GUANYU HU

Email: huguanyu@msu.edu
Website: https://sites.google.com/site/nealguanyu/

EDUCATION

Florida State University *August 2014 - December 2017*
Department of Statistics
Ph.D. in Statistics
Advisor: Prof. F.W. Huffer
Thesis topic: Spatial Statistics and Its Applications in Biostatistics and Environmental Statistics

Florida State University *August 2014 - May 2016*
Department of Statistics
M.S. in Statistics

Zhongnan University of Economics and Law *September 2010 - June 2014*
The School of Statistics and Mathematics
B.E. in Statistics

PROFESSIONAL EXPERIENCE

Associate Professor *August 2025 -*
Michigan State University

Assistant Professor *September 2023 - August 2025*
The University of Texas Health Science Center at Houston

Assistant Professor *August 2020 - August 2023*
University of Missouri - Columbia

Postdoctoral Researcher *December 2017 - July 2020*
Supervisor: Prof. M-H Chen at University of Connecticut

RESEARCH INTERESTS

- **Statistical Theory & Methodologies**: Bayesian Nonparametric, Spatial Point Process, Bayesian Computation, Causal Inference, Big Data Inference, and Survival Analysis.
- **Statistical Applications**: Sports Analytics, Clinical Trials, Economics and Social Science, Environmental Statistics, and Educational and Psychological Measurement.

HONORS AND AWARDS

2022 Elected Member of the International Statistical Institute (ISI)

2021 IMS New Researcher Travel Award

2019 ICSA China Conference Junior Researcher Award

2019 Travel Support for ICOSDA

2019 Travel Support for NBER-NSF SBIES Conference

2018 JSM ENVR Distinguished Student Paper Award

2016 Outstanding Graduate Student Paper Award of IBS-China

2015, 2016 Scholarship of Florida-China Linkage Institute

2014 Excellent College Graduate in Zhongnan University of Economics and Law

2013 Third Prize, China University Mathematics Contest in Modeling

2013 Third Prize, Mathematical Modeling Contest of Central China

2013 National College Market Research Analysis Competition Award for Excellent Performance

2011, 2012, 2013 People Scholarship Third Award

FUNDING

Ongoing Grants

NSF DMS-2412923 Bayesian Learning for Spatial Point Processes: Theory, Methods, Computation, and Applications, Role: PI, $151,210, 08/01/2022 - 07/31/2025

NSF SES-24122922 Spatial Homogeneity Learning Models with Applications to Socioeconomic Problems, Role: PI (Co-PIs, Dr. Shujie Ma (UCR) and Dr. Sergio Rey (SDSU)), $500,000, 07/01/2023 - 06/30/2026

CPRIT RP-230036 Geospatial Approaches to Melanoma Early Detection - The GAMED Project, Role: Co-I (10% efforts) (PIs: Dr. Kelly C. Nelson (MD Anderson) and Dr. Cici Bauer (UTH)), $1,998,196, 09/01/2024-02/28/2028

Completed Grants

NSF BCS-2152822 Reconstructing the evolutionary history of languages from non-lexical data, Role: Co-PI (PI, Dr. Rebecca Grollemund), $420,183, 06/01/2022 - 05/31/2023

STUDENT ACHIEVEMENTS

Tianyu Pan

- IMS Hannan Graduate Student Travel Award
- IBM Student Research Award
- EAC-ISBA 2022 Best Poster Award

Yimeng Ren

- Best Paper Award of the 2021 International Workshop on Statistical Theory and Related Fields

Xiyuan Gao

- ICSA Applied Statistics Symposium Student Paper Award

REFEREED PUBLICATIONS

$+$ indicates student author, $*$ indicates corresponding author

STATISTICAL THEORY & METHODOLOGIES

1. Meng, J.$^{+}$, Ren, Y.$^{+}$, Zhu, X., **Hu, G.***. (In press) Bayesian Spatially Clustered Compositional Regression: Linking intersectoral GDP contributions to Gini Coefficients. *Journal of Computational and Graphical Statistics*
2. **Hu, G.**, Chen, M-H., Ma, Z.. (2025) Flexible Bayesian Spatial Modeling for Unknown Missing Data Mechanism in Survey Analysis: an Application to the Chinese General Society Survey. *Annals of Applied Statistics*, 19(2): 1714-1733

3. Zhu, B., **Hu, G.**, Xu, L., Fan, X., Li, Q.. (2025) Bayesian nonparametric clustering with feature selection for spatially resolved transcriptomics data. *Annals of Applied Statistics*, 19(2): 1028-1047

4. Grieshop, N.$^+$, Feng, Y.$^+$, **Hu, G.**, Schweinberger, M.. (2025) A Continuous Time Stochastic Process for High-Resolution Network Data in Sports. *Statistica Sinica*, 35, 1899-1916.

5. Yang, H-C., **Hu, G.**. (2025) Bayesian Spatial Cluster Signal Learning with Application to Adverse Event. *Journal of Biopharmaceutical Statistics*, 35(3), 373-385.

6. Gao, X.+, Wang, J., **Hu, G.**, Sun, J.. (2025) Functional Causal Inference with Time-to-Event Data *Statistics in Bioscience*, 17(2), 297-319.

   - An earlier version received the 2023 ICSA Applied Symposium Student Paper Award

7. Qi, K., **Hu, G.***, Wu, W.. (2024) Are Made and Missed Different? An analysis of Field Goal Attempts of Professional Basketball Players via Depth Based Testing Procedure. *Annals of Applied Statistics*, 18(3): 2615-2634.

8. Pan, T.$^+$, Shen, W., Davis-Stober, C. P., **Hu, G.***. (2024) A Bayesian nonparametric approach for handling item and examinee heterogeneity in assessment data. *British Journal of Mathematical and Statistical Psychology*, 77, 196-211.

9. Ren, Y.$^+$, Zhu, X., Lv, X., **Hu, G.**. (2024) Graphical Assistant Grouped Network Autoregression Model: a Bayesian Nonparametric Recourse. *Journal of Business and Economics Statistics*, 42:1, 49-63.

   - An earlier version received the 2021 International Workshop on Statistical Theory and Related Fields Best Paper Award

10. Pan, T.$^+$, **Hu, G.**, Shen, W.. (2024) Clustering spatial functional data using a geographically weighted Dirichlet Process, *Canadian Journal of Statistics*, 52 (3), 696-712.

11. Mu, Y.$^+$, Wu, W., **Hu, G.**. (2024) Model-Based Statistical Depth for Bivariate Functional Data. *Statistics and its Interface*, 17 (2), 305-316.

12. **Hu, G.**, Geng, J., Xue, Y., Sang, H. (2023) Bayesian Spatial Homogeneity Pursuit of Functional Data: an Application to the U.S. Income Distribution. *Bayesian Analysis*, 18 (2), 579-605.

13. Yin, F., **Hu, G.**, Shen, W.. (2023) Analysis of professional basketball field goal attempts via a Bayesian matrix clustering approach. *Journal of Computational and Graphical Statistics*, 32 (1), 49-60.

    - An earlier version received the 2021 IMS New Researcher Award

14. Pan, T.$^+$, Shen, W., **Hu, G.**. (2023) Identifying latent groups in spatial panel data using a Markov random field constrained product partition model, *Statistica Sinica*, 33, 2281-2304.

    - An earlier version received the 2021 IMS Hannan Graduate Travel Award
    - An earlier version received the 2021 IBM Student Research Award

15. **Hu, G.**, Ma, Z., Paek, I.. (In Press) A Nonparametric Bayesian Item Response Modeling Approach for Clustering both Item and Persons Simultaneously. *Journal of Nonparametric Statistics*

16. **Hu, G.**, Xue, Y., Ma, Z.. (In Press) Are Intersectoral GDP Contributions Similar with Nearby States? A Semi-Model Based Spatial Cluster Analysis. *Applied Economics*

17. **Hu, G.**, Yang, H-C., Xue, Y., Dey, D.K.. (2023) Zero Inflated Poisson Model with Clustered Regression Coefficients: an Application to Heterogeneity Learning of Field Goal Attempts of Professional Basketball Players. *Canadian Journal of Statistics*, 51 (1), 157-172.

18. Zhao, P.$^+$, Yang, H-C.$^+$, Dey, D.K., **Hu, G.**. (2023) Bayesian Spatial Homogeneity Pursuit Regression for Count Value Data. *Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining. 2023*, 3504-3512.

19. **Hu, G.***, Chen, M-H., Ravishanker, N. (2023) Bayesian Analysis of Spherically Parameterized Dynamic Multivariate Stochastic Volatility Models. *Computational Statistics*, 38 (2), 845-869.

20. Wong-Toi, E.$^+$, Yang, H-C., Shen, W., **Hu, G.***. (2023) A Joint Analysis for Field Goal Attempts and Percentages of Professional Basketball Players: Bayesian Nonparametric Resource. *Journal of Data Science*, 21(1), 68-86.

21. Liu, Q.$^+$, **Hu, G.***, Wang, S., Ye, B., Wu, Y.. (2023) Sample Size Re-estimation Design in Phase II Dose Finding Study with Multiple Dose Groups: Conditional power vs. Bayesian predictive power. *Pharmaceutical Statistics*, 22 (2), 349-364.

22. Cheng, A.$^+$, **Hu, G.**, Li, W.. (2023) Benchmarking clustering methods for spatially resolved transcriptomics data. *Briefings in Bioinformatics*, 24 (1), bbac475.

23. Yin, F., Jiao, J., Yan, J., **Hu, G.***. (2022) Bayesian Nonparametric Estimation for Point Processes with Spatial Homogeneity: A Spatial Analysis of NBA Shot Locations. *Proceedings of the 39th International Conference on Machine Learning (ICML)*, 25523-25551.

24. Geng, L.$^+$, **Hu, G.**. (2022) Bayesian Spatial Homogeneity Pursuit for Survival Data with Application to the SEER Respiration Cancer Data. *Biometrics*, 78 (2), 536-547.

25. Yang, H-C.$^+$, Geng, L.$^+$, Xue, Y.$^+$, **Hu, G.**. (2022) Spatial Weibull Regression with Multivariate Log Gamma Process and its Applications in China Earthquake Economic Loss. *Statistics and its Interface*, 15 (1), 29 - 38.

26. Zhao, P., **Hu, G.**. (2021) Approximate Bayesian Estimation with Subsampled Logistic Regression in Big Data Settings. *2021 IEEE International Conference on Big Data (Big Data)*, 2021, pp. 58-64.

27. **Hu, G.**, Xue, Y., Ma, Z.. (2021) Bayesian Clustered Coefficients Regression with Auxiliary Covariates Assistant Random Effects. *Statistical Modeling*, 23 (3), 273-293.

28. Jiao, J.$^+$, **Hu, G.**, Yan, J.. (2021) Heterogeneity Pursuit for Spatial Point Process with Applications: A Bayesian Semiparametric Recourse. *Environmentrics*, 32 (7), e2694.

29. Geng, J., Shi, W.$^+$, **Hu, G.***. (2021) Bayesian Nonparametric Nonhomogeneous Poisson Process with Applications. *Spatial Statistics*, 41, 100495.

    - An earlier version received the 2019 ICSA China Conference Junior Researcher Award

30. Jiao, J.$^+$, **Hu, G.**, Yan, J.. (2021) A Bayesian Joint Model of Marked Spatial Point Process with Applications to Basketball Shot Chart. *Journal of Quantitative Analysis in Sports*, 17 (2), 77-90.

    - Editors Choice free access article

31. Mu, J.$^+$, Liu, Q.$^+$, Kuo, L., **Hu, G.**. (2021) Bayesian Variable Selection for Cox Regression Model with Spatially Varying Coefficients with Applications to Louisiana Respiratory Cancer Data. *Biometrical Journal*, 63 (8), 1607-1622.

32. **Hu, G.***, Geng, J.. (2021) Heterogeneity Learning for SIRS model: an Application to the COVID-19. *Statistics and Its Interface*, 14 (1), 73-81.

33. **Hu, G.***. (2021) Spatially Varying Sparsity in Dynamic Regression Models. *Econometrics and Statistics*, 17, 23-34.

34. Ma, Z.$^+$, **Hu, G.***, Chen, M-H.. (2021) Bayesian Hierarchical Spatial Regression Models for Spatial Data in the Presence of Missing Covariates with Applications. *Applied Stochastic Models in Business and Industry*, 37 (2), 342-359.

35. **Hu, G.**, Xue, Y.$^+$, Huffer, F.. (2021) Bayesian Parametric Accelerated Failure Time Model with Spatially Varying Coefficients. *Sankhyā Series B*, 83 (2), 541-557.

36. Xue, Y.$^+$, **Hu, G.***. (2021) Online Updating of Information Based Model Selection in the Big Data Setting. *Communications in Statistics - Simulation and Computation*, 50:11, 3516-3529.

37. **Hu, G.**, Yang, H-C., Xue, Y.. (2020) Bayesian Group Learning for Shot Selection of Professional Basketball Players. *Stat*, 10 (1), e324.

38. **Hu, G.***, Wang, H.. (2020) Most Likely Optimal Subsampled Markov Chain Monte Carlo. *Journal of Systems Science and Complexity*, 34 (3), 1121-1134.

39. Ma, Z.$^{+}$, Xue, Y.$^{+}$, **Hu, G.**. (2020) Heterogeneous Regression Models for Clusters of Spatial Dependent Data. *Spatial Economics Analysis,* 15-4, 459-475.

40. Xue, Y.$^{+}$, Schifano, E.D., **Hu, G.***. (2020) Geographically Weighted Cox Regression and Its Application to Prostate Cancer Survival Data in Louisiana. *Geographical Analysis,* 52-4, 570-587.

41. **Hu, G.***, Huffer, F. (2020). Modified Kaplan–Meier Estimator and Nelson–Aalen Estimator with Geographical Weighting for Survival Data. *Geographical Analysis*, 52-1, 28-48.

    - An earlier version received the Outstanding Graduate Student Paper Award of IBS-China

42. Geng, L.$^{+}$, Xue, Y.$^{+}$, **Hu, G.**. (2019) Subsampled Information Criterion for Bayesian Model Selection in Big Data Setting. *2019 IEEE International Conference on Big Data (Big Data)*, 194-199.

43. Liu, Y.$^{+}$, **Hu, G.**, Cao, L., Wang, X., Chen, M-H. (2019). A Comparison of Monte Carlo Methods for Computing Marginal Likelihoods of Item Response Theory Models. (with discussion) *Journal of the Korean Statistical Society*, 48, 503-512 *Rejoinder:* 522-523

44. **Hu, G.***, Bradley, J.. (2018) A Bayesian Spatial-Temporal Model with Latent Multivariate Log-gamma Random Effects with Application to Earthquake Magnitudes. *Stat.* **7**(1): e179.

    - An earlier version received the JSM 2018 ENVR Distinguished Student Paper Award
    - Most download Paper in Stat on 2018

    STATISTICAL APPLICATIONS

45. Yang, H-C., Xue, Y., Pan, Y., Liu, Q., **Hu, G.***. (2023) Time Fused Coefficient SIR Model with Application to COVID-19 Epidemic in the United States *Journal of Applied Statistics*, 50:11-12, 2373-2387.

46. Ma, Z.$^{+}$, Xue, Y.$^{+}$, **Hu, G.**. (2021) Geographically Weighted Regression Analysis for Spatial Economics Data: a Bayesian Recourse. *International Regional Science Review*, 44 (5), 582-604.

47. Ma, Z.$^{+}$, Xue, Y.$^{+}$, **Hu, G.***. (2019) Nonparametric Analysis of Income Distributions among Different Regions Based on Energy Distance with Applications to China Health and Nutrition Survey Data *Communications for Statistical Applications and Methods*, 26 (1), 57-67.

48. Yang, H-C.$^{+}$, **Hu, G.***, Chen, M-H.. (2019) Bayesian Variable Selection for Pareto Regression Models with Latent Multivariate Log Gamma Process with Applications to Earthquake Magnitudes *Geosciences*, 9(4), 169.

    BOOK CHAPTER, EDITORIAL, WORKSHOP & DISCUSSIONS

49. **Hu, G.**, Xue, Y., Shen, W.. (2025) Multidimensional heterogeneity learning for count value tensor data with applications to field goal attempt analysis of NBA players. *ECML/PKDD Workshop on Machine Learning and Data Mining for Sports Analytics*

50. Zhao, P.$^{+}$, Yang, H-C.$^{+}$, Dey, D.K., **Hu, G.**. (2023) Bayesian Spatial Homogeneity Pursuit Regression for Count Value Data. *NeurIPS Workshop on Gaussian Processes, Spatiotemporal Modeling, and Decision-making Systems*

51. Zhao, P., Yang, H-C., **Hu, G.**. (2021) Discussion of "Multilevel Linear Models, Gibbs Samplers and Multigrid Decompositions" *Bayesian Analysis*

52. Xue, Y., Yang, H-C., Pan, Y., **Hu, G.***. (2021) Discussion of "Evaluate the risk of resumption of business for the states of New York, New Jersey and Connecticut via a pre-symptomatic and asymptomatic transmission model of COVID-19" *Journal of Data Science*

53. Xue, Y.$^{+}$, Schifano, E.D., **Hu, G.***. (2021) Online Updating of Nonparametric Survival Estimator and Nonparametric Survival Test. *Book Chapter in Springer Book "Modern Statistical Methods for Health Research"*

54. Editorial: Special issue on statistical learning of tensor data *Statistics and its Interface*

SUBMITTED PAPERS

Under Revision

Price, K.$^{+}$, Cai, H., Shen, W., **Hu, G.***. How much does Home Field Advantage matter in Soccer Games? A causal inference approach for English Premier League analysis. *Under Revision in Annals of Applied Statistics*

Ray, I., Sang, H., Lu, L., Hu, G.. Nonparametric Density Estimation using Manifold-Aware Bayesian Additive Models Under Revision in Computational Statistics and Data Analysis

Wen, W.$^{+}$, Chen, Z., **Hu, G.***. Ordinal Graphical Models via a Bayesian Nonparametric Clustering Approach

Cao, J.$^{+}$, Zhang, K.$^{+}$, **Hu, G.**, Nelson, K., Bauer, C.. Bayesian Spatio-temporal Small Area Modeling: A Case Study Investigating the Late-Stage Melanoma Incidence in Texas Under Revision in Journal of Royal Statistics Society Series C

Under Review

Geng, J., **Hu, G.***. Mixture of Finite Mixtures Model for Basket Trial

Qi, M.$^{+}$, **Hu, G.**, Cai, H., Shen, W.. Dynamic Non-stationary Local M-Estimators for Structure Learning: A Causal Discovery of Time-Varying Home Advantage

Zhu, B., **Hu, G.**, Fan, X., Li, Q.. Generalized Bayesian nonparametric clustering framework for high-dimensional spatial omics data

Xu, A.$^{+}$, Ma, Z., **Hu, G.**, Zhang, Y.. Using Dynamic Item Response Theory to Model Ability Development in Online Learning

Hu, G., Yang, M., Zhu, W.. Bayesian Joint Estimation and Clustering of Lorenz Curves with Spatial Constraint

Kong, Z., Troyka, M., Ha-Brookshire, J., Bell, D., Boyer, E., Davis-Stober, C. P., Lisa Y. Flores, L., Harrison, S., Hermsen, J., Hoffman, H., Holan, S., Hood, A., Horstman, H., **Hu, G.**, Reeder, L., Socarides, A.. Enablers, Consequences, and Potential Solutions for Faculty's Invisible Labor: A Systematic Literature Review

Yang, H-C., Li, H., Li, Q., **Hu, G.***. Bayesian Subgroup Learning of Spatially Resolved Transcriptomics Data

Cao, J.$^{+}$, Yang, H-C., **Hu, G.***. How do the professional players select their shot locations? An analysis of Field Goal Attempts via Bayesian Additive Regression Trees

Cao, J.$^{+}$, Cai, Q., Waller, L.A., Hickson, D.A., **Hu, G.***, Kang, J.. What Influences the Field Goal Attempts of Professional Players? Analysis of Basketball Shot Charts via Log Gaussian Cox Processes with Spatially Varying Coefficients

PRESENTATIONS

INVITED SEMINAR

Department of Mangement Science and Statistics UTSA *Febuary 2025 San Antonio*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

Department of Statistics and Probability Michigan State University *Febuary 2025 East Lansing*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

Department of Statistics and National University of Singapore *March 2024 Singapore*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

School of Mathematics and Statistics Northeast Normal University *March 2024 Changchun, China*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

School of Mathematics and Statistics Changchun University of Technology *March 2024 Changchun, China*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

Department of Biostatistics City University of Hong Kong *Janaury 2024 Hong Kong*
Bayesian nonparametric clustering with feature selection for spatially resolved transcriptomics data

School of Statistics East China Normal University *December 2023 Shanghai, China*
What Could Statistics Offer for Sports Analytics?

School of Mathematics and Statistics Hunan Normal University *December 2023 Changsha, China*
What Could Statistics Offer for Sports Analytics?

School of Big Data Renmin University of China *June 2022 Beijing, China*
What Could Statistics Offer for Sports Analytics?

School of Statistics Beijing Normal University *June 2022 Beijing, China*
What Could Statistics Offer for Sports Analytics?

School of Statistics and Mathematics Zhongnan University of Economics and Law *June 2022 Wuhan, China*
What Could Statistics Offer for Sports Analytics?

School of Big Data Fudan University *April 2023 Shanghai, China*
What Could Statistics Offer for Sports Analytics?

Department of Statistics The Chinese University of Hong Kong *March 2023 HongKong*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

Department of Statistics and Actuarial Science University of Iowa *November 2022 Virtual*
Spatial Homogeneity Learning via Nonparametric Bayesian Methods

Department of Mathematics University of Houston *November 2022*
What Could Nonparametric Bayesian Methods Offer for Sports Analytics?

Department of Mathematics and Statistics University of Texas Dallas *February 2022*
Bayesian Heterogeneity Learning for Shot Selection of Professional Basketball Players

Department of Management and Statistics UTSA *October 2021 Virtual*
Bayesian Heterogeneity Learning for Shot Selection of Professional Basketball Players

CluBear *September 2020 Virtual*
Bayesian Heterogeneity Learning for Shot Selection of Professional Basketball Players

Department of Mathematics Nanjing University *December 2019, Nanjing, China*
Bayesian Spatial Homogeneity Pursuit Regression for Count Value Data

Department of Biostatistics Shanghai Jiaotong University *December 2019, Shanghai, China*
Bayesian Spatial Homogeneity Pursuit of Functional Data: an Application to the U.S. Income Distribution

Joint UCONN/UMASS Statistics Colloquium *October 2019, Amherst, MA*
Bayesian Spatial Homogeneity Pursuit of Functional Data: an Application to the U.S. Income Distribution

Department of Statistics Hunan University *December 2018 Changsha, China*
Modified Kaplan-Meier Estimator and Nelson-Aalen Estimator with Geographical Weighting for Survival Data

Department of Mathematics Foshan University *December 2018 Foshan, China*
A Bayesian Spatial-temporal Model with Latent Multivariate Log-gamma Random Effects with Application to Earthquake Magnitudes

Boehringer Ingelheim China *June 2018 Shanghai, China*
Modified Kaplan-Meier Estimator and Nelson-Aalen Estimator with Geographical Weighting for Survival Data

INVITED CONFERENCE PRESENTATION

ASA FL Chapter Meeting *March 2024 Tallahassee, FL*
Invited Session, *Bayesian nonparametric clustering with feature selection for spatially resolved transcriptomics data*

JSM 2023 *August 2023 Toronto, Canada*
Invited Session, *How much does Home Field Advantage matter in Soccer Games?*

The 12th ICSA International Conference *July 2023 HongKong*
Invited Session, *How much does Home Field Advantage matter in Soccer Games?*

ICSA 2023 China Conference *June 2023 Chengdu, China*
Invited Session, *Biclustering via Averaged Mixture of Finite Mixtures*

Texas A&M NSF TRIPODS FIDS Institute Annual Data Science Conference *October 2022 College Station, TX*
Invited Session, *Bayesian Nonparametric Learning for Spatial Point Pattern Data*

ENVR 2022 Workshop *October 2022 Provo, UT*
Invited Session, *Bayesian Nonparametric Learning for Spatial Point Pattern Data*

2022 NBER-NSF SBIES Conference *August 2022 St Louis, MO*
Invited Session, *Graphical Assistant Grouped Network Autoregression Model*

JSM 2022 *August 2022 Washinton D.C*
Invited Session, *Bayesian Nonparametric Learning for Spatial Point Pattern Data*

The 2022 ICSA China Conference *July 2022 Xi'An, China*
Invited Session, *Bayesian Nonparametric Learning for Shooting Patterns of Professional Basketball Players*

The 2022 ISBA World Meeting *June 2022 Montreal, Canada*
Invited Session, *Bayesian Nonparametric Learning for Shooting Patterns of Professional Basketball Players*

The 2021 EAC-ISBA Meeting *November 2021 Virtual*
Invited Session, *Spatial Homogeneity Regression: a Bayesian Nonparametric Recouse*

2021 ICSA Applied Statistics Symposium *September 2021 Virtual*
Invited Session, *Spatial Homogeneity Regression: a Bayesian Nonparametric Recouse*

JSM 2021 *August 2021 Virtual*
Invited Session, *Bayesian Heterogeneity Learning for Shot Selection of Professional Basketball Players*

The 2021 ISBA World Meeting *June 2021 Virtual*
Invited Session, *Bayesian Spatial Homogeneity Pursuit of Functional Data: an Application to the U.S. Income Distribution*

CMStatistics 2020 *December 2020 Virtual*
Invited Session, *Analysis of professional basketball field goal attempts via a Bayesian matrix clustering approach*

The 11th ICSA International Conference *December 2019 Hangzhou, China*
Invited Session, *Spatial Homogeneity Pursuit Regression for Count Value Data*

CMStatistics 2019 *December 2019 London, UK*
Invited Session, *Spatial Homogeneity Pursuit Regression for Count Value Data*

Florida State University Spatio-Temporal Reading Group *October 2019*
Invited Seminar, *Bayesian Spatial Homogeneity Pursuit of Functional Data: an Application to the U.S. Income Distribution*

ICOSDA 2019 *October 2019 Grand Rapids, MI*
Invited Session, *A Bayesian Joint Model for Spatial Point Process with Application to Basketball Shot Chart*

2019 EAC-ISBA *July 2019 Kobe, Japan*
Invited Session, *A Bayesian Joint Model for Spatial Point Process with Application to Basketball Shot Chart*

2019 ICSA-China *July 2019 Tianjin, China*
Invited Session Junior Researcher Award, *Bayesian Nonparametric Nonhomogeneous Poisson Process with Applications to USGS Earthquake Data*

2019 EcoSta *June 2019 Taichung, Taiwan*
EAC-ISBA Invited Session, *Bayesian Nonparametric Nonhomogeneous Poisson Process with Applications to USGS Earthquake Data*

2019 Conference on Lifetime Data Science *May 2019 Pittsburgh, PA*
Invited Session, *Bayesian Variable Selection for Cox Regression Model with Spatially Varying Coefficients with Applications to Louisiana Respiratory Cancer Data*

2019 New England Statistics Symposium *May 2019 Hartford, CT*,
Invited Session, *New Development of Bayesian Variable Selection Criteria for Spatial Point Process with Applications*

60th Anniversary of the Department of Statistics Florida State University *April 2019 Tallahassee, FL*
Invited Talk, *Bayesian Subsampled Computation and Model Selection*

2018 EcoSta *June 2018 HongKong, China*
Invited Session, *A Bayesian Spatial-temporal Model with Latent Multivariate Log-gamma Random Effects with Application to Earthquake Magnitudes*

WORKSHOP AND TUTORIAL

University of Connecticut *April 2019 Storrs, CT*
Short Course of Spatial-Temporal Data for the Undergraduates

Zhongnan University of Economics and Law *December 2019 Wuhan, China*
Short Course of Bayesian Econometrics Methods for Master and Doctor Students

Boehringer Ingelheim China *December 2018 Shanghai, China*
Tutorial of Spatial Survival Analysis

CONTRIBUTED TALK AND POSTER

2020 NBER-NSF SBIES Conference *August 2020 Virtual*
Topic-Contributed Session, *Bayesian Spatial Homogeneity Pursuit of Functional Data: An Application to the U.S. Income Distribution*

2019 JSM *July 2019 Denver, CO*
Topic-Contributed Session, *Bayesian Subsampled Computation and Model Selection*

2018 JSM *August 2018 Vancouver, Canada*
Topic-Contributed Student Paper Award Session, *A Bayesian Spatial-temporal Model with Latent Multivariate Log-gamma Random Effects with Application to Earthquake Magnitudes*

2018 ENAR Spring Meeting *March 2018 Atlanta, GA*
Poster Session, *Bayesian Covariance Regression Analysis*

2017 ENAR Spring Meeting *March 2017 Washington DC*
Contributed Session, *Bayesian Accelerated Failure Time Model with Spatially Varying Coefficients*

4th IBS-China Conference *July 2016 Shanghai, China*
Best Graduate Students Paper Award

4th IMS-APRM *June 2016 Hongkong, China*
Contributed Session, *Modified Kaplan-Meier Estimator and Nelson-Aalen Estimator with Geographical Weighting for Survival Data*

The 24th International Workshop on Matrices and Statistics *May 2015 Haikou, China*
Contributed Session, *A Comparison of Face Recognition Algorithm*

2015 Annual Meeting FL chapter of ASA *February 2015 Tampa, FL*
Student Paper Session, *A Comparison of Face Recognition Algorithm*

STUDENTS

PhD Students:

- Tianyu Pan (2020-2023) (with Weining Shen from UCI): Bayesian model selection through averaging: applications and theory. Current job: Postdoctoral Researcher at Stanford University
- Jingwen Deng (2023 -): Spatial homogeneity learning models via geographically adaptive concave penalty
- Zixi Wang (2023 -): Bayesian spatial and spatio-temporal methods for diease mapping

Master Students:

- David Reynolds, M.A., 2021: Joint Model for Marked Spatial Point Process with Applications
- Katherine Price, M.A., 2022: Causal Inference of Home Field Advantages in Soccer Games: an Application to England Premier League
- Niklas Augustin, M.A., 2023: Bayesian Multivariate Stochastic Volatility Model with Unknown Number of Changes of the Correlation

Master Committees: Caleb Frerking (Statistics, 2020), Yiheng Zhao (Strategic Communication, 2021), Jonathan Greenland-White (Statistics, 2023)

Doctor Committees: Wei Zhao (Economics, 2022), Tian Tian (Statistics, 2022), Xiyuan Gao (Statistics, 2023), Ranadeep Daw (Statistics, 2023), Nicholas Grieshop (Statistics, 2023), Seon Yong Kim (Economics, 2024)

TEACHING EXPERIENCES

The University of Texas Health Science Center at Houston, Instructor *Houston, TX*

PH 1830 Categorical Data Analysis

PH 1920 Large Sample Theory

University of Missouri - Columbia, Instructor *Columbia, MO*

STAT 7870 Time Series Analysis

STAT 7750 Introduction to Probability Theory

STAT 8710 Intermediate Mathematical Statistics I

STAT 9640 Bayesian Analysis II

University of Connecticut, Final Projects Mentor *Fall 2018, Storrs, CT*

Course Projects Mentor for STA 5361 Statistical Computing

University of Connecticut, Teaching Assistant *August 2018, Storrs, CT*

Teaching Assistant for UConn Statistics Biopharmaceutical Summer Academy

Florida State University, Teaching Assistant *August 2016 - May 2017, Tallahassee, FL*

Teaching Assistant for CGS2518 (Spreadsheets for Business)

Gters Education, Senior Trainer *May 2016 - August 2016, May 2017 - August 2017, Wuhan, China*

Developed AP Statistics and Calculus Courses and ACT Science course and Training new teachers

Feidu Education, Lecturer *September 2013 - July 2014, Wuhan, China*

Taught SAT math, AP Statistics, Calculus, Economics and ACT Science

ACADEMIC SERVICE

Professional Activities

- Chair-Elect 2023 for the ASA Statistics in Sports Section
- Program Committee Chair of EAC-ISBA
- Poster Committee of ICSA China Conference 2023
- Program Committee of ICSA China Conference 2022, 2024
- Program Committee of NESS 2022, 2023
- Student Paper Award Committee of SBSS 2022, 2023
- USCAS 2021 Poster Review Committee
- Student Paper Award Committee of NESS 2018, 2019, 2022, 2023

Editorial Service

- Associate Editor of Biometrics
- Associate Editor of Annals of Applied Statistics
- Associate Editor of Journal of Quantitative Analysis in Sports
- Associate Editor of Statistics and its Interface
- Associate Editor of Environmental and Ecological Statistics
- Associate Editor of The New England Journal of Statistics in Data Science

· Guest Editor of Statistics and Its Interface (SII) for a special issue on statistical learning of tensor data

University of Missouri - Columbia

· Co-Director of Sports Statistics Certificate Program, Department of Statistics 2022-2023
· Sectary of the Faculty, Department of Statistics 2020-2021
· Sports Statistics Masters Development Committee, Department of Statistics 2020, 2021, 2022
· Qualify Exam Committee, Department of Statistics 2021, 2022
· Tenure-Track Faculty Search Committee, Department of Statistics 2021
· Graduate Student Admission Committee, Department of Statistics 2021, 2022

Journal Referee

· Journal of the American Statistical Association (13)
· Biometrics (5)
· British Journal of Mathematical and Statistical Psychology (3)
· Journal of Computational and Graphical Statistics (2)
· Journal of Business and Economics Statistics (2)
· The American Statistician (1)
· Journal of the Royal Statistical Society: Series C (5)
· Journal of Quantitative Analysis in Sports (1)
· Electronic Journal of Statistics (1)
· Technometrics (1)
· Journal of Educational and Behavioral Statistics (1)
· Applied Economics (1)
· Sports Medicine (1)
· Statistics and Computing (1)
· Bayesian Analysis (1)
· Annals of Applied Statistics (1)
· Journal of Applied Statistics (1)
· Computational Statistics and Data Analysis (2)
· Statistics and Its Interface (1)
· Journal of Biopharmaceutical Statistics (1)
· Environmental and Ecological Statistics (3)
· International Statistical Review (1)
· Journal of Data Science (1)
· Sankhyā (1)
· Computational Statistics (1)
· Statistical Modeling (1)
· Journal of Multivariate Analysis (1)
· IEEE Transactions on Systems, Man and Cybernetics (1)
· International Journal of Sports Science & Coaching (1)
· ICML 2022 (4)

Session Organizer

· ICSA China 2019, *Tianjin, China*, *Recent Statistical Methods for Financial Data*
· EcoSta 2019, *Taichung, Taiwan*, *Bayesian Methods for Large Complex Data*
· ISBA-EAC 2019, *Kobe, Japan*, *New Advance in Bayesian Theorem and Nonparametric Bayesian Methods*
· NESS 2019, *Hartford, CT*, *New Advances in Network Data Analysis*
· CMStatistics 2019, *London, UK*, *New Advances in Nonparametric Bayesian methods*
· The 11th ICSA International Conference 2019, *Hangzhou, China*, *New Advances in Bayesian Approach for Complex Data*
· ICSA Applied Statistics Symposium 2020, *Houston, TX Bayesian Additive Regression Tree: Theory, Computation, and Application*
· ISBA World Meeting 2021, *Virtual*, *New Developments of Bayesian Methods for Spatial Data*

- JSM 2021, *Seattle, WA Bayesian Meets Basketball*
- ICSA Applied Statistics Symposium 2022, *Gainesville, FL Recent Developments of Causal Inference*
- ISBA World Meeting 2022, *Montreal, Canada*, *Bayesian methods for complex dependent data with application to education and psychology*
- ICSA International Conference 2023, *HongKong*, *Bayesian Spatial Model: Theory, Method, and Application*
- ICSA China Conference 2023, *Chengdu, China*, *Recent Developments of Statistical Methods in Biostatistics*
- JSM 2023, *Toronto, Canada*, *What could Causal Inference Offer for Sports Analytics*

Other Services

- Session Chairs for ICSA, JSM, ISBA
- Volunteer Committee of Stat4Onc 2019
- Organizing Committee of UConn Statistics Biopharmaceutical Summer Academy

CONSULTING SERVICE

Statistical Analysis for Beijing Pitapat Media company	*January 2015 - May 2015*
Market Research Analysis for Wuhan Yindu Cultural Media Co Ltd	*March 2015 - July 2015*
UConn Utilities Services & Energy Management	*January 2018 - July 2020*

PROFESSIONAL MEMBERSHIPS

Member, American Statistical Association (ASA)	*2014 - Present*
Member, Mu Sigma Rho National Statistics Honer Society	*2015 - Present*
Member, Institute of Mathematical Statistics	*2015 - Present*
Member, International Biometric Society	*2015 - Present*
Member, International Society for Bayesian Analysis	*2018 - Present*
Member, New England Statistical Society	*2018 - Present*

TECHNICAL STRENGTHS

Statistics Software	Matlab, R, Julia
Programming	C, C++, Pascal

REFERENCES

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