Honglang Wang

Contact Information	LD 270B, 402 N.Blackford St., Department of Mathematical Sciences Indianapolis, IN, 46202	*Phone:* (317) 274-7858 *E-mail:* hlwang@iu.edu *Homepage:* https://honglang.github.io/

Research Interests

Statistical analysis for functional and longitudinal data, causal inference, machine learning/deep learning, high dimensional statistical inference and its applications, nonparametric smoothing methods, missing data analysis, Empirical Likelihood method and its applications, statistical genetics/genomics.

Education

Michigan State University, East Lansing, MI

Ph.D., Statistics, August 2015

- Thesis Topic: *Empirical Likelihood Based Functional Data Analysis and High Dimensional Inference with Applications to Biology*
- Advisors: Ping-Shou Zhong, Ph.D and Yuehua Cui, Ph.D

Ph.D., Quantitative Biology, August 2015

- Advisors: C. Robin Buell, Ph.D and Yuehua Cui, Ph.D

Zhejiang University, Hangzhou, China

M.S., Mathematics, Jul. 2010

- Topic: *Information Geometry and its Applications*
- Advisor: Kefeng Liu, Ph.D

Tianjin University, Tianjin, China

B.S., Mathematics and Applied Mathematics, Jul. 2007

- Topic: *On Characterization of The Compactness of Composition Operator in Some Spaces*
- Advisor: Zehua Zhou, Ph.D

Academic Positions

Associate Professor, Department of Mathematics, IU Indianapolis August 2022 to present

Assistant Professor, Department of Mathematics, IUPUI August 2015 to July 2022

Research Experience

Research Assistant Sep. 2014 to May. 2015
Research supported in part by NSF awards DMS-1209112 and IOS-1237969,
Supervisors: Yuehua Cui, Ph.D, Ping-Shou Zhong, Ph.D, and C. Robin Buell, Ph.D.

Research Assistant May 2014 to August 2014
Research Supported by Dissertation Continuation Fellowships from the College of Natural Science,
Supervisors: Yuehua Cui, Ph.D and Ping-Shou Zhong, Ph.D.

Research Assistant Sep. 2013 to May 2014
Research supported in part by NSF awards DMS-1209112 and IOS-1237969,
Supervisors: Yuehua Cui, Ph.D, Ping-Shou Zhong, Ph.D, and C. Robin Buell, Ph.D.

Research Assistant Jan. 2013 to May 2013
Research supported by NSF awards DMS-1209112,
Supervisors: Yuehua Cui, Ph.D and Ping-Shou Zhong, Ph.D.

Publications

1. Jingyi Zhang, **Honglang Wang**, Yuehua Cui. "Generalized functional varying index coefficient model for dynamic synergistic gene-environment interactions with binary longitudinal traits." *Plos One, 2025*

2. Isaac Manring, **Honglang Wang**, George Mohler, Xenia Miscouridou. "BSTPP: A Python Package for Bayesian Spatiotemporal Point Processes." *Journal of Applied Statistics, 2025*

3. Jingyi Zhang, Xu Liu, **Honglang Wang**, Yuehua Cui. "Functional varying-index coefficients model for dynamic synergistic gene-environment interactions." *Statistics in Biosciences, 2025*

4. Yishan Cui, **Honglang Wang**. "Empirical likelihood-based efficient semiparametric inference for longitudinal data." *Revision, The Canadian Journal of Statistics, 2025*

5. Ran Mo, **Honglang Wang**. "Outlier Resistant Inference for Conditional Average Treatment Effect." *submitted to Statistica Sinica, 2025*

6. Yishan Cui, **Honglang Wang**. "Penalized rank-based inference for individualized treatment rules in single-index varying coefficient model." *submitted to Computational Statistics & Data Analysis, 2025*

7. Xiang Wang, **Honglang Wang**. "Dominant-Set based hierarchical clustering with applications to functional data analysis." *submitted to Electronic Journal of Statistics, 2024*

8. Xiang Wang, **Honglang Wang**. "Empirical likelihood based inference for functional mean models accounting for within-subject correlation." *Revision, Journal of Nonparametric Statistics, 2024*

9. Na Qiao, **Honglang Wang**, Yue Li, and Lixin Wang. "Comparative impact of fog and rainfall on vegetation in a foggy desert." *Geophysical Research Letters, 2024*

10. Yusen Yuan, Lixin Wang, Zhongwang Wei, Hoori Ajami, **Honglang Wang**, Taisheng Du. "Using Median Point in Keeling Plot to Reduce the Uncertainty of the Isotopic Composition of Evapotranspiration." *Journal of Hydrometeorology, 2024*

11. Sayli Pokal, Yawen Guan, **Honglang Wang**, Yuzhen Zhou. "An Improved Doubly Robust Estimator Using Partially Recovered Unmeasured Spatial Confounder." *submitted, 2023*

12. **Honglang Wang**, Jingyi Zhang, Kelly L. Klump, S. Alexandra Burt, Yuehua Cui. "Multivariate partial linear varying coefficients model for gene-environment interactions with multiple longitudinal traits." *Statistics in Medicine, 2022*

13. Wenzhe Jiao, Lixin Wang, **Honglang Wang**, Matthew Lanning, Qing Chang, Kimberly A Novick. "Comprehensive quantification of the responses of ecosystem production and respiration to drought time scale, intensity and timing in humid environments: A FLUXNET synthesis." *Journal of Geophysical Research - Biogeosciences, 2022*

14. Shuoyang Wang, **Honglang Wang**, Yichuan Zhao, Guanqun Cao, Yingru Li. "Empirical Likelihood Ratio Tests for Varying Coefficient Geo Models." *Statistica Sinica, 33(4), 2021.*

15. Yusen Yuan, Lixin Wang, **Honglang Wang**, Wenqing Lin, Wenzhe Jiao, Taisheng Du. "A Modified Isotope-based Method for Potential High-Frequency Evapotranspiration Partitioning." *Advances in Water Resources, accepted, 2021*

16. Ruohong Li, **Honglang Wang**, Yi Zhao, Jin Su, Wanzhu Tu. "Robust estimation of heterogeneous treatment effects: an algorithm-based approach." *Communications in Statistics - Simulation and Computation, in press, 2021*

17. Wenzhe Jiao, Lixin Wang, William K. Smith, Qing Chang, **Honglang Wang**. "Increasing water constraint on vegetation productivity over the last three decades." *Nature Communications, 12, 3777, 2021*

18. Ruohong Li, **Honglang Wang**, Wanzhu Tu. "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data." *Statistics in Medicine, 40 (11), 2713-2752, 2021*

19. Yusen Yuan, Taisheng Fu, **Honglang Wang**, Lixin Wang. "Novel Keeling plot based methods to estimate the isotopic composition of ambient water vapor." *Hydrology and Earth System Sciences, 24, 4491-4501,2020*

20. Ruohong Li, **Honglang Wang**, Wanzhu Tu. "Gaussian Quadrature." *Wiley StatsRef-Statistics Reference Online, 2020*

21. **Honglang Wang**, Ping-Shou Zhong, Yuehua Cui, Yehua Li. "Unified empirical likelihood ratio tests for functional concurrent linear models and the phase transition from sparse to dense functional data." *Journal of the Royal Statistical Society: Series B (Statistical Methodology), 80(2):343-364, 2018.*

22. **Honglang Wang**, Ping-Shou Zhong, Yuehua Cui. "Empirical Likelihood Ratio Tests for Coefficients in High Dimensional Heteroscedastic Linear Models." *Statistica Sinica 28 (2018), 2409-2433*

23. **Honglang Wang**, Wanzhu Tu. "Bootstrap Methods: The Classical Theory and Recent Development." *Wiley StatsRef-Statistics Reference Online, 2018*

24. Samuel Wong, **Honglang Wang**, Robert Tepper, Gregory M Sokol, Rebecca Rose. "Expired Tidal Volume Variation in Extremely Low Birth Weight and Very Low Birth Weight Infants on Volume-Targeted Ventilation." *The Journal of pediatrics, 207, 248-251, 2019*

25. Fang Han, Hongkai Ji, Zhicheng Ji, **Honglang Wang**. "A Provable Smoothing Approach for High Dimensional Generalized Regression with an Application in Genomics." *Electronic Journal of Statistics 2017, Vol. 11, No. 2, 4347-4403.*

26. Fang Han, Xi Chen, **Honglang Wang**, Lexin Li, Brain S. Caffo. "Robust Graph Change-point Detection with Application to Brain Evolvement Study." *Submitted.*

27. Pratik Nalawade, Kate Ansah-Koi, Khairi Reda, Fang Li, **Honglang Wang**, Wei Zheng. "The Effects of Spatial Frequency and Colormap Characteristics on the Perception of 2D Pseudocolor Scalar Fields." *Submitted*

28. Xu Liu, **Honglang Wang**, Yuehua Cui. "Statistical identification of gene-gene interactions triggered by nonlinear environmental modulation." *Current Genomics, 2016, 17(5): 388-395.*

29. **Honglang Wang**, Tao He, Cen Wu, Ping-Shou Zhong, Yuehua Cui. "A powerful statistical method identifies novel loci associated with diastolic blood pressure triggered by nonlinear gene-environment interaction." *BMC Proceedings* 2014, 8(Suppl 1):S61 (17 June 2014)

Note: underlined authors are the PhD students under supervision.

Awards

- Purdue Research Foundation Summer Faculty Grant, Purdue University 2019
- Purdue Research Foundation International Travel Grant, Purdue University 2018
- Travel Award for the "20th Meeting of New Researchers in Statistics and Probability", Institute of Mathematical Statistics (IMS), 2018
- NSF Travel Award for The Nonparametric Statistics Workshop entitled "Integration of Theory, Methods and Applications", University of Michigan, Ann Arbor 2016
- College of Natural Science US15 Dissertation Completion Fellowship, Michigan State University 2015
- College of Natural Science US14 Dissertation Continuation Fellowship, Michigan State University 2014
- William L Harkness Teaching Award, Michigan State University 2014
- Travel Award of GAW18 2012
- Second-class Award of Honor for Graduate, Zhejiang University 2008
- First Prize in the 13th National Graduate Summer School in Mathematics 2008
- Scholarship for Academic Excellence, Tianjin University 2005–2006
- 6th Outstanding Student of Science and Technology in Tianjin University 2005
- Tianjin University—Yuandong Chunguang Scholarship 2005
- Scholarship for Academic Excellence, Tianjin University 2004

Research Grants

- Sole PI: LEAPS-MPS: Advancement of Functional Data Inference with Applications to Neuroimaging, NSF, DMS-2212928, $243,215.00 July 2022-June 2026
- (Subrecipient PI with PTE PI: Dr. C. Robin Buell) Unraveling the Heterozygosity, Allelic Composition, and Copy Number Variation of Potato, $14,812 2016-2017

Presentations

- "Dominant-Set Based Clustering For Functional Data", The 2025 ICSA Applied Statistics Symposium, University of Connecticut, Storrs, Connecticut June, 2025
- "Robust Inference for Heterogeneous Treatment Effects", ENAR 2025 Spring Meeting, New Orleans, LA March, 2025
- "Robust Inference for Heterogeneous Treatment Effects", Biostatistics Seminar, IU School of Medicine February, 2025
- "Dominant-Set Based Clustering For Functional Data", The Conference on Statistical Learning and Data Science (SLDS 2024), Newport Beach, California November, 2024
- "Empirical Likelihood Inference for Functional Mean Models with Application to Human Cognitive Impairment", The 7th International Conference on Econometrics and Statistics (EcoSta 2024), Beijing, China July, 2024
- "Empirical Likelihood Based Efficient Semiparametric Inference for Longitudinal Data with Application to GAW 18 Data", 2024 ICSA China Conferences, Wuhan, China June, 2024
- "Empirical Likelihood Based Efficient Inference for Sparse Functional Data Accounting for Within-Subject Correlation", Statistics Seminar, Department of Mathematics, Texas State University, Zoom April, 2024
- "Empirical Likelihood Based Efficient Inference for Sparse Functional Data Accounting for Within-Subject Correlation", Statistics Colloquium, Department of Mathematics and Statistics, University of Maryland Baltimore County (UMBC), Zoom April, 2024
- "Robust Estimation of Heterogeneous Treatment Effects",64th ISI World Statistics Congress, Ottawa, Canada July, 2023
- "Empirical Likelihood Inference for Functional Mean Models with Application to Human Cognitive Impairment",The 2023 ICSA Applied Statistics Symposium, Ann Arbor, Michigan June, 2023
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data", Department of Epidemiology & Biostatistics Seminar, University

of Arizona, Zoom November, 2022

- "Multivariate partial linear varying coefficients model for GxE studies with multiple longitudinal traits", The Department of Bioinformatics and Biostatistics Seminars, Zoom April 2022
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data",The 7th National Junior Statisticians' Workshop, Shanghai University of Finance and Economics or Virtual November, 2021
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data",The ICSA 2021 Applied Statistics Symposium, Virtual September, 2021
- "Multivariate partial linear varying coefficients model for GxE studies with multiple longitudinal traits", The ISI World Statistics Congress, Virtual July 2021
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data", SFASA Seminar, San Francisco Bay Area February, 2021
- "Robust Graph Change-point Detection for Brain Evolvement Study", AADS AI/ML & Natural Language Processing Community of Practice, Eli Lilly and Company, Indiana February, 2021
- "Multivariate partial linear varying coefficients model for GxE studies with multiple longitudinal traits", The ICSA 2020 Applied Statistics Symposium, Virtual December 2020
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data", The October Math Day Symposium, University of North Carolina Charlotte October, 2020
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data", Department of Statistics Seminar, University of Nebraska-Lincoln September, 2020
- "Robust Estimation of Heterogeneous Treatment Effect using Electronic Health Record Data", Department of Bioinformatics and Biostatistics Seminar, University of Louisville April, 2020
- "Robust Graph Change-point Detection for Brain Evolvement Study", ICSA Applied Statistics Symposium, Raleigh, North Carolina June, 2019
- "Robust Graph Change-point Detection for Brain Evolvement Study", Symposium on Data Science and Statistics, Bellevue, Washington May, 2019
- "Robust Graph Change-point Detection for Brain Evolvement Study", AMS Sectional Meeting-Special Session on Big Data and Statistical Analytics, San Francisco State University, San Francisco October, 2018
- "Robust Graph Change-point Detection for Brain Evolvement Study", 2018 ICSA China Conference with the Focus on Data Science, Qingdao July, 2018
- "Empirical Likelihood Ratio Tests for Coefficients in High Dimensional Heteroscedastic Linear Models", The 8th International Forum on Statistics, Renmin University of China, Beijing July, 2018
- "Robust Graph Change-point Detection for Brain Evolvement Study", College of Mathematics and Statistics, Hunan Normal University, Changsha June, 2018
- "Robust Graph Change-point Detection for Brain Evolvement Study", School of Statistics and Management, Shanghai University of Finance and Economics, Shanghai June, 2018
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", DMS Colloquium, Auburn University, Auburn, Alabama April, 2018
- "Empirical Likelihood Ratio Tests for Coefficients in High Dimensional Heteroscedastic Linear Models", Second Workshop on Higher-Order Asymptotics and Post-Selection Inference, Washington University in St. Louis August, 2017
- "Empirical Likelihood Ratio Tests for Coefficients in High Dimensional Heteroscedastic Linear Models", 2017 ICSA Applied Statistics Symposium, Chicago June, 2017

- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", Nonparametric Statistics Workshop, University of Michigan, Ann Arbor October, 2016
- "Testing Low-dimensional Coefficients in High Dimensional Heteroscedastic Linear Models", Joint Statistical Meetings, Chicago August, 2016
- "Testing Low-dimensional Coefficients in High Dimensional Heteroscedastic Linear Models", China Statistics Conference, Qingdao, China June, 2016
- "Testing Low-dimensional Coefficients in High Dimensional Heteroscedastic Linear Models", School of Public Health, Shangxi Medical University, Taiyuan, China June, 2016
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", Institute of Statistics, Zhejiang University, Hangzhou, China June, 2016
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", Institute of Statistics, Nankai University, Tianjin, China June, 2016
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", Big Statistics & Data Science Joint Conference, Renmin University of China, Beijing, China , May, 2016
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", School of Mathematical Sciences, Shanghai Jiaotong University, Shanghai, China, May, 2016
- "Provable Smoothing Approach in High Dimensional Generalized Regression Models", ENAR, Austin, Texas March, 2016
- "Provable Smoothing Approach in High Dimensional Generalized Regression Models", Statistics Seminar, Department of Mathematical Sciences, IUPUI, February, 2016
- "Unified empirical likelihood ratio tests for functional linear models and the phase transition from sparse to dense functional data", Joint Biostatistics Seminar, Department of Biostatistics, IUPUI, September, 2015
- "Testing Low-dimensional Coefficients in High Dimensional Heteroscedastic Linear Models", Statistics Seminar, Department of Mathematical Sciences, IUPUI, September, 2015
- "Unified empirical likelihood ratio tests for low dimensional inference in high dimensional linear models", ENAR, Miami, Florida March, 2015
- "Empirical Likelihood Meets Functional Data", Statistics Student Seminar, Michigan State University, October, 2014
- Statistics in Applications Forum (Poster), East Lansing, MI October 2013
- Quantitative Biology Graduate Program (Poster), East Lansing, MI August 2013
- "Empirical Likelihood for Testing Functions Constraint with Functional Data", Joint Statistical Meetings, Montreal, QC, Canada August, 2013
- "A powerful statistical method identifies novel loci associated with diastolic blood pressure triggered by nonlinear gene-environment interaction", Genetic Analysis Workshop (GAW18), Stevenson, WA October, 2012

Teaching Experience

Instructor at IU Indianapolis

Statistical Computing (STAT I521-21980)	Fall 2025
Statistical Modelling Using R and SAS (STAT I421-25884: Online)	Fall 2025
Applied Regression Analysis (STAT I512-21392)	Fall 2025
Introduction to Statistics (STAT35000-002: Purdue)	Spring 2025
Elementary Statistical Methods I (STAT I301-30056)	Spring 2025
Statistical Computing (STAT I521-23544)	Fall 2024
Statistical Modelling Using R and SAS (STAT I421-25348)	Fall 2024
Statistical Modelling Using R and SAS (STAT I421-31476: Online)	Fall 2024
Applied Regression Analysis (STAT I512-22763)	Fall 2024

Introduction to Statistics (STAT35000-17129) Spring 2024
Advanced Statistical Learning (STAT59800-21650) Spring 2024
Statistical Computing (STAT52100-23707) Fall 2023
Statistical Modelling Using R and SAS (STAT42100-25647) Fall 2023
Applied Regression Analysis (STAT51200-22876) Fall 2023
Introduction to Statistics (STAT35000-23128) Spring 2023
Introduction to Statistics (STAT35000-23879) Spring 2023
Introduction to Statistics (STAT35000-10577) Summer 2022
Statistical Inference (STAT51700-19440) Spring 2022
Introduction to Statistics (STAT35000-20482) Spring 2022
Statistical Computing (STAT52100-34676) Fall 2021
Statistical Modelling Using R and SAS (STAT42100-37059) Fall 2021
Introduction to Statistics (STAT35000-38466) Fall 2021
Introduction to Statistics (STAT35000-11056) Summer 2021
Statistical Inference (STAT51700-21962) Spring 2021
Introduction to Statistics (STAT35000-22554) Spring 2021
Statistical Computing (STAT52100-24694) Fall 2020
Statistical Modelling Using R and SAS (STAT42100-27317) Fall 2020
Introduction to Statistics (STAT35000-28998) Fall 2020
Introduction to Statistics (STAT35000-11121) Summer 2020
Statistical Inference (STAT51700-20616) Spring 2020
Statistical Theory (STAT41700-20611) Spring 2020
Introduction to Statistics (STAT35000-21296) Spring 2020
Statistical Computing (STAT52100-24302) Fall 2019
Statistical Modelling Using R and SAS (STAT42100-27207) Fall 2019
Introduction to Statistics (STAT35000-30888) Fall 2019
Statistical Inference (STAT51700-21724) Spring 2019
Introduction to Statistics (STAT35000-22480) Spring 2019
Statistical Computing (STAT52100-22838) Fall 2018
Statistical Modelling Using R and SAS (STAT42100-26037) Fall 2018
Introduction to Statistics (STAT35000-25873) Fall 2018
Statistical Inference (STAT51700-22537) Spring 2018
Introduction to Statistics (STAT35000-23995) Spring 2018
Statistical Computing (STAT52100-22940) Fall 2017
Statistical Modelling Using R and SAS (STAT42100-26466) Fall 2017
Introduction to Statistics (STAT35000-26266) Fall 2017
Advanced Statistical Inference—Nonparametric Regression (STAT62800-31654) Spring 2017
Applied Regression Analysis (STAT51200-21329) Fall 2016
Introduction to Statistics (STAT35000-22433) Fall 2016
Introduction to Statistics (STAT35000-24592) Spring 2016
Introduction to Statistics (STAT35000-23646 and STAT35000-24842) Fall 2015

Instructor at MSU
Intro-Stats (STT200) Summer 2012
Intro Prob & Stat for Business (STT315) Summer 2013

Teaching Assistant at MSU
Intro-Stats (STT200) Fall 2012
Intro Prob & Stat for Business (STT315) Fall 2013

Service

National:

Committee Member of the 2025 JSM Biometrics Byar Award and Early Career Paper Awards selection committee Nov 2024-Jan 2025
NSF panelist of the Division of Mathematical Sciences, NSF April 2023
Faculty advisor of IU Indianapolis ASA Student Chapter Fall 2018 – present

Local:

Department Graduate Committee member at IU Indianapolis Fall 2025 – present

Department Student Recruitment Committee member at IU Indianapolis Fall 2025 – present

IU Indianapolis School of Sciences International Affairs Committee Member Oct 2024 – present

Department Scholarships & Awards Committee at IU Indianapolis Fall 2022 – present

Committee member of Data Science Master Program at IU Indianapolis Fall 2019 – present

Exam committee member for the Applied Statistics Master comprehensive exam and Biostatistics PhD qualify exam at IU Indianapolis Fall 2015 – present

Organizer of Statistics Seminar at IU Indianapolis Spring 2018 – present

Chairman of Statistics Student Seminar, Department of Statistics and Probability, Michigan State University Sep. 2011 – Dec. 2013

Professional:

Reviewer for the following journals

- Atmosphere
- Bioinformatics
- Bioinformatics Advances
- Biostatistics & Epidemiology
- BMC Genomics
- BMC Medical Research Methodology
- BMC Genomic Data
- Brain and Behavior
- Brazilian Journal of Probability and Statistics
- Communication in Statistics-Simulation and Computation
- Computational Statistics and Data Analysis
- Econometrics and Statistics
- Electronic Journal of Statistics
- Evolving Systems
- Frontiers in Genetics
- Frontiers in Systems Biology
- Heliyon
- IEEE Transactions on Cybernetics
- Journal of the American Statistical Association
- Journal of Applied Statistics
- Journal of Computational and Applied Mathematics
- Journal of Computational and Graphical Statistics
- Journal of Korean Statistical Society
- Journal of Multivariate Analysis
- Journal of Nonparametric Statistics
- Journal of Probability and Statistics
- Journal of Statistical Computation and Simulation
- Journal of Statistical Planning and Inference
- PLOS ONE
- Sankhya A
- Science Asia
- Stat
- Statistica Sinica
- Statistics and Probability Letters
- Statistical Analysis and Data Mining
- The Canadian Journal of Statistics

Conference Session Organization and Chairing

- "Innovations in Statistical Methods for Complex Dependence", CFE-CMStatistics

2025, Birckeck, University of London, 13-15 December 2025
- "Exploring New Frontiers in Causal Mediation Analysis", CFE-CMStatistics 2024, King's College London, 14-16 December 2024
- "Functional and High-dimensional Data Analysis: New Directions and Innovations", 64th ISI World Statistics Congress (2023), Ottawa, Canada
- "High Dimensional Statistical Modelling of Genetics/Genomics", ICSA 2019 Applied Statistics Symposium at Raleigh in NC
- "Recent Advances in Functional Data Analysis", ICSA 2019 Applied Statistics Symposium at Raleigh in NC
- "Statistical Learning Advancement for Inference in Big Data Age", ICSA 2019 Applied Statistics Symposium at Raleigh in NC
- "Methodological Advancement in High Dimensional Data Analysis", ICSA 2019 International Conference at Hangzhou in China
- "Methodological Advances and Applications of Nonparametric Data Analysis", 2018 ICSA China Conference at Qingdao in China.

Workshops

- "2021 NISS Writing Workshop for Junior Researchers", Aug. 6, 13, 2021, Virtual via Zoom.
- "Opening Workshop on Deep Learning", Aug. 12-16, 2019, SAMSI.
- "Applied Bioinformatics Workshop Inermediate", Jul.-Aug., 2013, Michigan State University.
- "Doing Bayesian Data Analysis Workshop", Sep. 14, 15, 2012, Michigan State University.
- "The 1000 Genomes Project Community Meeting", Jul. 12-13, 2012, University of Michigan.
- Bioinformatics Workshop for MSU Plant Breeding, Genetics, & Biotechnology Program, May 24-31, 2012, Michigan State University.
- "Introduction to the HPCC" and "Making Your Research Go Faster: Advanced HPCC", May 8-9, 2012, Michigan State University.

Computer Skills

- Statistical Software: R, Matlab, SAS, and Minitab
- Data and processing: Excel, Python and Latex
- Language: C, C++
- Operating system: Linux and Windows

Membership

- American Statistical Association
- Institute of Mathematical Statistics
- International Chinese Statistical Association
- International Biometric Society