statistics for Time Series Goodness-of-Fit Testing," *Poster Presentation at NBER-NSF Time Series Conference*, College Station, TX, 27 October 2012.
- 4. "Time Series Goodness-of-Fit Testing using a Weighted Portmanteau Statistic," *Contributed talk to the 2012 Joint Statistical Meetings, Business and Economic Statistics Section*, San Diego, CA, 31 July 2012.
- 3. "Weighted Portmanteau Tests Revisited: Detecting Heteroscedasticity, Fitting Nonlinear and Multivariate Time Series," *Invited Paper to the 2012 SAS Global Forum*, Orlando, FL, 24 April 2012.
- 2. "Testing on the Multivariate Normal Covariance Matrix in High-Dimensions," *Contributed Talk to the 2011 Joint Statistical Meetings, Section on Statistics in Epidemiology*, Miami, FL, 2 August 2011.
- 1. "Testing the Adequacy of ARMA Models using a Weighted Portmanteau Test on Residual Autocorrelations," *Contributed Paper to the 2011 SAS Global Forum*, Las Vegas, NV, 5 April 2011.

# **Teaching Experience**

# Miami University, Department of Statistics:

Course	Title	Semester	Students	Rating*
Sta 402/502	Statistical Programming	Spring 2019	24	3.75
Sta 467/567	Statistical Learning	Spring 2019	32	3.00
Sta 363	Intro to Statistical Modeling	Fall 2018	46	3.47
Sta 483/583	Analysis of Forecasting Systems	Fall 2018	30	3.29
Sta 363	Intro to Statistical Modeling	Spring 2018	25	3.50
Sta 402	<b>Statistical Programming</b>	Spring 2018	22	3.81
Sta 402	<b>Statistical Programming</b>	Fall 2017	24	3.35
Sta 463	Regression Analysis	Fall 2017	27	3.48
Sta 402/502	Statistical Programming	Spring 2017	25	3.45
Sta 483/583	Analysis of Forecasting Systems	Spring 2017	21	3.74
Sta 665	Theory of Statistics	Spring 2017	17	3.44
Sta 483/583	Analysis of Forecasting Systems	Fall 2016	16	3.50
Sta 664	Theory of Statistics	Fall 2016	19	3.38
Sta 402/502	Statistical Programming	Spring 2016	20	3.55
Sta 483/583	Analysis of Forecasting Systems	Spring 2016	20	3.53
Sta 301	Applied Statistics	Spring 2015	82	3.54
Sta 483/583	Analysis of Forecasting Systems	Spring 2015	22	3.50
Sta 401/501	Probability	Fall 2014	13	3.67
Sta 462/562	Inferential Statistics	Fall 2014	25	3.70
Sta 261	Statistics	Spring 2014	80	3.17
Sta 483/583	Analysis of Forecasting Systems	Spring 2014	42	3.57
Sta 301	Applied Statistics	Winter 2014	15	3.67
Sta 462/562	Inferential Statistics	Fall 2013	27	3.64
Sta 667	Multivariate Statistical Analysis	Fall 2013	8	3.50

<sup>\*</sup> The average score on question #5 on student course evaluations. The question asks for an overall evaluation of the effectiveness of the instructor on a 4 points scale, 4 being the best, 0 the worst.

# University of Missouri-Kansas City, Department of Mathematics & Statistics:

Course	Title	Semester	Students	Rating**
Stat 235	Elementary Statistics	Spring 2013	72	4.505
Stat 5572	Multivariate Analysis	Spring 2013	4	4.963
Stat 436	Mathematical Statistics I	Fall 2012	15	4.316
Stat 5551	Applied Statistical Analysis	Fall 2012	9	4.741
Stat 235	Elementary Statistics	Spring 2012	71	4.554
Stat 5572	Multivariate Analysis	Spring 2012	10	4.789
Math 300	Linear Algebra I	Fall 2011	28	4.483
Stat 5551	Applied Statistical Analysis	Fall 2011	6	4.852
Stat 235	Elementary Statistics	Spring 2011	69	4.341
Stat 5572	Multivariate Analysis	Spring 2011	8	4.778
Stat 235	Elementary Statistics	Fall 2010	40	4.520

<sup>\*\*</sup> The weighted average of questions #1 to #9 on student course evaluations. The weighted average provides an overall teaching evaluation on a 5 point scale, 5 being the best, 1 the worst.

# Clemson University, Department of Mathematical Sciences:

Course	Title	Semester	Students	Rating***
MthSc 106	Calculus of One Variable	Spring 2010	37	4.15
MthSc 302	<b>Engineering Statistics</b>	Spring 2010	35	4.09
MthSc 309	<b>Introductory Business Statistics</b>	Fall 2009	37	4.11
MthSc 302	<b>Engineering Statistics</b>	Spring 2009	24	4.54
MthSc 302	<b>Engineering Statistics</b>	Fall 2008	45	4.42
MthSc 302	<b>Engineering Statistics</b>	Spring 2008	18	3.88
MthSc 309	Introductory Business Statistics	Fall 2007	29	4.11
MthSc 207	Multivariable Calculus	Spring 2007	19	4.05
MthSc 102	Intro. to Mathematical Analysis	Spring 2006	19	3.94
MthSc 102	Intro. to Mathematical Analysis	Fall 2005	38	4.18

<sup>\*\*\*</sup> The average score on question #10 on student course evaluations. The question asks the student for an overall teaching evaluation on a 5 points scale, 5 being the best, 1 the worst.

### Service

### **Professional**

- Associate Editor, *Journal of Applied Statistics* (08/17-present) 9 articles
- Reviewer for Journals:
  - Statistics in Medicine (08/19-09/19), Earth and Space Science (02/19-08/19), Journal of Business & Economic Statistics (01/14-09/14, 11/16-02/17, 01/18-05/18, 01/19-06/19), Journal of Statistical Computation and Simulation (08/16-12/16), Statistics: A Journal of Theoretical and Applied Statistics (11/16-09/17), The American Statistician (07/17-08/17, 09/14-11/14), Communications in Statistics: Theory and Methods (01/17-05/17), Journal of Business & Economic Statistics (01/14-09/14, 11/16-02/17, 01/17-present), Journal of the American Statistical Association (09/16-11/16), Computational Statistics & Data Analysis (01/15-04/15, 07/15-09/15, 08/16-10/16), Journal of Multivariate Analysis (06/13-02/14, 07/13-12/13, 03/16-05/16), The Annals of Statistics (02/16-04/16), Environmental Toxicology & Chemistry (01/16-02/16), Scandinavian Journal of Statistics (08/15-10/15), International Journal of Undergraduate Research and Creative Activities (02/15-03/15, with Stephen Colegate), Hacettepe Journal of Mathematics and Statistics (09/14-11/14), Environmetrics (05/14-06/14), Metrika (06/14-07/14, 05/13-06/13), Far East Journal of Theoretical Statistics (02/14-05/14), Bernoulli Journal (01/12-08/13), Portuguese Statistical Society (12/11-02/12).
- Grant Review:
  - Ohio Water Resources State Water Resources Research Institute 104(b) Grant Program (12/14)
- Other:
  - Session Chair at 2015 Joint Statistics Meetings Section on Statistics and the Environment
  - October-November 2017 Judge for ASA Police Data Challenge

## Miami University, Departmental Level Service

- Chief Departmental Advisor, June 2017 to Present.
- Undergraduate Curriculum Committee, August 2013 to Present.
- Ad-hoc Committee to create Actuarial Science co-major, Jan 2014 to Present.
- Statistical Consulting Center, August 2013 to Present.
- Analytics Graduate Certificate Development Committee, December 2013 to April 2014.
- Hiring Committee and Chair (8-positions)
  - Member: September 2014 to January 2015, September 2016 to April 2017.
  - Chair: June 2017-December 2017, September 2018-December 2018, January 2019-April 2019.

# Miami University, Student-Oriented Service

- DataFest Organizing Committee, Chair October 2015 to May 2016; Member May 2016 to Present.
- Advisor for Mathematics & Statistics, August 2013 to June 2017.
- Advisor for Co-Major in Analytics, August 2014 to Present.
- First-year advisor for Math & Statistics, August 2015 to June 2017.
- Divisional Coordinator, University Academic Scholars Program in Mathematics & Statistics, November 2014 to Present.
- Advisor for ASA Student Chapter, August 2015 to Present.
- Co-Advisor (with Byran Smucker) for Actuarial Science Club, January 2014 to Present.

# Miami University, College & University Level Service

- Hiring Committee for Systems Administrator II or III Architect (Cloud/ITSM) position IT Services, March 2018.
- Make it Miami Recruitment at UASP and Honors breakfast and Louis Place events.
- CAS representative at commencement & volunteer, 2015, 2016, 2017.
- Discover the Sciences recruitment event volunteer, September 2013, September 2014, September 2017 & September 2018.
- Volunteer for Careers Involving Quantitative Skills (CIQS) day, January 2015, January 2016, January 2017 & January 2018.

## **UMKC Service**

- Hiring Committee (3-positions), September 2012 to April 2013.
- Graduate Teaching Assistant Supervisor, August 2012 to May 2013.
- Graduate Assessment Coordinator, January 2011 to May 2013.
- Statistics Curriculum Committee, August 2010 to May 2013.
- Salary Committee, May 2011 to August 2011.
- Committee to revise IPhD Requirements, October 2010 to January 2011.

## **Awards and Honors**

- Top Ten finalist Associated Student Government Outstanding Professor Award, 2017.
- SAS Global Forum Faculty Scholarship, 2011.
- Outstanding Citizenship Award, Department of Mathematical Sciences, Clemson University, 2007-2008
  Academic Year.
- Outstanding Graduate Teaching Assistant Award, Department of Mathematical Sciences, Clemson University, 2005-2006 Academic Year.

# **Professional Memberships and Interest**

### **Professional Affiliations**

- American Statistical Association (ASA).

# **Professional Development/Activities**

- Intermediate Shiny short course at RStudio conference, 15-16 January 2019.
- ASA short course on "Design and Analysis of Research Studies Using Generalized Linear Mixed Models," University of Cincinnati, 16 November 2015.
- "Presenting Data and Information" Workshop by Edward Tufte, 10 November 2015.
- "Visualizing Data: A Truthful Art" Workhop by Alberto Cairo, 23 January 2015.
- ASA short course on "Structural Equation Modeling," Proctor & Gamble, 13 September 2013.
- NSF Day, University of Kansas, 5 October 2010.
- CAEFF NSF Site Visit, Clemson University, 23 September 2008.

### **Professional Interest**

- Multivariate Analysis and its application to modern science: genetics and economics.
- Time-Series Analysis and Forecasting.
- Stochastic Processes, Probability and Kernel Smoothing.

## **Personal Interests**

### **Personal Affiliations**

- Cincinnati Curling Club.
- Maryland State Archives.
- Maryland Historical Society.
- Maryland Genealogical Society.
- USA Hockey.

### **Personal Interest**

- Genealogy and History.
- Home-brewing.
- Recreational Softball, Hiking, Tennis and Ice-Hockey.