

Wenguang Sun

Address: 401W Bridge Hall
Department of Data Sciences and Operations
Marshall School of Business
3670 Trousdale Pkwy
University of Southern California
Los Angeles, CA 90089-0809
Phone: (213) 740-0093; Fax: (213) 740-7313
Email: wenguans@marshall.usc.edu
Website: <https://wenguangsun.github.io>

Education:

- 2008 Ph.D., University of Pennsylvania.
Advisor: T. Tony Cai
2003 B.S., Peking University, China

Employment:

- | | |
|--------------|---|
| 2021-present | Professor
Department of Data Sciences and Operations
Marshall School of Business, University of Southern California |
| 2015-2021 | Associate professor
Department of Data Sciences and Operations
Marshall School of Business, University of Southern California |
| 2011-2015 | Assistant professor
Department of Data Sciences and Operations
Marshall School of Business, University of Southern California |
| 2008-2011 | Assistant professor
Department of Statistics
North Carolina State University |

Research Interests:

- Large-scale multiple testing and false discovery rate
- Integrative data analysis and transfer learning
- Nonparametric empirical Bayes methods
- Shrinkage estimation theory
- Statistical decision theory
- Conformal inference

Awards and Honors:

- | | |
|------|---|
| 2021 | Dean's Award for Research Excellence (Awarded to 2 out of all research faculty in the Marshall School of Business). |
| 2020 | Research Grant. National Science Foundation. |
| 2018 | Discussion Paper. Royal Statistical Society. |
| 2017 | Research Grant. National Science Foundation. |
| 2013 | CAREER Award. National Science Foundation. |
| 2013 | Dean's Award for Research Excellence (Awarded to 3 out of all research faculty in the Marshall School of Business). |

- 2010 Research Grant. National Science Foundation
- 2009 Saul Winegrad Outstanding Dissertation Award. University of
 Pennsylvania
- 2007 ENAR Distinguished Student Paper Award.

Editorial Service:

- Associate Editor Journal of the Royal Statistical Society, Series B, 2017-Present.
- Associate Editor Journal of Multivariate Analysis, 2016-2019.

Grants and Contracts:

- 2020-2023 “Transfer Learning for Large-Scale Inference”. Division of mathematical sciences, National science foundation. PI. \$120K.
- 2017-2020 “Integrative Large-Scale Data Analysis and Statistical Inference”. Division of mathematical sciences, National science foundation. PI. \$100K.
- 2013-2018 “Simultaneous and sequential inference of high-dimensional data with sparse structure.” CAREER, Division of mathematical sciences, National science foundation. PI. \$400K.
- 2010-2013 “New theory and methodology for large-scale multiple testing.” Division of mathematical sciences, National science foundation. PI. \$200K.

Publications:

*indicates my students at USC

1. Gang, B.*, **Sun, W.**, and Wang, W* (2021). Structure–adaptive sequential testing for online false discovery rate control. *Journal of the American Statistical Association*, to appear.
2. Du, L., Guo, X., **Sun, W.** and Zou, C. (2021). False discovery rate control under general dependence by symmetrized data aggregation. *Journal of the American Statistical Association*, to appear.
3. Banerjee, T.*, Liu, Q., Mukherjee, G., and **Sun, W.** (2020). A general framework for empirical Bayes estimation in the discrete linear exponential family. *Journal of the Machine Learning Research*, 22 (67), 1-46.
4. Banerjee, T.*, Mukherjee, G. and **Sun, W.** (2020). Adaptive sparse estimation with side information. *Journal of the American Statistical Association*, 115, 2053-2067.
5. Fu, L.*, Gang, B.*, James, G. and **Sun, W.** (2020). Heterocedasticity-adjusted ranking and thresholding for large-scale multiple testing. *Journal of the American Statistical Association*, to appear.
6. Cai, T., **Sun, W.** and Xia, Y. (2020). LAWS: a locally adaptive weighting and screening approach to spatial multiple testing. *Journal of the American Statistical Association*, to appear.
7. Xia, Y., Cai, T., and **Sun, W.** (2020). GAP: a general framework for information pooling in two-sample sparse inference. *Journal of the American Statistical Association*, 115, 1236-1250.

8. Cai, T., **Sun, W.** and Wang, W.* (2019). Covariate-assisted ranking and selection for large-scale two-sample inference (with discussion). **Journal of the Royal Statistical Society, Series B**, Vol. 87, 187-234.
9. Cai, T., **Sun, W.** and Wang, W.* (2019). Rejoinder to “Covariate-assisted ranking and selection for large-scale two-sample inference.” **Journal of the Royal Statistical Society, Series B**.
10. Gang, B.*, Mukherjee, G. and **Sun, W.** (2019). Large-scale shrinkage estimation under Markovian dependence. Book Chapter in IISA Series on Statistics and Data Science, 2020.
11. Feng, T.*, Basu, P.*, **Sun, W.**, and Mack, W. (2019). Control of false discovery rate and optimal design for high-throughput screening. **Statistics in Medicine**, 38, 2816-2827.
12. Basu, P.*, Cai, T., Das, K., and **Sun, W.** (2018). Weighted false discovery control in large-scale multiple testing. **Journal of the American Statistical Association**, Vol. 113, 1172-1183.
13. Cai, T., and **Sun, W.** (2017). Large-scale global and simultaneous inference: estimation and testing in very high dimensions. **Annual Review of Economics**, Volume 9, 411-439.
14. Cai, T., and **Sun, W.** (2017). Optimal discovery and screening for sparse signals with applications to multistage high-throughput studies. **Journal of the Royal Statistical Society, Series B**, 79, 197-223.
15. **Sun, W.**, and Wei, Z. (2015). Hierarchical recognition of sparse patterns in large-scale simultaneous inference. **Biometrika**, 102, 267-280.
16. **Sun, W.**, Reich, B., Cai, T., Guindani, M., and Schwartzman, A. (2015). False discovery control in large-scale spatial multiple testing. **Journal of the Royal Statistical Society, Series B**, 77, 59-83.
17. Cao, H., **Sun, W.**, Kosorok, M. (2013). The optimal power puzzle: scrutiny of the monotone likelihood ratio assumption in multiple testing. **Biometrika**, 100, 495-502.
18. **Sun, W.**, and McLain, A. (2012). Multiple testing of composite null hypotheses in heteroscedastic models. **Journal of the American Statistical Association**, 498, 673-687.
19. James, G., **Sun, W.**, and Qiao, X. (2012). Discussion of “Clustering random curves under dependence” by Serban and Jiang. **Technometrics**, 54, 123-126.
20. **Sun, W.**, and Wei, Z. (2011). Multiple testing for pattern identification, with applications to time-course microarray experiments. **Journal of the American Statistical Association**, 106, 73-88.
21. **Sun, W.**, Joffe, M., Chen, J., and Brunelli, S. (2010). Design and analysis of multiple events case-control studies, **Biometrics**, 66, 1220-1229.
22. **Sun, W.**, Wang, W., and Wei, Z. (2010). Simultaneous set-wise testing under dependence, with applications to genome-wide association studies. **Statistics and Its Interface**, 3, 501-511.
23. Cai, T., and **Sun, W.** (2010). A compound decision-theoretic approach to large-scale multiple testing. Book chapter for **Analysis of High Dimensional Data**, edited by Cai, T. and Shen, X..
24. Cai, T., and **Sun, W.** (2009). Simultaneous testing of grouped hypotheses: finding needles in multiple haystacks. **Journal of the American Statistical Association**, 104, 1467-1481.

25. Wei, Z., **Sun, W.**, Wang, K., and Hakonarson, H. (2009). Multiple testing in genome-wide association studies via hidden Markov models. ***Bioinformatics***, 25, 2802-2808.
26. **Sun, W.**, and Cai, T. (2009). Large-scale multiple testing under dependence. ***Journal of the Royal Statistical Society, Series B***, 71, 393-424.
27. Shults, J., **Sun, W.**, Tu, X., Kim, H., Amsterdam, J., and Ten Have, T. (2009). On choosing the working correlation structure in the GEE analysis of longitudinal binary data. ***Statistics in Medicine***, 28, 2338-2355.
28. **Sun, W.**, Shults, J., and Leonard, M. (2009). A note on the use of unbiased estimating equations to estimate correlation in GEE analysis of longitudinal trials. ***Biometrical Journal***, 51, 5-18.
29. **Sun, W.**, and Cai, T. (2007). Oracle and adaptive compound decision rules for false discovery rate control. ***Journal of the American Statistical Association***, 102, 901-912.
30. Mansson, R., Hennessy, S., **Sun, W.**, and Joffe, M. (2007). On the estimation and use of propensity scores in case-control and case-cohort studies. ***American Journal of Epidemiology***, 166, 332-339.
31. Tu, X., Zhang, J., Kowalski J., Shults J., Feng C., **Sun, W.**, Tan W. (2007). Power analyses for longitudinal study designs with missing data. ***Statistics in Medicine***, 26, 2958-2981.
32. Shults, J., **Sun, W.**, Tu, X., and Amsterdam, J. (2006). On the violation of bounds for the correlation in GEE analyses of binary data from longitudinal trials. ***BEPRESS***, University of Pennsylvania, Biostatistics Paper 8.

Working Papers

33. Gang, B.*, Shi, Y.*, and **Sun, W.** (2021). High dimensional Linear Discriminant Analysis: Locally Adaptive Shrinkage Estimation and False Selection Rate Control.
34. Rava, B.*, **Sun, W.**, James, G., Tong, X. (2021). A Burden Shared is a Burden Halved: A Fairness-Adjusted Approach to Binary Classification. Under Review.
35. Luo, J.*, Mukherjee, G., and **Sun, W.** (2021). Transfer learning for nonparametric empirical Bayes estimation: an integrative Tweedie approach. Under review.
36. Luo, J.*, Choi, Y., Mukherjee, G., and **Sun, W.** (2021). Structure adaptive sparse estimation for spatial signals: a false discovery rate thresholding approach.
37. Leung, D.*, and **Sun, W.** (2021). ZAP: z-value based, covariate-adaptive multiple testing procedures for controlling the false discovery rate. Under review.
38. Liang, C.*, Cai, T., **Sun, W.** and Xia, Y. (2021). Neighborhood-Empowered Adaptive Transfer Learning for Large-Scale Multiple Testing.
39. Banerjee, T.*, Fu, L.*, James, G. and **Sun, W.** (2020). Nonparametric empirical Bayes estimation on heterogeneous data. Under review.
40. Wang, W.*, and **Sun, W.** (2020). Sparse recovery with multiple data streams: a sequential adaptive testing approach. Under revision.

Presentations:

1. 12/15/21. Invited talk at the CMStatistics conference. London, UK.
2. 11/15/21. Invited seminar at the Department of Statistics, Oregon State University. Corvallis, OR.
3. 8/26/21. Invited talk at MCP conference, held virtually in Bremen, Germany.
4. 5/20/21. Invited talk at the IISA conference, held virtually in Chicago, IL.
5. 2/12/21. Invited virtual seminar. School of Mathematics Research, University of

- Bristol. UK.
6. 12/20/20. Invited talk at 13th International Conference on Computational and Methodological Statistics.
 7. 11/23/20. Invited online seminar. Department of Economics and Management. East China Normal University.
 8. 11/19/20. Invited online seminar. Department of Statistics. University of Georgia (Zoom).
 9. 6/4/20. Invited Discussant. International Seminar on Selective Inference (Zoom session).
 10. 12/20/19. Invited talk. ICSA Applied Statistics Symposium. Hangzhou, China.
 11. 12/15/19. Invited talk at the Multiple Comparison Conference. Taipei, Taiwan.
 12. 12/11/19. Invited seminar. Center of Statistics. National Tsinghua University. Hsinchu, Taiwan.
 13. 12/2/19. Invited seminar. Department of Statistics. University of Arizona. Tucson, AZ.
 14. 12/2/19. Invited seminar. TRIPODS seminar (Computer Science, Data Science and Applied Math). University of Arizona. Tucson, AZ.
 15. 7/30/19. Invited talk. Joint Statistical Meetings. Denver, CO.
 16. 7/4/19. Invited talk. ICSA China Conference. Nankai University. Tianjin, China.
 17. 6/25/19. Invited talk. The 3rd International Conference on Econometrics and Statistics. Taichung, Taiwan.
 18. 12/18/18. Invited seminar. School of Statistics and Economics. Shanghai University of Finance and Economics. Shanghai, China.
 19. 12/17/18. Invited talk at International Conference on Data Science. Fudan University. Shanghai, China.
 20. 12/12/18. Invited seminar at the Center for Data Science, Zhejiang University, Hangzhou, China.
 21. 12/10/18. Invited seminar at the Center for Statistical Science, Tsinghua University, Beijing, China.
 22. 12/4/18. Presentation at the Royal Statistical Society, Annual meeting of the research section. London, UK.
 23. 10/23/18. Invited seminar at the Department of Statistics, UC Riverside. Riverside, CA.
 24. 6/15/18. Invited talk at ICSA Applied Statistics Symposium, New Brunswick, NJ.
 25. 2/23/18. Invited seminar at USC Mathematics department. Los Angeles, CA.
 26. 12/18/17. Invited talk at International Conference on Data Science. Fudan University. Shanghai, China.
 27. 12/15/17. Invited seminar at the Department of Mathematics, Nankai University, Tianjin, China.
 28. 11/2/2017. Invited seminar at the Department of Mathematics, New Jersey Institute of Technology. Newark, NJ.
 29. 10/30/2017. Invited seminar at the Department of Statistics, University of Chicago. Chicago, IL.
 30. 8/22/2017. Invited talk at ICSA-Canada. Vancouver, Canada.
 31. 8/2/2017. Invited talk at Joint Statistical Meetings. Baltimore, MD.
 32. 7/10/2017. Invited talk at INFORMS-APS conference (Kellogg), Evanston, IL.
 33. 6/28/2017. Invited talk at ICSA Applied Statistics Symposium, Chicago, IL.
 34. 6/19/2017. Invited seminar at the Department of Information System, Business

- Statistics and Operation Management, Hong Kong University of Science and Technology.
35. 6/15/2017. Invited talk at International Conference on Statistics and Econometrics. Hong Kong.
 36. 12/21/2016. Invited talk at International Conference on Data Science. Shanghai, China.
 37. 12/19/2016. Invited talk at the 10th ICSA International Conference. Shanghai, China.
 38. 10/24/2016. Invited talk at USC Dornsife INET Conference on Big Data in Economics.
 39. 6/1/2016. Invited talk at Canadian Statistical Conference. St. Catharines, Ontario, Canada.
 40. 3/4/2016. Presentation at USC Marshall Research Fair.
 41. 11/13/2015. Invited talk at the Department of Information, Operation and Management department, Stern School of Business, NYU.
 42. 7/2/2015. Invited talk at the IMS-China International Conference on Statistics and Probability. Kunming, China.
 43. 6/27/2015. Invited talk at the Conference of High-Dimensional Statistics in the Age of Big Data. Beijing, China.
 44. 6/26/2015. Invited seminar. Capital University of Economics and Business, Beijing, China.
 45. 6/25/2015. Invited talk at the 10th International Conference on “Frontiers of Statistics.” Beijing, China.
 46. 6/15/2015. Invited talk at ICSA conference. Weighted False Discovery Rate Control in Large-scale Multiple Testing. Fort Collins, CO.
 47. June 2015. Invited talk at the IMS-China International Conference on Statistics and Probability. Beijing, China.
 48. 11/5/2014. Invited seminar in the department of Probability and Statistics at UCSB. Santa Barbara, CA.
 49. 7/9/2014. Invited talk at the Institute of Mathematical Statistics Annual meeting. False discovery control in large-scale spatial multiple testing. Sydney, Australia.
 50. 4/7/2014. Invited seminar at the Department of Statistics and Operations Research. False discovery control in large-scale spatial multiple testing. University of North Carolina at Chapel Hill.
 51. 3/9/2014. Invited talk at the ENAR conference. False discovery control in large-scale spatial multiple testing. Baltimore, MD.
 52. 12/4/2013. Invited seminar at the Department of Statistics, Wharton School, University of Pennsylvania. Multiple testing for pattern classification.
 53. 9/5/2013. Invited seminar at USC, Molecular & Computational Biology section. Multiple testing for pattern classification.
 54. 8/4/2013. Topic contributed talk at Joint Statistical Meetings. Simultaneous inference on a decision tree.
 55. 3/12/2013. Invited talk at the ENAR conference. Simultaneous inference on a decision tree.
 56. 10/5/2012. Invited talk at The International Conference on Advances in Interdisciplinary Statistics. False discovery control in large-scale spatial multiple testing. Greensboro, NC.
 57. 5/20/2012. Invited talk at FACM conference. False discovery control in large-scale spatial multiple testing. Newark, NJ.

58. 5/16/2012. Invited seminar at the Department of Biostatistics. University of Chicago. False discovery control under dependence. Chicago, IL.
59. 10/13/2011. Invited seminar at the Department of Statistics, University of Toronto. Some topics on multiple testing under dependence. Toronto, Canada.
60. 6/27/2011. Invited talk at ICSA Conference. Spatial multiple hypothesis testing. New York City.
61. 6/20/2011. Invited talk at WNAR Summer Meeting. Spatial multiple hypothesis testing. San Luis Obispo, CA.
62. 3/31/2011. Seminar at the Department of Statistics (Biostatistics seminar series), North Carolina State University. Large-scale multiple testing: a survey of recent developments and open problems. Raleigh, NC.
63. 3/24/2011. Invited seminar at the Department of Information and Operation Management, Marshall School of Business, University of Southern California. Large-scale multiple testing under dependence. Los Angeles, CA.
64. 1/5/2011. Invited seminar at the Department of Statistics, School of Mathematics, Peking University. Large-scale multiple testing under dependence. Beijing, China.
65. 12/20/2010. Invited talk at ICSA Applied Statistical Symposium. Large-scale multiple testing under dependence. Guangzhou, China.
66. 8/5/2010. Invited talk at Joint Statistical Meetings. A false important discovery approach to testing large non-null effects. Vancouver, Canada.
67. 7/27/2010. Invited talk at the ASA New Researcher's Conference. Optimal screening for sparse signals. Vancouver, Canada.
68. 6/22/2010. Invited talk at ICSA Conference. Optimal screening for sparse signals. Indianapolis, IA.
69. 3/22/2010. Invited talk at ENAR Spring Meeting. Optimal screening for sparse signals. New Orleans, LA.
70. Invited talk at the Department of Biostatistics, University of North Carolina at Chapel Hill. Chapel Hill, NC.
71. 2/29/2008. Invited seminar at the Department of Statistics, Harvard University. Compound decision theory for large-scale multiple testing.
72. 2/27/2008. Invited seminar at the Department of Biostatistics, Boston University. Compound decision theory for large-scale multiple testing.
73. 2/22/2008. Invited seminar at the Department of Statistics, Brown University. Compound decision theory for large-scale multiple testing.
74. 2/14/2008. Invited seminar at the Department of Biostatistics and Medical Informatics, University of Wisconsin. Compound decision theory for large-scale multiple testing.
75. 2/5/2008. Invited seminar at the School of Statistics, University of Minnesota. Compound decision theory for large-scale multiple testing.
76. 1/31/2008. Invited seminar at the Department of Statistics, Rutgers University. Compound decision theory for large-scale multiple testing.
77. 1/28/2008. Invited seminar at the Department of Biostatistics, University of Iowa. Compound decision theory for large-scale multiple testing.
78. 1/24/2008. Invited seminar at the Department of Biostatistics, University of Michigan. Compound decision theory for large-scale multiple testing.
79. 1/14/2008. Invited seminar at the Department of Statistics, North Carolina State University. Compound decision theory for large-scale multiple testing.

Teaching

DSO 621: PhD Research Forum (coordinator). 2017-present

GSBA 524: Applied Managerial Statistics (MBA, Full Time Core)

- Fall 2021 (Term 3)
- Fall 2020 (Terms 2 & 3)
- Fall 2019 (Term 2)
- Fall 2018 (Term 2)

GSBA 506 A & B: Applied Managerial Statistics (MBA, PM Core)

- Spring 2017 (2 sections)
- Spring 2018 (2 sections)

BUAD 310 Applied Business Statistics.

- Spring 2012 (3 sections)
- Fall 2012 (3 sections)
- Spring 2014 (2 sections)
- Spring 2015 (8 sections)
- Spring 2016 (6 sections)

USC PhD and Postdoc mentoring:

1. Pallavi Basu (co-advisor, joint with Jinchi Lv)
Statistics PhD student (DSO). Graduated in 2016.
Current position: Assistant Professor, Indian School of Business.
2. Tao Feng (co-advisor, joint with Wendy Mack)
Ph.D. student in the Biostatistics Division. Graduated in 2016.
Current position: Senior Statistician at the City of Hope (Cancer Center), Duarte, CA.
3. Luella Fu (co-advisor, joint with Gareth James)
Statistics PhD student (DSO). Graduated in 2018.
Current position: Assistant Professor, San Francisco State University.
4. Weinan Wang (advisor)
Statistics PhD student (DSO). Graduated in 2018.
Current position: Applied Research Scientist, Snap. Inc.
5. Dennis Leung (advisor).
Postdoc, 2017-2019.
Current position: Assistant Professor, University of Melbourne.
6. Bowen Gang (co-advisor, joint with Stas Minsker)
Mathematics PhD student (Dornsife). Graduated in 2020.
Current position: Assistant Professor, School of Management, Fudan University.
7. Trambak Banerjee (co-advisor, joint with Gourab Mukherjee)
Statistics PhD student. Graduated in 2020.
Current position: Assistant Professor, School of Business, The University of Kansas.
8. Jinting Liu (co-advisor, joint with Jay Bartroff)
5th year Mathematics PhD student (Math Department, Dornsife)
9. Jiajun Luo (co-advisor, joint with Stas Minsker)
5th year PhD student in Math
10. Cora Z. Liang (co-advisor, joint with Jay Bartroff)

2nd year PhD student in Math

Dissertation Committee Members:

1. Lidan Tan, Economics Department, 2019-2021.
2. Simeng Shao, DSO department. 2019-2021.
3. Lang Wang, Mathematics Department, 2018-2021.
4. Josh Derenski, DSO department, 2018-2020.
5. Fan Yang, Economics Department, 2016-2018.
6. Zhaoyang Tian, Department of Statistics and Actuarial Science, U Waterloo, 2019-2020.
7. Bradley Rava. DSO Department. 2020-present.
8. Mohammad Mehrabi, DSO Department, 2020-present.

USC Undergraduate mentoring:

1. Yidan Geng (Senior, Marshall school of business)
Project: Measuring luck and false discoveries in mutual fund performance
2. Ellen Zhang (Senior, Marshall school of business)
Project: Football analytics: winning rates and playoff odds

On-Campus Services:

University of Southern California

- Academic Integrity Review Panel, 2021
- Faculty mentor for Matteo Sesia, 2020-present
- Lead Faculty, Full-Time MBA Core, Fall 2020, Terms 2 and 3
- PEG Committee for tenure promotion (T. Sun), 2020
- **PhD Program Coordinator (Data Sciences and Operations Department), 2018-2021**
- Marshall PhD Committee, 2017-2021
- PEG Committee for Fourth-Year Review (A. Javamard), 2019
- PEG Committee for Fourth-Year Review (T. Sun), 2018
- Faculty Advisor (MBA), Adobe Analytics Competition, Fall 2018
- **DSO UCAR Review Committee Chair, 2018**
- **Statistics PhD Program Coordinator, 2015-2018**
- Faculty Mentor for Jacob Bien 2017-2018
- Faculty Judge, the MBA.PM Case Competition, 2017
- PEG Chair for Fourth-Year Review (X. Tong), 2016
- Statistics Faculty Recruiting Chair: 2016-2017
- Statistics Faculty Recruiting Chair: 2015-2016
- Information System Recruiting Committee, 2015-2016
- Faculty Advisor, LA City Projects, 2015-2016
- **BUAD 310 (Business Statistics) Coordinator, 2015-2016**
- Graduate Instruction Committee, 2015-2016
- Statistics PhD Workshop Organizer, 2015
- Statistics Seminar Coordinator, 2011-2015

North Carolina State University

- Department Search Committee 2010
- Department Seminar Committee 2009
- Master Oral Exam Committee 2008-2010

Synergistic Activities and Professional Services:

- Associate Editor, Journal of the Royal Statistical Society, Series B, 2017-Present.
- Associate Editor, Journal of Multivariate Analysis, 2016-2019.
- Panelist for Statistics Section, Division of Mathematical Sciences, National Science Foundation. 2021.
- Panelist for Statistics Section, Division of Mathematical Sciences, National Science Foundation. 2018.
- Program Chair for ICSA session (invited, topic contributed and contributed sessions), Joint Statistical Meetings, Vancouver, 2018.
- Program Chair for Institute of Mathematical Statistics (IMS) session, Joint Statistical Meetings, Baltimore, 2017.
- Program Committee, EcoStat conference, 2019-2020.
- Program Committee, INFORMS conference in Applied Probability and Statistics (APS), 2019.
- Elections Committee for the Southern California Chapter of the ASA, 2016-2020.
- Program Committee, International Chinese Statistical Association (ICSA), 2017-2019.
- Organizer for an invited session for CMStatistics 2021 (virtual conference), King's College London.
- Organizer for an invited session for EcoStat 2020, Seoul, South Korea.
- Organizer for an invited session for ICSA 2019, Xishuangbanna, China.
- Organizer of an invited session for the INFORMS-APS conference, 2019, Brisbane, Australia.
- Organizer for an invited session on false discovery rate and selective inference for Joint Statistical Meetings 2019, Denver, CO.
- Organizer for an invited session on large-scale multiple testing for the ICSA conference, 2017
- Organizer for an invited session on high-dimensional statistics, INFORMS Applied Probability Society Conference, Chicago, 2017.
- Organizer for an invited session on large-scale multiple testing and selective inference, JSM 2017
- Organizer for an invited session on multiple testing, 1st Fudan Conference in Data Sciences, 2016, Shanghai
- Organizer for an invited session on large-scale multiple testing and matrix analysis, IMS meeting at Sydney, July 2014.
- Organizer for an invited session on large-scale multiple comparisons for the joint meeting of the 8th Bernoulli Society World Congress and the 75th Annual Meeting of

- the Institute of Mathematical Statistics. July 2012.
- Organizer for an invited session on analysis of large and high-dimensional data, SRCOS Meeting, June 2011.
 - Organizer for an invited session on high-dimensional statistics in genomic research, ICSA International Conference, Guangzhou, China. December 2010.
 - Organizer for an invited session on large-scale multiple testing, ICSA Applied Statistics Symposium, Indianapolis. June 2010.
 - Chairs for invited and contributed sessions at ENAR, JSM, ICSA, SRCOS, INFORMS-APS, IMS conferences and etc.
 - Referee for the following journals/conferences:
AISTATS conference, American Journal of Epidemiology, Annals of Statistics, Annals of Applied Statistics, Bernoulli, Biometrika, Biometrics, Biometrical Journal, Biostatistics, Communications in Statistics - Theory and Methods, Computational Statistics, Computational Statistics and Data Analysis, Electronic Journal of Statistics, Journal of Multivariate Analysis, Journal of the American Statistical Association (JASA)– Application and Case Studies; JASA - Theory and Methods, Journal of Nonparametric Statistics, Journal of the Machine Learning Research, Journal of the Royal Statistical Society-Series B, Journal of Statistical Planning and Inference, NeuroImage, Scandinavian Journal of Statistics, STAT, Statistics in Medicine, NIPS, Scandinavian Journal of Statistics, Statistical Surveys, Statistica Sinica, Statistical Science, Statistics and Its Interface, Statistics and Probability Letters, TEST.