

Yang Ni – Curriculum Vitae

Associate Professor
Department of Statistics
Texas A&M University
BLOC 458E, 3143 TAMU
College Station, TX 77843-3143
<https://nystat.github.io/yni/>
yni@stat.tamu.edu

Research Interests

Methods Causal Discovery, Graphical Models, Bayesian Nonparametrics

Science Single-Cell Multi-Omics, Microbiome Multi-Omics, Electronic Health Records, Psychometrics

Education

2012-2015 PhD in Statistics - Rice University

Academic Positions

2023-present Associate Professor - Department of Statistics, Texas A&M University

2018-2023 Assistant Professor - Department of Statistics, Texas A&M University

2023-present Co-Director - Single Cell Data Science Core, Texas A&M University

2019-present Research Affiliate - Texas A&M Institute of Data Science (TAMIDS)

2019-present Co-Director - Center for Statistical Bioinformatics, Texas A&M University

2016-2018 Postdoctoral Fellow - The University of Texas at Austin

Editorial Board

2021-present Associate Editor - Journal of the American Statistical Association

2021-present Associate Editor - The American Statistician

2023 Area Chair - The 14th ACM-BCB

Current Grants

2023-2028 **CPRIT RP230204 (Co-Director of the Single Cell Data Science Core, Co-I)**
Gene-Environment-Lifestyle Interactions in Cancer
Total Award Amount: \$5,998,422
Effort: 10%

05/2023-04/2024 **NSF DMS-2227849 (PI)**
CBMS Conference: Foundations of Causal Graphical Models and Structure
Discovery – Texas A&M University, May 15-19, 2023
Total Award Amount: \$40,274
Effort: 4%

- 09/2022-08/2026** **1R01GM148974-01 (PI)**
 Bayesian Differential Causal Network and Clustering Methods for Single-Cell Data
 Total Award Amount: \$1,199,899
 Effort: 21%
- 06/2022-04/2027** **1R01MH128085-01 (Co-I)**
 Bayesian Methods for Optimizing Combination Antiretroviral Therapy for Mental Health in People with HIV
 Total Award Amount: \$2,013,161
 Effort: 15%
- 07/2021-06/2024** **NSF DMS-2112943 (PI)**
 Automated Causal Discovery with Observational Data via Directed Graphical Models — New Theory and Methods
 Total Award Amount: \$179,960
 Effort: 8%
- 09/2021-07/2023** **1R03MH127298-01 (Co-I)**
 Body Iron and Mental Health-Related Outcome in Adolescents: A NHANES Data Analysis
 Total Award Amount: \$91,243
 Effort: 4%
- 09/2022-08/2027** **1R25LM014219-01 (Co-I)**
 The Biomedical Informatics and Behavioral Sciences (BIBS) Summer Research Program
 Total Award Amount: \$649,830
 Effort: 4%

Completed Grants

- 06/2022-05/2023** **Seed Grant Program for Promoting Research Collaborations (PI)**
 Type II: Pursuing Interdisciplinary Research in Liberal Arts and Science — New Statistical Methods for Addressing Social Inequality
- 01/2021-12/2022** **Texas A&M Triads for Transformation (PI)**
 Causal Graphical Models For Microbial Community Coalescence
- 07/2019-06/2022** **NSF DMS-1918851 (PI)**
 Collaborative Research: New Bayesian Methods for Modeling the Effect of Antiretroviral Drugs on Depressive Symptomatology in HIV Patients
- 06/2020-05/2022** **TAMIDS Postdoctoral Project Program (PI)**
 Studying Microbial Interactions and Host Heterogeneity via Data Integration
- 04/2020-04/2021** **The College of Science Strategic Transformative Research Program (PI)**
 Novel Statistical Models for Microbial Interaction Networks

Refereed Publications

★ = student/postdoc † = corresponding author § = single/leading statistician

- Roy, S.[★], Wong, R., and Ni, Y. (2023) “Directed Cyclic Graph for Causal Discovery of Multivariate Functional Data.” In *Advances in Neural Information Processing Systems (NeurIPS)* 36 (just accepted).
- Niu, Y.[★], Ni, Y.[†], Pati, D., and Mallick, B. (2023) “Covariate-Assisted Bayesian Graph Learning for Heterogeneous Data.” *Journal of American Statistical Association* (just accepted).
- Zhou, F.[★], He, K., Wang, K., Xu, Y., and Ni, Y.[†] (2023) “Functional Bayesian Networks for Discovering Causality from Multivariate Functional Data.” *Biometrics* (just accepted). [arXiv:2210.12832]
- Wang, Z.[★], Zhou, F.[★], He, K., and Ni, Y.[†] (2023) “Multi-Way Overlapping Clustering by Bayesian Tensor Decomposition.” *Statistics and Its Interface* (just accepted).

- Chen, S.* , He, K., He, S., Ni, Y., and Wong, R. (2023) “Bayesian Nonlinear Tensor Regression with Functional Fused Elastic Net Prior.” *Technometrics* (just accepted).

[Alphabetical Order]

- Jin, W.* , Ni, Y., O’Halloran, J., Spence, A., Rubin, L., and Xu, Y. (2023) “A Bayesian Decision Framework for Optimizing Sequential Combination Antiretroviral Therapy in People with HIV.” *Annals of Applied Statistics* (just accepted).
- Choi, J.* , and Ni, Y.† (2023) “Model-Based Causal Discovery for Zero-Inflated Count Data.” *Journal of Machine Learning Research* (just accepted).
- Zhou, F.* , He, K., and Ni, Y.† (2023) “Individualized Causal Discovery with Latent Trajectory Embedded Bayesian Networks.” *Biometrics* (just accepted).
- Kidd, B.* , Wang, K., Xu, Y., and Ni, Y.† (2023) “Bayesian Federated Learning for Sparse Models with Applications to Electronic Health Records and Genomics.” In *Pacific Symposium on Biocomputing 28* (in press)
- Ni, Y.† (2022) “Bivariate Causal Discovery for Categorical Data via Classification with Optimal Label Permutation.” In *Advances in Neural Information Processing Systems (NeurIPS)* 35.
- Ni, Y.†, Stingo, F. C., and Baladandayuthapani, V. (2022) “Bayesian Covariate-Dependent Gaussian Graphical Models with Varying Structure.” *Journal of Machine Learning Research*, 23(242), 1-29.
- Das, P., Peterson, C., Ni, Y., Reuben, A., Zhang, J., Zhang, J., Do, K.A., and Baladandayuthapani, V. (2022) “Bayesian Hierarchical Quantile Regression for Precision Immuno-Oncology.” *Biometrics* (in press).
- Zhou, F.* , He, K., Cai, J., Davidson, L., Chapkin, R., and Ni, Y.† (2022) “A Unified Bayesian Framework for Biclustering Multi-Omic Data via Sparse Matrix Factorization.” *Statistics in Biosciences* (in press).
- Ni, Y.†, and Mallick, B. (2022) “Ordinal Causal Discovery.” In *Proceedings of the Thirty-Eighth Conference on Uncertainty in Artificial Intelligence (UAI)*, PMLR 180:1530-1540.
- Zhou, F.* , He, K., and Ni, Y.† (2022) “Causal Discovery with Heterogeneous Observational Data.” In *Proceedings of the Thirty-Eighth Conference on Uncertainty in Artificial Intelligence (UAI)*, PMLR 180:2383-2393.
- Chung, H. C.* , Gaynanova, I., and Ni, Y.† (2022) “Phylogenetically Informed Bayesian Truncated Copula Graphical Models for Microbial Association Networks.” *Annals of Applied Statistics*, 16(4), 2437-2457.
- Li, Y., Ni, Y., Rubin, L., Spence, A., and Xu, Y. (2022) “BAGEL: A Bayesian Graphical Model for Inferring Drug Effect Longitudinally on Depression in People with HIV.” *Annals of Applied Statistics*, 16(1), 21–39.
- Jin, W.* , Ni, Y., Rubin, L., Spence, A., and Xu, Y. (2022) “A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV.” *Biometrics*, 78, 988–1000.
[Winner of the Mental Health Statistics Section (MHSS) of the American Statistical Association Student Paper Award]
- Ni, Y., Baladandayuthapani, V., Vannucci, M., and Stingo, F. C. (2022) “Bayesian Graphical Models for Modern Biological Applications.” *Statistical Methods and Applications (with Discussion)*, 31(2), 197–225.
- Wang, Z., Ni, Y.†, Jing, B., Wang, D., Zhang, H., and Xing, E. P. (2022) “DNB: A Joint Learning Framework for Deep Bayesian Nonparametric Clustering.” *IEEE Transactions on Neural Networks and Learning Systems*, 1-11.
- Zhou, F.* , He, K., Li, Q., Chapkin, R., and Ni, Y.† (2021) “Bayesian Biclustering for Metagenomic Sequencing Data via Multinomial Matrix Factorization.” *Biostatistics*, 23(3), 891–909.
[Winner of the Section on Bayesian Statistical Science (SBSS) of the American Statistical Association Student Paper Award]
- Choi, J.* , Chapkin, R., and Ni, Y.† (2020) “Bayesian Causal Structural Learning with Zero-Inflated Poisson Bayesian Networks.” In *Advances in Neural Information Processing Systems (NeurIPS)* 33, 5887-5897.
[Spotlight Presentation (385 out of 9454, acceptance rate 4%)]

23. Ni, Y.[†], Jones, D., and Wang, Z. (2020) “Consensus Variational and Monte Carlo Algorithms for Bayesian Nonparametric Clustering.” In *2020 IEEE International Conference on Big Data*, 204-209. [Acceptance rate: 15.7%]
24. Ni, Y.[†], Ji, Y., Müller, P. (2020) “Consensus Monte Carlo for Random Subsets using Shared Anchors.” *Journal of Computational and Graphical Statistics*, 29(4), 703-714.
25. Wang, Z., Jing, B., Ni, Y., Dong, N., Xie, P., and Xing, E. P. (2020) “Relationship-aware Multi-class Adversarial Domain Adaptation.” *The 24th European Conference on Artificial Intelligence*.
26. Vickman, R.E., Broman, M.M., Lanman, N.A., Franco, O.E., Sudyanti, P.A.G., Ni, Y., Ji, Y., Helfand, B.T., Petkewicz, J., Paterakos, M.C., Crawford, S.E., Ratliff, T, L., and Hayward, S.W. (2020) “Heterogeneity of Human Prostate Carcinoma-Associated Fibroblasts Implicates a Role for Subpopulations in Myeloid Cell Recruitment.” *Prostate*, 80(2), 173-185.
27. Ni, Y.[†], Müller, P., and Ji, Y. (2020) “Bayesian Double Feature Allocation for Phenotyping with Electronic Health Records.” *Journal of the American Statistical Association*, 115(532), 1620-1634.
28. Ni, Y.[†], Müller, P., Diesendruck, M., Williamson, S., Zhu, Y., and Ji, Y. (2020) “Scalable Bayesian Nonparametric Clustering and Classification.” *Journal of Computational and Graphical Statistics*, 29(1), 53-65.
29. Ge, T., Chen, C.Y., Ni, Y.[§], Feng, Y.C.A., Smoller, J.W. (2019) “Polygenic Prediction via Bayesian Regression and Continuous Shrinkage Priors”. *Nature Communications*, 10(1) 1776.
[Selected as Editors’ Highlights]
30. Ni, Y., Müller, P., Shpak, M., and Ji, Y. (2019) “Parallel-Tempered Feature Allocation for Large-scale Tumor Heterogeneity with Deep Sequencing Data.” In: Liu R., Tsong Y. (eds) *Pharmaceutical Statistics. MBSW 2016. Springer Proceedings in Mathematics & Statistics, vol 218. Springer, Cham*.
31. Ni, Y.[†], Stingo, F. C., Ha, M. J., Akbani, R., and Baladandayuthapani, V. (2019) “Bayesian Hierarchical Varying-sparsity Model with Application to Cancer Proteo-genomics.” *Journal of the American Statistical Association*, 114(525) 48-60.
32. Ni, Y., Stingo, F. C., and Baladandayuthapani, V. (2019) “Bayesian Graphical Regression.” *Journal of the American Statistical Association*, 114(525) 184-197.
33. Ni, Y.[†], Ji, Y., and Müller, P. (2018) “Reciprocal Graphical Models for Integrative Gene Regulatory Network Analysis.” *Bayesian Analysis*, 13(4), 1095–1110.
34. Ni, Y.[†], Müller, P, Zhu, Y, and Ji, Y. (2018) “Heterogeneous Reciprocal Graphical Models.” *Biometrics*, 74(2), 606-615.
35. Ni, Y.[†], Müller, P., Lin, W., and Ji, Y. (2018) “Bayesian Graphical Models for Computational Network Biology.” *BMC Bioinformatics*, 19(3), 63.
36. Shpak M., Ni, Y.[§], Lu, J., Müller, P. (2017) “Variance in Estimated Pairwise Genetic Distance Under High versus Low Coverage Sequencing: the Contribution of Linkage Disequilibrium.” *Theoretical Population Biology*, 117, 51-63.
37. Ni, Y., Stingo, F. C., and Baladandayuthapani, V. (2017) “Sparse Multi-Dimensional Graphical Models: A Unified Bayesian Framework.” *Journal of the American Statistical Association*, 112(518) 779-793.
38. Ni, Y., Stingo, F. C., and Baladandayuthapani, V. (2015) “Bayesian Nonlinear Model Selection for Gene Regulatory Networks.” *Biometrics*, 71(3) 585-595.
39. Guo, W., Ni, Y., and Ji, Y. (2015) “TEAMS: Toxicity- and Efficacy-based Dose Insertion Design with Adaptive Model Selection for Phase I/II Dose-Escalation Trials in Oncology” *Statistics in Biosciences*, 7(2) 432-459.
40. Ni, Y., Stingo, F. C., and Baladandayuthapani, V. (2014) “Integrative Bayesian Network Analysis of Genomic Data.” *Cancer Informatics*, 13(s2) 39-48.

Non-Refereed Publications

1. Ni, Y.[†] (2023) “Handbook of Bayesian Variable Selection by Mahlet G. Tadesse and Marina Vannucci.” *Journal of the American Statistical Association*.
2. Ni, Y.[†] (2022) “Bayesian Thinking in Biostatistics by Gary L. Rosner, Purushottam W. Laud, and Wesley O. Johnson.” *Journal of the American Statistical Association*, 117(538), 1041-1042.
3. Ni, Y.[†] (2022) “Exploratory Data Analysis with MATLAB (Third Edition) by Wendy L. Martinez, Angel R. Martinez, and Jeffrey L. Solka.” *The American Statistician*, 76(1), 85-86.
4. Ni, Y., Baladandayuthapani, V., Vannucci, M., and Stingo, F. C. (2022) Rejoinder to the Discussion of “Bayesian Graphical Models for Modern Biological Applications.” *Statistical Methods and Applications*, 31(2), 287–294.
5. Ni, Y., and Müller, P. (2017) Discussion of “Sparse Graphs Using Exchangeable Random Measures.” by Caron, E., and Fox, E. *Journal of the Royal Statistical Society: Series B*.
6. Ni, Y., Marchetti, G. M., Baladandayuthapani, V., and Stingo, F. C. (2015) “Bayesian Approaches for Large Biological Networks.” in *Nonparametric Bayesian Methods in Biostatistics and Bioinformatics*, Mitra, R. and Müller, P. (eds), Springer-Verlag.

Pending Papers

1. Choi, J.* , Chapkin, R., and Ni, Y.[†] “Bayesian Differential Causal Directed Acyclic Graphs for Observational Zero-Inflated Counts with An Application to Two-Sample Single-Cell Data.” Submitted.
[Winner of the Section on Bayesian Statistical Science (SBSS) of the American Statistical Association Student Paper Award]
2. Ni, Y.[†], and Chen, S. “Casual Structural Modeling of Survey Questionnaires via a Bootstrapped Ordinal Bayesian Network Approach.” [10.31234/osf.io/7b6ty]
3. Chung, H. C.* , Ni, Y., and Gaynanova, I. “Sparse Semiparametric Discriminant Analysis for High-Dimensional Zero-Inflated Data.” Submitted. [arXiv:2208.03734]
4. Whitfield-Cargile, C.M., Chung, H. C.* , Coleman, M.C., Cohen, N.D., Chamoun-Emanuelli, A.M., Ivanov, I., Goldsby, J.R., Davidson, L.A., Gaynanova, I., Ni, Y., and Chapkin, R.S. “Integrated Analysis of Gut Metabolome, Microbiome, and Exfoliome Data in an Equine Model of Intestinal Injury.” Submitted.
5. Sagar, K., Ni, Y., Baladandayuthapani, V., and Bhadra, A. “Bayesian Covariate-Dependent Quantile Directed Acyclic Graphical Models for Individualized Inference.” Submitted. [arXiv:2210.08096]
6. Chakrabarti, A.* , Ni, Y.[†], Morris, E.R.A., Salinas, M.L., Chapkin, R.S., and Mallick, B. “Graphical Dirichlet Process.” Submitted. [arXiv:2302.09111]
7. Jin, W.* , Ni, Y., Spence, A., Rubin, L., and Xu, Y. “Long-Short-Term Cyclic Structural Causal Model for Time-Series Causal Discovery.” Submitted.
8. Das, S., Niu, Y., Ni, Y., Mallick, B., and Pati, D. “Blocked Gibbs Sampler for Hierarchical Dirichlet Processes.” Submitted. [arXiv:2304.09945]
9. Chakrabarti, A.* , Ni, Y.[†], and Mallick, B. “Bayesian Flexible Modelling of Spatially Resolved Transcriptomic Data.” Submitted.
10. Jin, W.* , Ni, Y., Spence, A., Rubin, L., and Xu, Y. “A Bayesian Approach for Investigating the Pharmacogenetics of Combination Antiretroviral Therapy in People with HIV.” Invited Revision from *Biostatistics*.
11. Chen, L., Acharyya, S., Luo, C., Ni, Y., and Baladandayuthapani, V. “Probabilistic Graphical Modeling under Heterogeneity.” Submitted.
12. Yao, T., Ni, Y., Bhadra, A., Kang, J., and Baladandayuthapani, V. “Robust Bayesian Graphical Regression Models for Assessing Tumor Heterogeneity in Proteomic Networks.” Submitted.

Teaching Experience

Spring 2023	STAT 639 - Data Mining and Analysis Department of Statistics, Texas A&M University
Fall 2022	STAT 636 - Applied Multivariate Analysis and Statistical Learning Department of Statistics, Texas A&M University
Spring 2022	STAT 639 - Data Mining and Analysis Department of Statistics, Texas A&M University
Spring 2022	STAT 211 - Principles of Statistics I Department of Statistics, Texas A&M University
Fall 2021	STAT 689 - Special Topics in Probabilistic Graphical Models Department of Statistics, Texas A&M University
Spring 2021	STAT 639 - Data Mining and Analysis Department of Statistics, Texas A&M University
Fall 2020	STAT 211 - Principles of Statistics I Department of Statistics, Texas A&M University
Fall 2020	STAT 681 - Seminar Department of Statistics, Texas A&M University
Spring 2020	STAT 639 - Data Mining and Analysis Department of Statistics, Texas A&M University
Spring 2020	STAT 681 - Seminar Department of Statistics, Texas A&M University
Fall 2019	STAT 211 - Principles of Statistics I Department of Statistics, Texas A&M University
Spring 2019	STAT 639 - Data Mining and Analysis Department of Statistics, Texas A&M University
Fall 2018	STAT 211 - Principles of Statistics I Department of Statistics, Texas A&M University

Current PhD Students

2022-present	Lei Wang
2022-present	Bitan Sarkar
2022-present	Valeriya Rogovchenko
2022-present	Arhit Chakrabarti
2022-present	Saptarshi Roy
2022-present	Donald Turner
2021-present	Trisha Dawn
2020-present	Rochita Das

Current Postdocs

2023-present Anamitra Chaudhuri

2023-present Pritam Dey

2022-present Wei Jin

Past Trainees

2019-2023 Junsouk Choi (Postdoctoral Fellow, University of Michigan)

2019-2022 Wei Jin (Postdoctoral Fellow, Johns Hopkins University)

2020-2022 Hee Cheol Chung (Assistant Professor, UNC Charlotte)

2019-2022 Yabo Niu (Assistant Professor, University of Houston)

2019-2022 Sandipan Pramanik (Postdoctoral Fellow, Johns Hopkins University)

2019-2022 Fangting Zhou (Postdoctoral Fellow, Yale University)

2019-2022 Brian Kidd (Statistician, Sciome)

2021 Summer Michael Lee (BS in Statistics)

2020 Summer Lei Li (MS in Biostatistics)

2019-2020 Sahil Patel (BS in Computer Science)

PhD Student Committee

Yabo Niu (Graduated in 2019), Huiya Zhou (Graduated in 2022), Eric Chuu (Graduated in 2022), Patrick Ding (Graduated in 2022), Honggang Wang, Rachael Shudde (Graduated in 2022), Mohammadreza Armandpour (Graduated in 2022), Changwoo Lee, Jianing Dong, Abhisek Chakraborty, Lei Wang, Sungee Hong, Snigdha Das, Gozde Sert, Weiwei Wang, Eric Gao, Vixey Fang (Department of Epidemiology and Biostatistics), Lahong Xu (Department of Biochemistry and Biophysics; Graduated in 2022), Samuel Lockhart Priestley (Department of Agricultural Economics), Faith Parum (Department of Agricultural Economics), Yusuf Falola (Department of Petroleum Engineering), A N M Nafiz Abeer (Department of Electrical and Computer Engineering), Destiny McNeece Mullens (Department of Veterinary Physiology and Pharmacology), Fangting Zhou (Chair; Graduated in 2022), Brian Kidd (Chair; Graduated in 2022), Junsouk Choi (Chair, Graduated in 2023), Sandipan Pramanik (Co-Chair; Graduated in 2022)

Master Student Committee

Ya Zhou (Graduated in 2019), Xin Jin, Ruomeng Zhang, Licheng Fan (Department of Chemistry; Graduated in 2020); Corina Ramont

Grant Review Service

2023 National Institutes of Health (U.S.)

2023 Research Grants Council of Hong Kong (Hong Kong)

2022 National Institutes of Health (U.S.)

2021 National Science Foundation (U.S.)

2021 Graduate Women In Science (U.S.)

2021 Research Grants Council of Hong Kong (Hong Kong)

2020 Biotechnology and Biological Sciences Research Council (U.K.)

2020 Engineering and Physical Sciences Research Council (U.K.)

2020 Canadian Statistical Sciences Institute, Collaborative Research Team Projects (Canada)

Journal/Conference/Book Review Service

Journal of the Royal Statistical Society (Series B); Journal of the American Statistical Association; Biometrika; Journal of Machine Learning Research; Neural Information Processing Systems; International Conference on Machine Learning; International Conference on Learning Representations; International Conference on Artificial Intelligence and Statistics (selected as a top 10% reviewer in 2022); Annals of Applied Statistics; Biometrics; Bayesian Analysis; Bioinformatics; Journal of the Royal Statistical Society (Series C); Journal of Multivariate Analysis; Statistics and Its Interface; Statistics in Medicine; Statistical Analysis and Data Mining; Sankhya (Series A); Journal of Statistical Distributions and Applications; Stat; Genetics; PLOS One; Biometrical Journal; Cancer Informatics; Epidemiology; American Statistician; Neurocomputing; BMC Medical Research Methodology; Computers in Biology and Medicine; CRC Press; Springer; PhD Dissertation (University of Bologna, Bocconi University);

Departmental Service

- 2022-present** Bioinformatics Degree Committee
- 2022-present** Computing Resources Committee
- 2022** Grant Committee
- 2021-present** Faculty Hiring Committee
- 2021** SOAR Faculty Subcommittee (Chair)
- 2021** SOAR Causal Research Subcommittee (Chair)
- 2020** Seminar Coordinator
- 2019-2022** Faculty Advisory Committee
- 2018-2019** Library Committee
- 2018-2019** Computing Committee

Professional Service

- 2021-2022** President, The Southeastern Texas Chapter of the American Statistical Association (SETCASA)
- 2020-2021** Vice President, The Southeastern Texas Chapter of the American Statistical Association (SETCASA)
- 2019-2020** Secretary, The Southeastern Texas Chapter of the American Statistical Association (SETCASA)

Organizing Experience

- Organizing Committee (Chair)** - CBMS Conference: Foundations of Causal Graphical Models and Structure Discovery, Texas A&M University, 2023
- Student Paper Competition Committee** - ASA Section on Statistical Learning and Data Science (SLDS), 2023
- Invited Session** - The IISA International Conference on Statistics, 2022
- Organizing Committee** - 5th TAMU Symposium on Bioinformatics, 2022
- Invited Session** - ISBA International Conference, 2021
- Organizing Committee** - Workshop on Data Science and Machine Learning in Agriculture and Applied Economics at TAMU, 2022
- Invited Session** - ENAR 2022 Spring Meeting, 2022
- Savage Award Committee** - International Society for Bayesian Analysis, 2021-2022

Organizing Committee - 4th TAMU Symposium on Bioinformatics (Cancer), 2021

Invited Session - ISBA International Conference, 2021

Student Paper Competition Committee - ASA Section on Statistical Learning and Data Science (SLDS), 2021

Student Paper Competition Committee - ASA Section on Bayesian Statistical Science (SBSS), 2021

Savage Award Committee - International Society for Bayesian Analysis, 2020-2021

Invited Session - 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020), 2020

Organizing Committee - 3rd TAMU Symposium on Bioinformatics, 2020

Invited Session - ICSA Applied Statistics Symposium, 2020

Student Paper Competition Committee - ICSA Applied Statistics Symposium, 2020

Student Paper Competition Committee - ASA Section on Statistical Learning and Data Science (SLDS), 2020

Invited Sessions (6) - The IISA International Conference on Statistics, 2019

Faculty Advisory Committee - Texas A&M University Datathon, 2019

Organizing Committee - 2nd TAMU Symposium on Bioinformatics: Research and Application, 2019

Technical Program Committee - CNB-MAC Workshop, 2019

Organizing Committee - SETCASA Student Poster Competition, 2019

Technical Program Committee - CNB-MAC Workshop, 2018

Invited Session - 4th International Conference on Big Data and Information Analytics, 2018

Awards

2023 Faculty Excellence Award - College of Arts and Sciences, Texas A&M University

2019 ICSA New Researcher Awards - 11th ICSA International Conference, Hangzhou, China

2018 Junior Travel Support - 20th Meeting of New Researchers in Statistics and Probability

2018 NSF Junior Travel Support - ISBA World Meeting, Edinburgh, UK

2017 Travel Support - Rising Stars Symposium in Data Science, The University of Chicago

2017 Savage Award (honorable mention) - Best Bayesian Dissertations

2017 Travel Support - The Third Annual Kliakhandler Conference on Bayesian Inference in Statistics and Statistical Genetics

2017 Junior Travel Support - 19th Meeting of New Researchers in Statistics and Probability

2017 Junior Travel Support - CBMS Regional Conference on Spatial Statistics

2016 Young Researcher Award - 10th ICSA International Conference, Shanghai, China

2016 NSF Junior Travel Support - ISBA World Meeting, Sardinia, Italy

2016 Student Paper Award - The Section on Statistical Learning and Data Mining (SLDM) of the American Statistical Association (ASA), the Joint Statistical Meetings

2015 Jiann-Ping Hsu Pharmaceutical and Regulatory Sciences Award - Joint 24th ICSA Applied Statistics Symposium and 13th Graybill Conference

2015 Young Investigator Travel Award - G70 Conference, Durham, North Carolina

2014 Laplace Award (co-winner) - awarded to top papers among the student travel award winners from the Section on Bayesian Statistical Science (SBSS) of the American Statistical Association (ASA), the Joint Statistical Meetings

2012 Fellowship - Rice University, Department of Statistics

Invited Presentations/Lectures

- 2023** The Institute for Mathematical Statistics – Asia-Pacific Rim Meeting, Melbourne, Australia
Graphical Dirichlet Process
- 2023** 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), Berlin, Germany
Causal Discovery from Multivariate Functional Data
- 2023** Department of Statistics, University of Kentucky
Causal Discovery from Multivariate Functional Data
- 2023** Department of Mathematical and Statistical Sciences, Clemson University
Causal Discovery from Multivariate Functional Data
- 2023** Center for Genomic and Precision Medicine, Texas A&M Institute of Biosciences & Technology
Causal Graphical Models for Discovering Gene Regulations
- 2023** Department of Statistics, Rice University
Causal Discovery from Multivariate Functional Data
- 2023** Pacific Causal Inference Conference, Virtual
Causal Discovery from Multivariate Functional Data
- 2023** EcoSta, Virtual
Causal Discovery for Categorical Data via Classification with Optimal Label Permutation
- 2023** WNAR, Anchorage, AK
Causal Discovery for Categorical Data via Classification with Optimal Label Permutation
- 2023** Department of Mathematics, University of Houston
Causal Graphical Models for Discovering Gene Regulations
- 2023** Department of Statistics and Data Sciences, The University of Texas at Austin
Causal Graphical Models for Discovering Gene Regulations
- 2023** Alamo Symposium in Statistics, San Antonio, TX
Bivariate Causal Discovery for Categorical Data via Classification with Optimal Label Permutation
- 2023** Department of Statistics, North Carolina State University
Causal Graphical Models for Discovering Gene Regulations
- 2023** Department of Biostatistics, Yale University
Causal Graphical Models for Discovering Gene Regulations
- 2023** Pacific Symposium on Biocomputing, Big Island, HI
Bayesian Federated Learning for Sparse Models with Applications to Electronic Health Records and Genomics
- 2022** 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), London, UK
Ordinal Causal Discovery
- 2022** Thirty-sixth Conference on Neural Information Processing Systems, New Orleans, LA (Poster)
Bivariate Causal Discovery for Categorical Data via Classification with Optimal Label Permutation
- 2022** Department of Biostatistics, MD Anderson Cancer Center, Virtual
Causal Graphical Models for Discovering Gene Regulations
- 2022** Department of Biostatistics, University of Michigan
Causal Graphical Models for Discovering Gene Regulations

- 2022** School of Statistics and Data Science, Nankai University, Virtual
Causal Graphical Models for Discovering Gene Regulations
- 2022** Department of Mathematical Sciences, The University of Texas at Dallas
Causal Graphical Models for Discovering Gene Regulations
- 2022** Joint Statistical Meetings, Washington, D.C.
Bayesian Causal Discovery for Purely Observational Genomic Data
- 2022** The Conference on Uncertainty in Artificial Intelligence, Virtual (Poster)
Ordinal Causal Discovery
- 2022** ICSA 2022 Applied Statistics Symposium, Gainesville, Florida
Ordinal Causal Discovery
- 2022** EcoSta, Virtual
Ordinal Causal Discovery
- 2022** Workshop on Data Science and Machine Learning in Agriculture and Applied Economics, TAMU
Ordinal Causal Discovery
- 2022** ENAR, Houston, TX
Ordinal Causal Discovery
- 2022** IMS Statistical Methods in Genetic/Genomic Studies Workshop, Virtual
Ordinal Causal Discovery for Reverse-Engineering Gene Regulatory Networks
- 2021** 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), Virtual
Bayesian Causal Graphical Models with Purely Observational Data
- 2021** Foundations of Objective Bayesian Methodology Workshop, Virtual
Individualized Causal Discovery with Latent Trajectory Embedded Bayesian Networks
- 2021** The Fifth EAC-ISBA Conference, Atlantic City, NJ
Bayesian Causal Discovery for Purely Observational Genomic Data
- 2021** Department of Statistical Science, Baylor University
Bayesian Causal Discovery for Reverse-Engineering Gene Regulatory Networks
- 2021** Joint Statistical Meetings, Virtual
BN-LTE: Bayesian Networks with Latent Trajectory Embedding
- 2021** ISBA, Virtual
Bayesian Nonparametric Bi-Clustering of Microbiome Data
- 2021** The 4th International Conference on Econometrics and Statistics (EcoSta), Virtual
Bayesian Causal Discovery for Reverse-Engineering Single-Cell Gene Regulatory Networks
- 2021** Bayesian Research Group
Department of Statistics, University of Auckland, Virtual
Consensus Monte Carlo and Variational Algorithms for Bayesian Nonparametric Models
- 2021** Survival, Longitudinal And Multivariate (SLAM) Data Working Group
Department of Biostatistics, Johns Hopkins University, Virtual
Causal Discovery for Longitudinal Data with Functional Bayesian Networks
- 2021** Department of Statistical Science, Duke University, Virtual
Bayesian Causal Discovery for Reverse-Engineering Gene Regulatory Networks
- 2020** 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), Virtual
Bayesian Causal Structural Learning with Zero-Inflated Poisson Bayesian Networks

- 2020** ICSA 2020 Applied Statistics Symposium, Virtual
Bayesian Causal Structural Learning with Zero-Inflated Poisson Bayesian Networks
- 2020** Joint Statistical Meetings, Virtual
Bayesian Nonparametric Bi-Clustering of Microbiome Data
- 2020** Department of Biostatistics, LSU Health Sciences Center New Orleans, LA
Bayesian Nonparametric Bi-Clustering of Microbiome Data
- 2019** The 2019 IISA Conference, Mumbai, India
Covariate-Dependent Graphs with Application in Cancer Genomics
- 2019** The 11th ICSA International Conference, Hangzhou, Zhejiang, China
Covariate-Dependent Graphs with Application in Cancer Genomics
- 2019** 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), London, UK
Covariate-Dependent Graphical Models
- 2019** 12th International Conference on Bayesian Nonparametrics, Oxford, UK
Double Feature Allocation for Phenotyping with Electronic Health Records Data
- 2019** Department of Statistics, Chinese University of Hong Kong, Hong Kong
Double Feature Allocation for Phenotyping with Electronic Health Records Data
- 2019** Institute of Statistics and Big Data (ISBD), Renmin University of China
Introduction to Bayesian Parametric and Nonparametric Modeling
- 2019** Big Data Seminar, College of Veterinary Medicine, TAMU
Scalable Bayesian Clustering and Classification with Application to EHR
- 2018** 4th International Conference on Big Data and Information Analytics, Houston
Scalable Bayesian Clustering and Classification with Application to EHR
- 2018** Electrical & Computer Engineering Bio-Seminar, TAMU
Applications of Network Models in Biostatistics and Bioinformatics
- 2018** Joint Statistical Meetings, Vancouver, Canada
Heterogeneous Reciprocal Graphical Models
- 2018** ISBA, Edinburgh, UK
Heterogeneous Reciprocal Graphical Models
- 2018** EcoSta, Hong Kong, China
Scalable Bayesian Nonparametric Clustering and Classification
- 2018** Institute of Statistics and Big Data (ISBD), Renmin University of China
Introduction to Bayesian Modeling and Inference
- 2018** IISA International Conference on Statistics, Gainesville, FL
Scalable Bayesian Nonparametric Clustering and Classification with Application to Medical Records Data
- 2017** Department of Statistics at Federal University of São Carlos, Brazil (via Teleconference)
Integrative Directed Cyclic Graphical Models with Heterogeneous Samples
- 2017** Rising Stars Symposium in Data Science, The University of Chicago
Heterogeneous Directed Cyclic Graphs
- 2017** Third Annual Kliakhandler Conference on Bayesian Inference in Statistics and Statistical Genetics, Houghton, MI
Heterogeneous Directed Cyclic Graphs

- 2016** 10th ICSA International Conference, Shanghai, China
Bayesian Graphical Regression
- 2015** Joint 24th ICSA Applied Statistics Symposium and 13th Graybill Conference, Fort Collins, CO
Bayesian Nonlinear Model Selection for Gene Regulatory Networks
- 2014** University of Texas M.D. Anderson Cancer Center
Multi-Dimensional Graphical Models
- 2014** Hackathon: DREAM 9 Acute Myeloid Leukemia Outcome Prediction Challenge, Houston, TX
Bayesian Nonlinear Model Selection for Gene Regulatory Networks
- 2013** University of Texas M.D. Anderson Cancer Center
Introduction to Graphical Models (jointly with Dr. Francesco C. Stingo)

Contributed Presentations

- 2023** The 2023 American Causal Inference Conference (ACIC), Austin, TX (Poster)
Causal Discovery for Observational Categorical Data
- 2019** Joint Statistical Meetings, Denver, CO
Double Feature Allocation for Phenotyping with Electronic Health Records Data
- 2018** ENAR, Atlanta, GA
Scalable Bayesian Nonparametric Clustering and Classification
- 2017** 8th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, Boston, MA
Heterogeneous Directed Cyclic Graphs
- 2017** Joint Statistical Meetings, Baltimore, MD (Savage Award SPEED Section)
Heterogeneous Directed Cyclic Graphs
- 2017** 19th Meeting of New Researchers in Statistics and Probability, Baltimore, MD (Poster)
Heterogeneous Directed Cyclic Graphs
- 2017** WNAR, Santa Fe, NM
Heterogeneous Reciprocal Graphical Models
- 2016** Joint Statistical Meetings, Chicago, IL
Sparse Multi-Dimensional Graphical Models: A Unified Bayesian Framework
- 2016** ISBA, Sardinia, Italy (Poster)
Sparse Multi-Dimensional Graphical Models: A Unified Bayesian Framework
- 2015** iBRIGHT, Houston, TX (Poster)
Sparse Multi-Dimensional Graphical Models: A Unified Bayesian Framework
- 2015** Joint Statistical Meetings, Seattle, WA
Sparse Multi-Dimensional Graphical Models: A Unified Framework
- 2015** G70 Conference, Duke University (Poster)
Bayesian Nonlinear Model Selection for Gene Regulatory Networks
- 2014** Department of Statistics, Rice University
Multi-Dimensional Graphical Models
- 2014** Joint Statistical Meetings, Boston, MA
Bayesian Nonlinear Model Selection for Gene Regulatory Networks
- 2014** 7th Annual Bayesian Biostatistics and Bioinformatics Conference, Houston, TX (Poster)
Bayesian Nonlinear Model Selection for Gene Regulatory Networks