Xia Wang

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Education

Ph.D. Statistics, University of Connecticut 2009

Ph.D. Economics, University of Connecticut 2007

M.A. Financial Economics, Zhongnan University of Economics and Law, China 2001

B.A. Economics (major), Industrial Management (minor), Huazhong University of Science and Technology, China 1996

Positions and Work Experience

Professor, Department of Mathematical Sciences, University of Cincinnati 2022.8 - present

Visiting Scholar, Neuroimaging for Language, Literacy and Learning (NL3) Lab, University of Nebraska-Lincoln 2025.8-2025.12

Associate Professor, Department of Mathematical Sciences, University of Cincinnati 2017.8 - 2022.8

Assistant Professor, Department of Mathematical Sciences, University of Cincinnati 2011.8 - 2017.8

Postdoctoral Fellow, National Institute of Statistical Sciences, RTP, NC 2009 - 2011

Publications

(Note: † Ph.D. student coauthor.)

A. Refereed Publication (38)

Statistical Methodology

1. E. Odoom†, J. R. Ouyang, X. Cao and X. Wang. (2026) "Hierarchical consistent skinny Gibbs sampler in logistic regression using Pólya–Gamma latent variables". *Statistics and Its Interface* 19(2). 179 - 196.
2. H-C. Zhang† and X. Wang. (2025). "Variable Selection for Zero-Inflated Poisson Regression Model". *Journal of Statistical Computation and Simulation*, 1 - 18. doi: 10.1080/00949655.2025.2575872
3. W.-Z. Su† and **X. Wang**. (2023) "Multiple hypotheses testing on dependent count data with covariate effects". *Statistics and Its Interface 16 (3).* 409 – 417.
4. W.-J. Su†, **X. Wang** and R. D. Szczesniak. (2021). "Flexible link functions in a joint hierarchical Gaussian process model". *Biometrics* 77 (2), 754-764.
5. W.-J. Su†, E. Gecili, **X. Wang** and R. D. Szczesniak. (2021) "An empirical comparison of segmented and stochastic linear mixed effects models to estimate rapid disease progression in longitudinal biomarker studies". *Statistics in Biopharmaceutical Research* 13(3):270-279.
6. **X. Wang**, J. Pancras, and D. K. Dey. (2021). "Investigating emergent nested geographic structure in consumer purchases: a Bayesian dynamic multi-scale spatiotemporal modeling approach". *Journal of Applied Statistics* 48(3), 410-433.

7. W.-J. Su†, **X. Wang** and R. D. Szczesniak. (2020). "Risk factor identification in cystic fibrosis by flexible hierarchical joint models". *Statistical Methods in Medical Research* 30(1), 244-260.
8. W.-Z. Su† and **X. Wang**. (2020). "Hidden Markov model in multiple testing on dependent count data." *Journal of Statistical Computation and Simulation* 90(5), 889-906.
9. Y. Zhang†, **X. Wang**, and B. Zhang. (2019). "Bayesian approach for clustered interval-censored data with time-varying covariate effects", *Statistics and Its Interface* 12(3), 457–465.
10. D. Li†, **X. Wang**, and D. K. Dey. (2019). "Power link functions in ordinal regression models with Gaussian process priors', *Environmetrics* 30(6), https://doi.org/10.1002/env.2564.
11. **X. Wang**, A. Shojaie, and J. Zou. (2019). "Bayesian hidden Markov models for dependent large-scale multiple testing", *Computational Statistics & Data Analysis* 136, 123-136.
12. L.L. Duan†, **X. Wang**, J.P. Clancy, and R. D. Szczesniak. (2018). "Joint hierarchical Gaussian process model with application to personalized prediction in medical monitoring", *Stat* 7(1), doi: 10.1002/sta4.178.
13. L. L. Duan†, R. D. Szczesniak, and **X. Wang**. (2017). "Functional inverted-Wishart for Bayesian multivariate spatial modeling with application to regional climatology model data", *Environmetrics* 28(7), doi:10.1002/env.2467.
14. E.Salazar, D. Hammerling, **X. Wang**, B. Sansó, A.O. Finley, and L. Mearns. (2016). "Observation-based blended projections from ensembles of regional climate models," *Climatic Change* 138(1), 55-69.
15. D. Li†, **X. Wang**, and D. K. Dey. (2016). "A flexible cure rate model for spatially correlated survival data based on generalized extreme value distribution and Gaussian process priors," *Biometrical Journal* 58(5), 1178–1197.
16. **X. Wang**, M-H Chen, R. C. Kuo, and D. K. Dey. (2016). "Dynamic spatial pattern recognition in count data," Z. Jin et al. (eds.), *New Developments in Statistical Modeling, Inference and Application, ICSA Book Series in Statistics*, Springer International Publishing Switzerland, doi: 10.1007/978-3-319-42571-9_10, pp. 185–202.
17. J. Pancras, **X. Wang**, and D. K. Dey. (2016)."Investigating the impact of customer stochasticity on firm price discrimination strategies using a new Bayesian mixture scale heterogeneity model," *Marketing Letters* 27(3), 537-552, doi: 10.1007/s11002-015-9362-1.
18. D. Li†, **X. Wang**, L. Lin, and D. K. Dey. (2016). "Flexible link functions in nonparametric binary regression with Gaussian process priors," *Biometrics* 72(3), 707–719, doi: 10.1111/biom.12462.
19. **X. Wang**, M-H Chen, R. C. Kuo, and D. K. Dey. (2015). "Bayesian spatial-temporal modeling of ecological zero-inflated count data," *Statistica Sinica* 25 (1), 189-204, doi: 10.5705/ss.2013.212w.
20. D. Li†, **X. Wang**, S. Song, N. Zhang, and D. K. Dey. (2015). "Flexible link functions in a joint model of binary and longitudinal data", *Stat* 4(1), 320–330, DOI: 10.1002/sta4.98.
21. **X. Wang** and D. K. Dey. (2011). "Generalized extreme value regression for ordinal response data," *Environmental and Ecological Statistics* 18(4), 619-634, doi: 10.1007/s10651-010-0154-8.
22. E. Salazar, B. Sansó, A. Finley, D. Hammerling, I. Steinsland, **X. Wang**, and P. Delamater. (2011). "Comparing and blending regional climate model predictions for the American southwest," *Journal of Agricultural, Biological, and Environmental Statistics, Special Issue: Computer Models and Spatial Statistics for Environmental Science* 16(4), 586-605.
23. **X. Wang**, D. K. Dey, and S. Banerjee. (2010). "Non-Gaussian hierarchical generalized linear geostatistical model selection." In M-H Chen, D. K. Dey, P. Müller, D. Sun, and K. Ye (eds.), *Frontiers of Statistical Decision Making and Bayesian Analysis*, 484-96, Springer.
24. **X. Wang** and D. K. Dey. (2010). "Generalized extreme value regression for binary response data: an application to B2B electronic payments system adoption," *Annals of Applied Statistics* **4**(4), 2000-2023, doi:10.1214/10-AOAS354

Interdisciplinary Research

25. **X. Wang**, D. Washington and G. F. Weber. (2021). "Complex systems analysis informs on the spread of COVID-19". *Epidemiologic Methods* 10 (s1), pp. 20210019. doi: 10.1515/em-2021-0019.

26. **X. Wang** and G. F. Weber. (2021). "Quantitative analysis of protein evolution: the phylogeny of Osteopontin". *Frontiers in Genetics* 12:700789. doi: 10.3389/fgene.2021.700789.
27. M. T. Booth, M. Urbanic, **X. Wang**, and J.J. Beaulieu. (2021). "Bioturbation frequency alters methane emissions from reservoir sediments", *Science of the Total Environment* 789. doi: 10.1016/j.scitotenv.2021.148033
28. V. N Chihota, A. Niehaus, E. M. Streicher, **X. Wang**, S. L. Sampson, P. Mason, G. Källenius, S. G. Mfinanga, M. Pillay, M. Klopper, W. Kasongo, M. Behr, N. C. Gey van Pittius, P. van Helden, D. Couvin, N. Rastogi, R. M. Warren.(2018). "Geospatial distribution of Mycobacterium tuberculosis genotypes in Africa". *PLoS ONE* 13(8): e0200632.
29. A.E. Egan, A.M.K. Thompson, D. Buesing, S. M. Fourman, A.E.B. Packard, T. Terefe1, D. Li†, **X. Wang**, S. Song, M.B. Solomon, Y.M. Ulrich-Lai. (2018). "Palatable food affects HPA axis responsivity and forebrain neurocircuitry in an estrous cycle-specific manner in female rats", *Neuroscience* 384(1), 224-240.
30. K. Dorris, C. Liu, D. Li, T. Hummel, **X. Wang**, J. Perentesis, M-O Kim, M. Fouladi. (2017) "A comparison of safety and efficacy of cytotoxic versus molecularly-targeted drugs in pediatric phase I solid tumor oncology trials," *Pediatric Blood & Cancer* 64(3). doi: 10.1002/pbc.26258.
31. M-O. Kim, **X. Wang**, C. Liu, K. Dorris, M. Fouladi, and S. Song. (2017). "Random-effects meta-analysis for systematic reviews of Phase I clinical trials: rare events and missing data," *Research Synthesis Methods* (8), 124–135, doi: 10.1002/jrsm.1209.
32. Y. M. Ulrich-Lai, A. M. Christiansen, **X. Wang**, S. Song, and J.P. Herman. (2016). "Statistical modeling implicates neuroanatomical circuit mediating stress relief by 'comfort' food," *Brain Structure and Function* 221(6), 3141-3156, doi: 10.1007/s00429-015-1092-x.
33. D. L. Tabb, **X. Wang**, S. A. Carr, et al. (2015). "Reproducibility of differential proteomic technologies in CPTAC fractionated xenografts", *Journal of Proteome Research* 15(3), 691–706. doi: 10.1021/acs.jproteome.5b00859. (**selected as ACS Editors' Choice publication**)
34. K. L. Bennett, **X. Wang**, C. E. Bystrom, et al. (2015). "Assessing longitudinal intra-laboratory variability in routine peptide liquid chromatography tandem mass spectrometry analyses," *Molecular & Cellular Proteomics* 14, 3299-3309, doi: 10.1074/mcp.O115.051888.
35. R. Slebos, **X. Wang**, X-J. Wang, B. Zhang , D. Tabb , and D. Liebler. (2015). "Proteomic analysis of colon and rectal carcinoma using standard and customized databases," *Scientific Data* 2, Article number:150022, doi: 10.1038/sdata.2015.22.
36. P. A. Rudnick (*), **X. Wang**(*), E. Yan, N. Sedransk and S. E. Stein. (2014). "Improved normalization of systematic biases affecting ion current measurements in label-free proteomics data,"*Molecular & Cellular Proteomics* 13(5), 1341-1351, doi: 10.1074/mcp.M113.030593. (* These authors contributed equally to this work.)
37. **X. Wang**, M. C. Chambers, L. J. Vega-Montoto, D. M. Bunk, S. E. Stein, D. L. Tabb. (2014). "QC metrics from CPTAC raw LC-MS/MS data interpreted through multivariate statistics," *Analytical Chemistry* 86(5), 2497-2509, doi: 10.1021/ac4034455.
38. W. M. Dest, K. Guillard, S. L. Rackliffe, M-H Chen, and **X. Wang**. (2010). "Putting green speeds: a reality check!", *Applied Turfgrass Science* 7(1), 1-9. doi:10.1094/ATS-2010-0216-01-RS.

B. Unrefereed Publication (2)

1. **X. Wang**. (2017). "Statistical Assessment of QC Metrics on Raw LC-MS/MS Data", *Methods in Molecular Biology, Proteomics: Methods and Protocols*, 325–337. L. Comai, J. Katz, and P. Mallick (editors), Springer Nature, New York., doi:10.1007/978-1-4939-6747-6$_2$2.
2. **X. Wang** and N. Sedransk. (2011). "Bayesian models on biomarker discovery using spectral count data in the label-free shotgun proteomics," JSM 2011 Proceedings, 3445-3453.

C. Manuscript under Revision (2)

1. E. Odoom† and X. Wang. "Consistent and Scalable Variable Selection with Robust Link Functions". Under minor revision for *The New England Journal of Statistics in Data Science*.

2. Weiji Su†, Xia Wang, Pedro M. Afonso, Eleni-Rosalina Andrinopoulou, Rhonda D. Szczesniak. "Estimating Disease Progression in the Presence of an Outcome-dependent Visiting Process with Application to Cystic Fibrosis Clinical Data ", under minor revision for *The New England Journal of Statistics in Data Sciences*.

Research Funds (Awarded)

2025

1. FDF Spring 2026 Award, University of Cincinnati $3112.00
2. Taft International Conference Travel Grant, University of Cincinnati $3410.39
3. Taft Travel for Research Award, University of Cincinnati $3544.00

2024

1. Step 2 grant of the CCTST Process & Method, Center for Clinical & Translational Science & Training $5000.00

2023

1. Taft Domestic Conference Travel Grant, University of Cincinnati $1500.00
2. Taft International Conference Travel Grant, University of Cincinnati $2900.00
3. Taft Reading Group on Bayesian Data Analysis, University of Cincinnati $300.00

2022

1. Charles Phelps Taft Center 2022 Summer Undergraduate Research Mentor-Mentee Award, University of Cincinnati (UC) $4, 000.00
2. Universal Provider Award, Statistics Consulting Center operation in AY22-23, UC $74,754.20
3. The Biostatistics, Epidemiology and Research Design Core of the CCTST Research Voucher, UC $2,000.00

2021

1. Charles Phelps Taft Center 2021 Summer Research Fellowship, University of Cincinnati (UC) $8, 000.00
2. Universal Provider Award, Statistics Consulting Center operation in AY21-22, UC $66,198.40

2020

1. Universal Provider Award, Statistics Consulting Center operation in AY20-21, UC $59,155.00

2019

1. Stress resilience by natural rewards: neurocircuit mechanisms, National Institute of Mental Health (# R01MH119814), 09/11/2019-06/30/2024 Role: Collaborator. $561,667.00
2. Universal Provider Award, Statistics Consulting Center operation in Spring 2020, UC $25,915.25
3. Taft Domestic Conference Travel Grant, University of Cincinnati $1,084.20
4. Faculty Development Fund, University of Cincinnati $2,606.00
5. Creation of a Statistics and Data Science Consulting Center, College Structures Committee Grant, University of Cincinnati $5,000.00

Doctoral Dissertation Committee

Chair (6)

1. **Leo Li Duan**. Graduated in 08/2015. Assistant Professor, Department of Statistics, University of Florida
   Bayesian Nonparametric Methods with Applications in Longitudinal, Heterogeneous and Spatiotemporal Data. (joint with Rhonda Szczesniak, CCHMC)

2. **Dan Li**. Graduated in 08/2016. Assistant Director, Ionis Pharmaceuticals, Inc.
   Bayesian Nonparametric and Semiparametric Models for Categorical, Survival and Longitudinal Data.

3. **Yue Zhang**. Graduated in 08/2016. Research Associate Professor, Shanghai Jiaotong University, China.
   Bayesian Cox Models for Interval-Censored Survival Data. (joint with Rhonda Szczesniak, CCHMC).

4. **Weiji Su**. Graduated in 08/2020. Research Scientist-Statistician, Eli Lilly and Company
   Flexible Joint Hierarchical Gaussian Process Model for Longitudinal and Recurrent Event Data. (joint with Rhonda Szczesniak, CCHMC).

5. **Weizhe Su**. Graduated in 12/2020. Biostatistician, Medpace, Inc.
   Bayesian Hidden Markov Model in Multiple Testing on Dependent Count Data.

6. **Haichao Zhang**. Graduated 12/2024. Scientist, P&G
   Bayesian Modeling and Variable Selection in Dependent Zero-Inflated Count Data.

Ph.D. Students working toward the Advanced Exam (4)

Eric Odoom.

Weiqi Pan.

Ashlyn Garter.

Oliveira Darkwah.

Dissertation Committee Member (27)

1. Zhang, Xiao (2013)
2. Zou, Yuanshu (2013)
3. Li, Qian (2013)
4. Guo, Wei (2014)
5. Kim, Woosuk (2014)
6. Li, Dandan (2014)
7. Glore, Mary Lee (2014)
8. Jaberansari, Negar (2016)
9. Liu, Jinzhong (2017)
10. Gecili, Emrah (2018)
11. Zhou, Wei (2018)
12. Shi, Hongxiang (2017)
13. Zang, Huaiyu (2020)
14. Yuan, Yuan (2021)
15. Almomani, Ayat (2021)
16. Wang, Linna (2021)
17. Herath, Nilupika (2021)
18. Palipana, Anushka (2022)
19. Zhou, Chen (2022)
20. Wu, Tzu-Chun (2022)
21. Yang, Fang (2022)
22. Alamari, Mohammed (2022)
23. Chen, Yizi (2025)
24. Wu, Xin (2023)
25. Zhou, Yuan (current)
26. Ouyang, Jiarong (current)
27. Fagbohungbe, Taiwo (current)

Presentations

Invited Talks (38)

1. "Bayesian Automated Learning of Sparsity in Risk Prediction with Application to Whole-Brain Functional Connectivity Analysis", Joint2025, Taipei, December 17, 2025.
2. "Hierarchical Skinny Gibbs Sampler in Logistic Regression,", the 8th EAC-ISBA, Kyungpook National University, Republic of Korea, July 4-5, 2025.
3. "Variable Selection for Zero-Inflated Poisson Regression Model", the 7th EAC-ISBA, Hong Kong, China, June 25, 2024 (canceled due to personal reason.)
4. "Variable Selection for Zero-Inflated Poisson Regression Model", Statistics Seminar, Department of Statistics, Universidade Federal de Minas Gerais, Brazil, May 10, 2024 (virtual)
5. "Bayesian hidden Markov models for dependent large-scale multiple testing", Division of Biostatistics and Bioinformatics Seminar, University of Cincinnati, Cincinnati, OH, September 15, 2023
6. "Objective Priors in Negative Binomial Models", Pushing the Boundary of Data Science Through Statistical Modeling and Inference, Blacksburg, VA, July 13, 2023
7. "Bayesian hidden Markov models for dependent large-scale multiple testing", Statistics Seminar, IUPUI, March 7, 2023 (virtual)
8. "Bayesian hidden Markov models for dependent large-scale multiple testing", Data Science and Computational Statistics Seminar series of the School of Mathematics and the School of Computer Science, University of Birmingham, UK, December 6, 2022 (virtual)
9. "Joint hierarchical Gaussian process model with applications in cystic fibrosis", Excellence in Statistical Science: a Special Conference Celebrating UConn Department of Statistics 60th Anniversary, University of Connecticut, Storrs, CT, October 15, 2022
10. "A Peek into Our Statistics Program", graduate seminar at the Civil/Architectural Engineering and Construction Management Program, UC, September 21, 2022
11. "Flexible link functions in a joint hierarchical Gaussian process model", EcoSta 2022, June 4-6, 2022 (virtual)
12. "Mixed-Spectrum Gaussian Process for Non-Stationary Modeling of Spatial Outcomes", ISBA 2021, July 2, 2021, Virtual.
13. "Complex Systems Analysis Informs on the Spread of COVID-19", UC International's Virtual Mini-Conference on Responding to the Global Pandemic with Research, March 11, 2021, Virtual.
14. "Power Link Functions in Ordinal Regression Models with Gaussian Process Priors", the 3rd International Conference on Statistical Distributions and Applications, October 12, 2019, Grand Rapids, MI
15. "Bayesian generalized regression models with Gaussian process priors", the 4th EAC-ISBA Meeting, July 14, 2019, Kobe, Japan
16. "Bayesian hidden Markov models for dependent large-scale multiple testing", University of Connecticut, October 26, 2018, Storrs, CT
17. "Investigating nested geographic structure in consumer purchases: a Bayesian dynamic multiscale spatiotemporal modeling approach", The Third ISBA-EAC Conference, July 13, 2018, Seoul, South Korea
18. "Functional inverted-Wishart for Bayesian multivariate spatial modeling with application to regional climatology model data", the 2nd International Conference on Econometrics and Statistics (EcoSta 2018), June 20, 2018, Hong Kong
19. "Bayesian Hidden Markov Models for Dependent Large-Scale Multiple Testing", Bayesian Inference in Statistics and Statistical Genetics The Third Annual Kliakhandler Conference, August 16, 2017, Houghton, MI
20. "Scalable Massive Multivariate Data Modeling", The 31^{st} New England Statistics Symposium, April 22, 2017, Storrs, CT

21. "Flexible Modeling in Generalized Linear Regression Models", Department of Bioinformatics and Biostatistics, University of Louisville, February 17, 2017, Louisville, KY
22. "A New Class of Cross-Covariance Function for Multivariate Spatial Data", the 10th ICSA international conference, December 20, 2016, Shanghai, China
23. "Mentoring ... and Giving Back ", Women in Statistics and Data Science, October 22, 2016, Charlotte, NC
24. "Generalized linear regression models: How flexible it can and should be?", Biostatistics Epidemiology & Research Design Monthly Seminar, May 10, 2016, Cincinnati, OH
25. "Functional Gaussian Process for Large Scale Bayesian Nonparametric Analysis," Statistical Sciences & Operations Research Department, Virginia Commonwealth University, April 21, 2016, Richmond, VA
26. "Bayesian Hidden Markov Model in Large-Scale Multiple Testing," 60th World Statistics Congress - ISI2015, July 28, 2015, Rio de Janeiro, Brazil
27. "Issues in Spatial-Temporal Modeling of Zero-Inflated Count Data," TIES 2014, December 18, 2014, Guangzhou, China
28. "Random-Effects Meta-Analysis for Rare Event Studies with No Within Study Comparator," JSM 2014, August 3, 2014, Boston, MA
29. "Bayesian Modeling of Ecological Count Data," 2014 ICSA and KISS Joint Applied Statistics Symposium, Portland, Oregon, June 16, 2014
30. "Big Opportunities in the Next Decade: SAMSI and NISS," Women in Statistics Conference, Durham, NC, May 16, 2014 (invited panelist)
31. "Bayesian Large-Scale Multiple Testing for Dependent Data," Women in Statistics Conference, Durham, NC, May 16, 2014 (invited poster presentation)
32. "Bayesian Mixture Modeling on Scale Heterogeneity and Customer Stochasticity," EFaB@Bayes250, Durham, NC, December 16, 2013
33. "Bayesian Large-Scale Multiple Testing for Time Series Data," SAMSI 2012-2013 Transition Workshop on Massive Datasets Program, RTP, NC, May 21, 2013
34. "Bayesian Models on Biomarker Discovery Using Spectral Count Data in the Label-free Shotgun Proteomics," The Division of Biomedical Informatics, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, December 7, 2012
35. "Random-Effects Meta-Analysis for Rare Event Studies with No Within Study Comparator," Division of Biostatistics & Epidemiology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, October 10, 2012
36. "Generalized Extreme Value Link Models for Categorical Response Data," Division of Biostatistics & Epidemiology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, February 8, 2012
37. "Space-Time Modeling of Atlantic Cod Abundance in the Gulf of Maine," IISA, Raleigh, NC, 2011
38. "Bayesian Development of a Generalized Link Function for Binary Response Data," ENAR, San Antonio, TX, 2009

Contributed Talks (24)

1. "Joint hierarchical Gaussian process model with applications in cystic fibrosis", JSM 2023, August 9, 2023, Toronto, Canada
2. "Hidden Markov Model in Multiple Testing on Dependent Count Data", contributed presentation (virtual), the 28th Nordic Conference in Mathematical Statistics, June 23, 2021, Tromsø, Norway
3. "Power Link Functions in Modeling Dependent Ordinal Data", Poster Presentation, SAMSI MUMS Opening Workshop, August 20, 2018, Durham, NC
4. "Flexible link functions in nonparametric binary regression with Gaussian process priors", Topic-contributed presentation, JSM 2016, August 3, 2016, Chicago, IL
5. "Bayesian Modeling for Change Point Detection in Longitudinal Clinical Proteomics Experiments," SPEED oral and poster presentation, JSM 2015, August 11, 2015, Seattle, WA

6. "Presence and Abundance of Atlantic Cod in Gulf of Maine: A Bayesian Approach," SAMSI 2014-2015 Mathematical and Statistical Ecology, August 19, 2014, RTP, NC
7. "A Hidden Markov Model for Multiple Hypothesis Testing," the 6th International Statistics Forum at Renmin University of China, May 25, 2014, Beijing, China
8. "Bayesian Large-Scale Multiple Testing for Time Series Data," SAMSI 2013-2014 LDHD Summer School, Poster Presentation, August 12, 2013, RTP, NC,
9. "Bayesian Spatial-Temporal Modeling of Ecological Zero-Inflated Count Data," Topic-contributed, August 4, JSM 2013, Montréal, Canada
10. "Bayesian Mixture Modeling on Customer Stochasticity," 15th IMS New Researchers Conference, Poster Presentation, August 1, 2013, Montréal, Canada
11. "Review and Discussion on *Large-scale Multiple Testing under Dependence* (Sun and Cai 2009)," Working Group Meeting for SAMSI MD Inference for Multiple Testing, Research Triangle Park, NC, December 5, 2012
12. "Space-Time Modeling of Atlantic Cod Abundance in the Gulf of Maine," poster presentation, SAMSI Opening Workshop on Massive Datasets Program, Research Triangle Park, NC, 2012
13. "Bayesian Functional Models for Biomarker Discovery in Clinical Proteomics Study," JSM, San Diego, CA, 2012
14. "An Application of the Rare and Weak Model in Proteomics Study," ENAR, Washington, D.C., 2012
15. "Spatial Regression Models," Special Topics Seminar Series in Statistics, University of Cincinnati, OH, 2012
16. "Space-Time Modeling of Atlantic Cod Abundance in the Gulf of Maine," Statistics Seminar, University of Cincinnati, OH, 2011
17. "Bayesian Hierarchical Modeling of Spectral Count Data in Label-free Shotgun Proteomics Analysis," JSM, Miami, FL, 2011
18. "Bayesian Hierarchical Modeling of Spectral Count Data in Label-free Shotgun Proteomics Analysis," ENAR, Miami, FL, 2011
19. "Bayesian Models on Fish Species Richness in the Gulf of Maine," JSM, Vancouver, Canada, 2010
20. "Bayesian Models on Fish Species Richness in the Gulf of Maine," SAMSI Working Group on Computation, Visualization, and Dimension Reduction in Spatio-Temporal Modeling, Research Triangle Park, NC, 2010
21. "Monitoring System Stability in an Interlab Pilot MRM Proteomics Study," SAMSI Post Doc - Grad Student Seminar, Research Triangle Park, NC, 2010
22. "Variability in Proteomic Analysis by Liquid Chromatography - Tandem Mass Spectrometry," SAMSI Post Doc - Grad Student Seminar, Research Triangle Park, NC, 2009
23. "A Generalized Skewed Model for Binary Response Data," JSM, Washington, D. C., 2009
24. "Non-Gaussian Hierarchical Generalized Linear Geostatistical Models," 23rd New England Statistical Symposium, Storrs, CT, 2009

Professional Services

Professional Committee

2025 - 2026 Chapter Chair, EAC-ISBA

2023 - 2024 Member, Program Committee, the 7th Eastern Asia Chapter (EAC) of International Society for Bayesian Analysis (ISBA) Conference

2023 Member, Organizing Committe, Pushing the Boundary of Data Science Through Statistical Modeling and Inference, Blacksburg, VA, July 13-14, 2023

2021 - 2023 Officer, Cincinnati Chapter, American Statistical Association (ASA)

2022 - 2023 Member, Organizing Committee, the 6th Eastern Asia Chapter (EAC) of International Society for Bayesian Analysis (ISBA) Conference

2019 - 2021 Member, Scientific Program Committee, the 5th Eastern Asia Chapter (EAC) of International Society for Bayesian Analysis (ISBA) Conference, Yunnan, China

2018 - 2021 Program Chair, Eastern Asia Chapter (EAC) of ISBA

2018 - 2019 Chair, Scientific Program Committee, the 4th EAC-ISBA Conference, Kobe, Japan

2018 - 2019 Member, Scientific Program Committee, International Conference on Statistical Distributions and Applications (ICOSDA) 2019

Grant Review Panel

2020 NSF DMS Statistics Review Panel

2021 NSF MMS Reviewer

Journal Editorial Board

2017 - present Associate Editor, *Sankhya B*

2019 - present Associate Editor, *Statistics and Its Interface*

2025 - present Associate Editor, *Computational Statistics*

Journal Reviewer

Advances in Statistics Analysis
Annals of Applied Statistics
Applied Stochastic Models in Business and Industry
Austrian Journal of Statistics
Biometrics
BMC Medicine
Communications in Statistics-Theory and Methods
Communications in Statistics-Simulation and Computation
Computational Statistics
Computational Statistics & Data Analysis
Economics Letters
Environmetrics
Environmental and Ecological Statistics
IEEE The Transactions on Signal Processing
Journal of Agricultural, Biological, and Environmental Statistics
Journal of Applied Statistics
Journal of Quality Technology
Journal of Statistical Computation and Simulation
Journal of Statistical Distributions and Applications
Journal of Statistical Theory and Practice
Journal of the American Statistical Association
Metrika
PLOS One
Research Policy
Sankhya B
Spatial Statistics
Statistics and Computing
Statistics and Its Interface
Statistics in Medicine
Statistical Papers
Statistica Sinica
Technometrics
TEST
The International Journal of Biostatistics
Conference Manuscript *RECOMB-Computational Proteomics 2011*

Book / Article Reviewer

2022 book proposal review for Chapman & Hall/CRC Press

2021 book review for Chapman & Hall/CRC Press

2020 book review for Chapman & Hall/CRC Press

2019 book proposal review for Chapman & Hall/CRC Press

2019 book review for Chapman & Hall/CRC Press

2018 book proposal review for Chapman & Hall/CRC Press

2012- *Mathematical Reviews*: 2 book reviews, 12 article reviews

Session Organizer/Chair

1. Organizer, Invited Session, "Advance in High-Dimensional Inference", the 8th EAC-ISBA, July 4-5, 2025, Kyungpook National University, Republic of Korea.
2. Organizer, Invited Session, "Advances in Bayesian Joint Modeling", the 7th EAC-ISBA, June 24-25, 2024 Hong Kong, China
3. Chair, Invited Session, "Diverse Data, Diverse Statsitical Models (I)", Pushing the Boundary of Data Science Through Statistical Modeling and Inference, Blacksburg, VA, July 13, 2023
4. Chair, Invited Session, "Current Bayesian Research in India", the 6th EAC-ISBA, July 8-9, 2022 (virtual)
5. Organizer and Chair, Invited Session, "Bayesian Hidden Markov Model and Its Applications ", the 6th EAC-ISBA, July 8-9, 2022 (virtual)
6. Organizer and Chair, Invited Session, "Flexible link functions in a joint hierarchical Gaussian process model", EcoSta 2022, June 4-6, 2022 (virtual)
7. Organizer and Chair, Invited Session, "Bayesian Modeling of Dependent Non-Gaussian Data", ICOSDA 2019, October 12, 2019, Grand Rapids, MI.
8. Organizer and Chair, Invited Session, "Bayesian Modeling of Complex Dependent Data", EAC-ISBA, July 14, 2019, Kobe, Japan.
9. Chair, Invited Session, International Conference on Bayesian Inference in Statistics and Statistical Genetics, August 2017, Houghton, MI
10. Chair, Invited Session, "Bayesian Approaches for Modeling Dynamic Non-Gaussian Responses," June 2014, Portland, OR
11. Chair/Organizer, "Discussion on Statistical Methods," the 6th International Statistics Forum at Renmin University of China, May 2014, Beijing, China
12. Chair, Topic-Contributed Session, "Recent Advances in Financial and Economic Statistics," JSM 2013, Montréal, Canada
13. Co-Organizer, Topic-Contributed Session, "Bayesian Modeling, Inference and Applications," JSM 2013, Montréal, Canada
14. Chair, Topic-Contributed Session, "Solving Non-standard Problems for National Surveys," JSM 2011, Miami, FL, USA
15. Organizer, Invited Session, "Statistics in Protein and Proteomics Data Analysis," ENAR Spring 2011, Miami, FL, USA
16. Organizer, Topic-Contributed Session, "Statistical Issues for Proteomics and Biomarker Discovery," JSM 2010, Vancouver, BC, Canada

University/College Service

Committee/Service

2024	Member, Taft Distinguished Professorship Selection Committee
2023-2024	Member, Taft Faculty Release Award Review / Taft Faculty Summer Fellowship Review
2019-2024	Member, Taft Executive Board
2021	Member, Taft ad hoc committee for faculty release compensation review
02/20/2019	Judge, the 2019 Graduate Student Expo
2018-2019	Faculty Mentor, Junior Faculty Mentoring Program
2016–2017	A&S Faculty Development Committee
2015 – 2017	Committee member, UC IT Governance's Research and Development subcommittee
04/2015	Project evaluator, 2015 URSC + PRaISE Conference

University Research Council

2012– 2016	Proposal Reviewer, URC Faculty Program
2015– 2017	Proposal Reviewer, URC Interdisciplinary Faculty Research Support Program
2016, 2018	Proposal Reviewer, URC Graduate Student Research Fellowship

Departmental Service

Exam Committees

	grading exams, and overall evaluation of the results
2019 - present	Chair/Committee member, statistical methods prelim exams
2013 - 2017	Committee member, linear model prelim exam
2012-August 2020, 2021-2022, 2025	Chair/Committee member, statistics qualifying exams
2012 - 2017	Chair/Committee member, oral exams (Master of Science in Statistics)

Graduate Advisor

2012 – present Graduate advisor for students in Statistics (32 students, starting year in the parenthesis)

Wu, Tzu-Chun (2012)	Xin, Yina (2012)	Zhan, Xingchen (2012)
Geise, Eric (2013)	Satterfield, Matthew (2013)	Sun, Luqian (2013)
Zhou, Wei (2013)	Chandrahasan, Nadarajah (2013)	Cheng, Si (2013)
Sun, Qianbo (2014)	Xu, Ruixuan (2014)	Li, Ran (2015)
Wang, Linna (2015)	Fu, Zuopeng (2015)	Wang, Siyuan (2015)
Lin, Chengguang (2016)	Yang, Fang (2016)	Zhou, Huifen (2016)
Zhou, Chen (2016)	Palipana, Anushka (2016)	Hu, Yiyan (2016)
Almomani, Ayat (2017)	Jea, Hyun Ju (2018)	Chatterjee, Neelakshi (2019)
Bracale, Christian (2019)	Reddick, Tim (2020)	Li, Hancheng (2021)
Mather, Logan (2021)	Wang, Shixuan (2022)	Pan, Weiqi (2023)
Ofosu, Alexander (2024)	Kropf, Jay (2026)	

Committees/Services

2025 - 2026	Member, Graduate Program Committee
2025	Member, Undergraduate Scholarship Committee
2024-2025	Chair, Hiring Committee for the tenure-track position in statistics
2024-2025	Committee Member, Department RPT Committee
2022-2023	Chair, Hiring Committee for the tenure-track position in statistics
2019 - present	Chair/Co-Chair, undergraduate statistics major subcommittee
2018	Committee member, preparing the proposal for the BS/BA degrees in statistics
2019 - 2021	Committee member, Graduate Student Evaluation Committee
2017	Grader, Math Bowl
2016 - 2017, 2021-2022	Committee member, Executive Committee
2013 - 2018	Committee member, Undergraduate Affairs Committee
2013, 2016, 2017	Committee member, Hiring Committee for the tenure-track position in statistics
2011	Committee member, teaching evaluation data collection/analysis/record
2012	Committee member, revising Master of Science Financial Mathematics Track
2013	Statistical analysis about Calculus 1
2014	Statistical analysis on AP Calculus scores for incoming undergraduate students for the Department of Mathematical Sciences