May 10, 2023

CURRICULUM VITAE

Fan Li

Department of Statistical Science
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EDUCATION

2006	Ph.D., Biostatistics, Johns Hopkins University
2001	B.Sc., Mathematics, Peking University, China

POSTDOCTORAL TRAINING

2006-2008	Postdoctoral Fellow in Statistics Department of Health Care Policy, Harvard Medical School

PRIMARY ACADEMIC APPOINTMENT

(All in Department of Statistical Science, Duke University)

2021-present	Professor
2015-2021	Associate Professor
2008-2015	Assistant Professor

SECONDARY ACADEMIC APPOINTMENT

2021-present	Professor Department of Biostatistics and Bioinformatics, Duke University
2017-2021	Associate Professor Department of Biostatistics and Bioinformatics, Duke University
2018-present	Co-director Program for Comparative Effectiveness Methodology, Duke Clinical Research Institute
2017-present	Affiliated Faculty Duke Clinical Research Institute

HONORS AND AWARDS

2022 Fellow, American Statistical Association

PUBLICATIONS

Peer-reviewed Articles

(* student or postdoc supervised by FL)

1. **Li F**, and Frangakis CE (2005). Designs for partially controlled studies: Messages from a review. *Statistical Methods in Medical Research*, 14, 417-431.

2. **Li F**, and Frangakis CE (2006). Polydesigns and causal inference. *Biometrics*, 62(2), 343-351.

3. Baccini M, Cook S, Frangakis CE, **Li F**, Mealli F, Rubin DB, and Zell EZ. (2010). Multiple imputation in the Anthrax Vaccine Research Program. *Chance*, 23(2), 16-23.

4. **Li F**, Green JG, Zaslavsky AM, and Kessler R. (2010). Estimating prevalence of serious emotional disturbance in schools using a brief screening scale. *International Journal of Methods in Psychiatric Research*, 19 (Supplement 1), 88-98.

5. **Li F**, and Zhang NR. (2010). Bayesian variable selection in structured high-dimensional covariate spaces with applications in genomics. *Journal of the American Statistical Association*, 105(491), 1202-1214.

6. **Li F**, and Zaslavsky AM. (2010). Using a short screening scale for small-area estimation of mental illness prevalence for Schools. *Journal of the American Statistical Association*, 105(492), 1323-1332.

7. Schwartz SL*, **Li F**, and Mealli F. (2011). A Bayesian semiparametric approach to intermediate variables in causal inference. *Journal of the American Statistical Association*, 106(496), 1331-1344.

8. Go VF, Frangakis CE, Nam LV, Sripaipan T, Bergenstrom A, **Li F**, Latkin, C, Celentano, DD, and Quan, VM. (2011). Characteristics of high risk HIV-positive IDUs in Vietnam: implications for future interventions. *Substance Use and Misuse*, 46(4), 381-389.

9. Schwartz SL*, **Li F**, and Reiter JP. (2012). Sensitivity analysis for unmeasured confounding in principal stratification. *Statistics in Medicine*, 31(10), 949-962.

10. Zhang T, **Li F**, Beckes L, Brown C, and Coan JA. (2012). Nonparametric inference of hemodynamic response using multi-subject fMRI data. *NeuroImage*, 63, 1754-1765.

11. Zhang T, **Li F**, Beckes L, and Coan JA. (2013). A semi-parametric model of the hemodynamic response for multi-subject fMRI data. *NeuroImage*, 75, 136-145. (featured in NSF highlight 24408 "Reach out and touch someone")

12. **Li F**, Zaslavsky AM, and Landrum MB. (2013). Propensity score weighting with multilevel data. *Statistics in Medicine*, 32(19), 3373-3387.

13. Mattei A, **Li F**, and Mealli F. (2013). Exploiting multiple outcomes in Bayesian principal stratification analysis with application to the evaluation of a job training program. *Annals of Applied Statistics*, 7(4), 2336-2360.

14. Liu F, Chakraborty S, **Li F**, Liu Y, and Lozano AC. (2014). Bayesian regularization via Graph Laplacian. *Bayesian Analysis*, 9(2), 449-474.

15. Zhang T, **Li F**, Gonzalez M, Maresh E, and Coan JA. (2014). A semi-parametric nonlinear model for event-related fMRI. *NeuroImage*, 97, 178-187.

16. **Li F**, Baccini, M, Mealli, F, Zell, EZ, Frangakis, CE, and Rubin, DB. (2014). Multiple imputation by ordered monotone blocks with application to the Anthrax Vaccine Research Program. *Journal of Computational and Graphical Statistics*. 23(3), 877-892.

17. **Li F**, and Mealli, F. (2014). A conversation with Donald B. Rubin. *Statistical Science*. 29(3), 439-457.

18. Mercatanti, A, and **Li F**. (2014). Do debit cards increase household spending? Evidence from a semiparametric causal analysis of a survey. *Annals of Applied Statistics*. 8(4), 2405-2508.

19. Schliep, EM, Dong, Q, Gelfand, AE, and **Li F**. (2014). Modeling individual tree growth fusing diameter tape and increment core data. *Environmetrics*. 25(8), 610-620.

20. Mercatanti, A, **Li F**, and Mealli, F. (2014). Improving inference of Gaussian mixtures using auxiliary variables. *Statistical Analysis and Data Mining*. 8(1), 34-48.

21. Zhang, T, Wu, J, **Li F**, Boatman-Reich, D, and Caffo, B. (2015). A Directional dynamic model for effective brain connectivity using electrocorticographic (ECoG) time series. *Journal of the American Statistical Association*. 110(509), 93-106.

22. **Li F**, Zhang T, Wang Q, Gonzalez M, Maresh E, and Coan JA. (2015). Spatial Bayesian variable selection and grouping in high-dimensional scalar-on-image regressions. *Annals of Applied Statistics*. 9(2), 687-713.

23. **Li F**, Mattei A, and Mealli F. (2015). Evaluating the effect of university grants on student dropout: Evidence from a regression discontinuity design using Principal Stratification. *Annals of Applied Statistics*. 9(4), 1906-1931.

24. Mercatanti A, and **Li F**. (2017). Do debit cards decrease cash demands?: Causal inference and sensitivity analysis using Principal Stratification. *Journal of Royal Statistical Society - Series C (Applied Statistics)*. 66(4), 759-776. (selected by the Royal Statistical Society (RSS) editors to present at the 2018 RSS Conference)

25. Akande O*, **Li F**, and Reiter JP. (2017). An empirical comparison of multiple imputation methods for categorical data. *American Statistician*. 71(2), 162-170.

26. Wang F, Wang J, Gelfand AE, and **Li F**. (2017). Accommodating the ecological fallacy in disease mapping in the absence of individual exposures. *Statistics in Medicine*. 36, 4930-4942.

27. Brennan JM, Thomas LE, et al., **Li F**, E Petersen. (2017). Transcatheter Versus Surgical Aortic Valve Replacement: Propensity-Matched Comparison. *Journal of American College of Cardiology*. 70, 439-450.

28. **Li F**, Morgan KL, and Zaslavsky AM. (2018). Balancing covariates via propensity score weighting. *Journal of the American Statistical Association*. 113(521), 390-400.

29. Ding P, and **Li F**.(2018). Causal inference: a missing data perspective. *Statistical Science*. 33(2), 214-237.

30. Kaufman BG, Klemish D, Kassner C, Reiter JP, **Li F**, Harker M, O'Brien EC, Taylor D, Bhavsar N. Predicting Length of Hospice Stay: An Application of Quantile Regression. (2018). *Journal of Palliative Medicine*. 21 (8), 1131-1136.

31. Arnold SV, Cohen DJ, Dai D, Jones PG, **Li F**, Thomas L, Baron SJ, Frankel NZ, Strong S, Matsouaka RA, Edwards FH, Brennan JM. (2018). Predicting Quality of Life at 1 Year after Transcatheter Aortic Valve Replacement in a Real-World Population. *Circulation: Cardiovascular Quality and Outcomes*. 11(10), e004693.

32. Wang F, Wang J, Gelfand AE, and **Li F**. (2019). Disease mapping with generative models. *American Statistician*. 73(3), 212-223.

33. Li F*, Thomas LE, and **Li F**. (2019). Addressing extreme propensity scores via the overlap weights. *American Journal of Epidemiology*. 188(1), 250-257.

34. Ding P, and **Li F**.(2019). A bracketing relationship between difference-in-differences and lagged-dependent-variable adjustment. *Political Analysis*. 27(4), 605-615.

35. Li F*, **Li F**. (2019). Double-robust estimation in difference-in-differences with an application to traffic safety evaluation. *Observational Studies*. 5, 1-20.

36. Li F*, **Li F**. (2019). Propensity score weighting for causal inference with multiple treatments. *Annals of Applied Statistics*. 13(4), 2389-2415. (an earlier version won JSM 2019 Biometrics Section student paper award)

37. Dong J*, Zhang J, Zeng S*, and **Li F**. (2020). Subgroup balancing propensity score. *Statistical Methods in Medical Research*. 29(3) 659–676.

38. Lu D, Guo F, **Li F**. (2020). Evaluating the causal effects of cellphone distraction on crash risk using propensity score methods. *Accident Analysis and Prevention*. 143, 105579.

39. Thomas LE, **Li F**, Pencina M. (2020). Using propensity score methods to create target populations in observational clinical research. *Journal of American Medical Association*. 323(5):466-467.

40. Thomas LE, **Li F**, Pencina M. (2020). Overlap weighting: a propensity score method that mimics attributes of a randomized clinical trial. *Journal of American Medical Association*. 323(23):2417-2418.

41. Rosenbaum S, Zeng S*, Campos FA, Gesquiere LR, Altmann J, Alberts SC, **Li F**, Archie EA. (2020). Social bonds do not mediate the relationship between early adversity and adult glucocorticoids in wild baboons. *Proceedings of the National Academy of Sciences*. 33: 20052-20062

42. Zeng S*, **Li F**, Ding P. (2020). Is being an only child harmful to psychological health?: Evidence from an instrumental variable analysis of China's One-Child Policy. *Journal of Royal Statistical Society - Series A*. 183(4), 1615-1635.

43. Lu D, Tao C, Chen J, **Li F**, Guo F, Carin L. (2020). Reconsidering generative objectives for counterfactual reasoning. *34th Conference on Neural Information Processing Systems (NeurIPS2020)*.

44. Zhang YN, Chen Y, Wang Y, **Li F**, Pender M, Wang N, Yan F, Ying XH, Tang SL, Fu CW. (2020). Reduction in healthcare services during the COVID-19 epidemic in China. *BMJ Global Health*. 5:e003421. doi:10.1136/bmjgh-2020-003421.

45. Zeng S*, Li F, Wang R, **Li F**. (2021). Propensity score weighting for covariate adjustment in randomized clinical trials. *Statistics in Medicine*. 40(4), 842-858.

46. **Li F**, Mercatanti A, Mäkinen T, Silvestrini, A. (2021). A regression discontinuity design for ordinal running variable: Evaluating Central Bank purchases of corporate bonds. *Annals of Applied Statistics*. 15(1), 304-322.

47. Zeng S*, Rosenbaum S, Archie E, Alberts S, **Li F**. (2021). Causal mediation analysis for sparse and irregular longitudinal data. *Annals of Applied Statistics*. 15(2), 747-767.

48. Assaad S, Zeng S*, Tao C, Datta S, Mehta N, Henao R, **Li F**, Carin L. (2021). Counterfactual representation learning with balancing weights. *International Conference on Artificial Intelligence and Statistics 2021 (AISTAT)*. PMLR. 130: 1972-1980

49. Yang S*, Lorenzi E*, Papadogeorgou G*, Wojdyla D, **Li F**, Thomas LE. (2021). Propensity score weighting for causal subgroup analysis. *Statistics in Medicine*. 40:4294-4309. arXiv:2010.02121.

50. Yang S*, **Li F**, Thomas LE, Li F. (2021). Covariate adjustment in subgroup analyses of randomized clinical trials: A propensity score approach. *Clinical Trials*. 18(5). 570–581. (Finalist of Society of Clinical Trials (SCT) Thomas Chalmers Student Scholarship)

51. **Li F**, Tian Z, Bobb J, Papadogeorgou G, Li F. (2022). Clarifying selection bias in cluster randomized trials. *Clinical Trials*. 19(1), 33-41.

52. Zeng S*, **Li F**, Hu L, Li F. (2022). Propensity score weighting analysis for survival outcomes using pseudo observations. *Statistica Sinica*. Forthcoming. arXiv:2103.00605

53. Cheng C, **Li F**, Thomas LE, Li F. (2022). Addressing extreme propensity scores in estimating counterfactual survival functions via the overlap weights. *American Journal of Epidemiology*. 191(6), 1140-1151.

54. Wang Z*, Akande O, Poulos J*, **Li F**. (2022). Are deep learning models superior for missing data imputation in surveys?: Evidence from an empirical comparison. *Survey Methodology.* **48(2)**,375–399.

55. Zeng S*, Lange E, Campos F, Archie E, Alberts S, **Li F**. (2022). A Causal Mediation Model for Longitudinal Mediators and Survival Outcomes with an Application to Animal Behavior. *Journal of Biological, Environmental and Agricultural Statistics.* Forthcoming. arXiv:2104.08344.

56. Zhou T, Tong G, **Li F**, Thomas LE, Li F. (2022). PSweight: An R package for propensity score weighting analysis. *The R Journal.* 14(1):282-299.

57. Mäkinen T, **Li F**, Mercatanti A, Silvestrini, A. (2022). Causal analysis of central bank holdings of corporate bonds under interference. *Economic Modelling*. Forthcoming.

58. Papadogeorgou G*, Imai K, Lyall J, **Li F**. (2022) Causal inference with spatio-temporal data: Evaluating the effects of airstrikes on insurgent violence in Iraq. *Journal of Royal Statistical Society - Series B*. 84(5), 1969-1999. arXiv:2003.13555.

59. Li F, Tian Z, Tian Z, **Li F**. (2022). A note on identification of causal effects in cluster randomized trials with post-randomization selection bias. *Communications in Statistics – Theory and Methods*. Forthcoming.

60. Guo Q, Chen J, Wang D, Yang Y, Deng X, Carin L, **Li F**, Tao C*. (2022). Tight Mutual Information Estimation With Contrastive Fenchel-Legendre Optimization. *36th Conference on Neural Information Processing Systems (NeurIPS2022)*. arXiv:2107.01131

61. **Li F**, Ding P, Mealli F. (2023). Bayesian causal inference: a critical review. *Philosophical Transactions of the Royal Society A*. 381: 2022.0153.

62. Lange E, Zeng S*, Campos F, **Li F**, Tung J, Archie E, Alberts S. (2023). Early life adversity and adult social relationships have independent effects on survival in a wild animal model of aging. *Science Advances*. Forthcoming. bioRxiv https://doi.org/10.1101/2022.09.06.506810.

63. **Li F**, and Li F. (2023). Using propensity scores for racial disparities. *Observational Studies*. 9(1), 59-68.

Book Chapter

64. Zhang T, Sheng H, and **Li F**. (2016). Linear and Nonlinear Models for fMRI Time Series Analysis. *Handbook of Modern Statistical Methods: Neuroimaging Data Analysis*, Ombao H, Johnson W, Lindquist M, Aston J eds. Chapman and Hall - CRC Press.

65. **Li F**. (2022). Overlap weighting. *Handbook of Matching and Weighting Adjustments in Causal Inference*, J Zubizarreta, EA Stuart, D Small, PR Rosenbaum, eds. Chapman and Hall - CRC Press.

Discussions

66. Mealli F, and **Li F**. (2011). Discussion of "Transparent parametrization of models for potential outcomes" by Richardson, Evans and Robins. *Bayesian Statistics 9* (JM Bernardo, MJ Bayarri, JO Berger, AP Dawid, D Heckerman, AFM. Smith and M West eds.). Oxford University Press.

67. Papadogeorgou G*, and **Li F**. (2019). Discussion of "Penalized spline of propensity methods for treatment comparison" by Zhou, Elliot and Little. *Journal of the American Statistical Association*. 114(525):32-35.

68. Papadogeorgou G*, and **Li F**. (2020) Discussion of "Bayesian Regression Tree Models for Causal Inference: Regularization, Confounding, and Heterogeneous Effects" by Hahn, Murray and Carvalho. *Bayesian Analysis*. 15(3): 1007-1013.

Preprints

69. **Li F**, Yu Y, Rubin DB. (2012). Imputing missing data by fully conditional models: Some cautionary examples and guidelines. *Duke University Department of Statistical Science Discussion Paper 11-24*.

70. Zeng S*, Assaad S, Tao C, Carin L, **Li F**. (2021). Double-robust representation learning for causal inference. arXiv:2010.07866.

71. Chen J, Gan Z, et al., **Li F**, Carin L, Tao C*. (2021) Simpler, Faster, Stronger: Breaking The log-K Curse On Contrastive Learners With FlatNCE. arXiv:2107.01152.

72. Yang S*, Zhou R*, **Li F**, Thomas LE. (2023). Propensity Score Methods for Causal Subgroup Analysis with Time-to-Event Outcomes.

73. Liu B*, Wruck L, **Li F**. (2022). Principal stratification with time-to-event outcomes. arXiv:2301.07672

74. C-R Chang*, Song Y, **Li F**, Wang R. (2022). Covariate adjustment in randomized experiments with incomplete covariate and outcome data.

SOFTWARE PACKAGE

1. `PSweight` (2020): Propensity Score Weighting for Causal Inference. Tianhui Zhou, Guangyu Tong, Fan Li, Laine Thomas, Fan Li. `https://CRAN.R-project.org/package=PSweight`

2. `PStrata` (2022): Principal Stratification for Causal Inference. Bo Liu, Fan Li. `https://CRAN.R-project.org/package=PStrata`

GRANTS

1. Innovative Biostatistical Methods for Analysis and Assessment of Clinical Trials Augmented by Real World Data. Burroughs Wellcome Fund Innovation in Regulatory Sciences Award. 2021-2026. Role: Co-PI (PI: Laine Thomas). Total cost: $500,000.
2. COVID-19 Enhancement: Methods for the Design and Conduct of Subgroup Analysis in Observational Studies. PCORI ME-2018C2-13289, 2019-2023. Role: Co-I (PI: Laine Thomas). Total cost: $349,999.
3. New causal inference methods for cluster randomized trials with post-randomization selection-bias. PCORI ME-2019C1-16146, 2020-2023. Role: PI. Total cost: $946,222
4. Methods for the design and conduct of subgroup analysis in observational studies. PCORI ME-2018C2-13289, 2019-2022. Role: Co-I (PI: Laine Thomas). Total cost: $731,268
5. The biodemography of early adversity: social behavioral processes in a wild animal model. NIH 1R01 AG053308-01A1, 2018-2023. Role: Co-PI (PI: Susan Alberts). Direct cost: $1,542,592
6. A life course perspective on the effects of cumulative early adversity on health. NIH 1R01 AG053330-01A1, 2017-2022. Role: Co-PI (PI: Beth Archie). Total cost: $2,352,291
7. Religion, Spirituality and CVD Risks: A Focus on African Americans. NIH 5R01MD011606-02, 2017-2022. Role: Statistical Investigator (PI: Bentley-Edwards). Total cost: $2,831,644
8. Prospective Multicenter Observational Cohort Study of Comparative Effectiveness of Disease-Modifying Treatments for Myasthenia Gravis (MG). PCORI R-1609-35953, 2017-2020. Role: Statistical Investigator. (PI: Don Sanders). Total cost: $2,517,289
9. New weighting methods for causal inference. NSF-SES 1424688, 2014-2017. Role: PI. Total cost: $190,000.
10. Bayesian multivariate analysis for causal inference with intermediate variables. NSF-SES 1155697, 2012-2015. Role: PI. Total cost: $80,000.
11. Collaborative research: Statistical modeling and inference for high-dimensional multi-subject neuroimaging data. NSF-DMS 1208983, 2012-2015. Role: PI. Total cost: $71,100.
12. The Triangle Census Research Network. NSF-NCRN, 2011-2016. Role: Investigator (PI: Jerry Reiter).

MENTORING

Doctoral Advisees

Scott Schwartz	2010 Statistical Geneticist and Bioinformatics Scientist, Texas A&M University
Nghi Maggie Nguyen	2018 Research Scientist, Duke University Department of Neurology
Fan (Frank) Li	2019 (Biostatistics& Bioinformatics) Assistant Professor, Yale University Department of Biostatistics

Abbas Zaidi	2019 (co-advise with Sayan Mukerjee) AI researcher, Facebook
Elizabeth Lorenzi	2019 Statistical Scientist, Berry Consultants
Shuxi Zeng	2021 Research Scientist, Facebook
Siyun Yang	2022 (co-advise with Laine Thomas, B& B) Research Scientist, Facebook
Bo Liu	2021-
Yueqi Guo	2022-

Postdoctoral Mentees

Georgia Papadogeorgou	2018-2020 (co-advise with David Dunson) Assistant Professor, University of Florida Department of Statistics
Jason Poulos	2019-2021 Postdoctoral Fellow, Harvard Medical School Department of Health Care Policy
Chenyang Tao	2021 Applied Scientist, Amazon
Ruiwen Zhou	2021-2022 (co-advise with Laine Thomas)

Master Advisees

Ying Yang (Neurobiology, MS)	2011
Olanrewaju Akande (Statistical Science, MSEM)	2015
Eve Oh (Statistical Science MSEM)	2015
Shuo Wang (MSS), Joon Sup Park (MSS) Robert Wan (MIDS), Chengxin Yang (MSS)	2022

Undergraduate advisees

Colin Hwang	2011
Ekaterina Petrova	2012
Jack Fu	2013
Tracy Qi Dong	2014
Fiamma Li	2015
Anna Jiang	2016
Jerry Chia-Rui Chang	2019
Pei Yi Zhuo	2023

Doctoral thesis committee

2011 Hongxia Yang, Chiranjit Mukherjee
2012 Yajuan Si, Jochi Nakajima, Kai Cui
2013 Fangpo Wang, Jared Murray
2015 Monika Jincheng Hu, Tsuyoshi Kunihama
2016 Tracy Schifeling, Feifei Wang (Peking University)
2018 Victor Pena
2019 Olanrewaju Akande, Jodi Heck Wortman, Phil White
2020 Danni Lu (Virginia Tech)

Preliminary oral committee

2009 Hongxia Yang, Chiranjit Mukherjee, Minhui Shi
2010 Fangpo Wang, Yajuan Si, Jochi Nakajima
2011 Kai Cui
2012 Tsuyoshi Kunihama
2014 Michael Lindon
2015 Victor Pena
2016 Jody Heck Wortman, Elizabeth Lorenzi
2017 Kyle Burris, Abbas Zaidi, Olanrewaju Akande, Phil White
2019 Shuxi Zeng
2021 Serge Assaad

Master thesis committee

2010 Shouqiang Wang (Operational Research), Arturas Rozenas (Pol Sci)
2012 Yiting Deng (Computer Science)
2014 Yingjian Wang (ECE)
2019 Gauri Kamat, Yunji Zhou (B&B)
2020 Yangfan Ren
2021 Haoling Zheng, Marco Morucci (Pol Sci)
2022 Yi Liu (B&B)

Undergraduate thesis committee

2018 Andrew Cooper
2019 Vivek Sriram
2020 Daniel Spottiswood

TEACHING

(All in Department of Statistical Science, Duke University)

STA 130 Probability and Statistics in Engineering (2010F, 2012-14F, 2012S, 2015S)
STA 320 Design and Analysis of Causal Studies (2011F, 2014S, 2016S)
STA 440 Case Studies in the Practice of Statistics (2019F)

STA 610 Hierarchical models (2023F)
STA 611 Introduction to Mathematical Statistics (2008F)
STA 640 Causal Inference (2015F, 2017-18F, 2020F, 2021-2023S)
STA 723 Statistics Case Studies (2014-19S)
STA 732 Statistical Inference (2009-10S)
STA 790 Special Topics: Causal Inference (2009F), Bayesian Causal Inference (2022F)

PROFESSIONAL APPOINTMENTS AND SERVICE

Editorial Boards

2023-	Editor for Social Science, Biostatistics and Policy, *Annals of Applied Statistics*
2023-24	Guest Editor, Special Issue on "Causal Inference: past, present, and future" *The New England Journal of Statistics in Data Science (NEJSDS)*
2016-2023	Associate Editor, *Bayesian Analysis*
2019-	Associate Editor, *Observational Studies*
2020-	Associate Editor, *Journal of American Statistical Association - TM*
2016-2019	Associate Editor, *Journal of American Statistical Association - ACS*
2013-2017	Associate Editor, *Journal of Statistical Theory and Practice*
2018	Associate Editor, *The American Statistician* special issue on "Statistical inference in the 21th century"

Peer Review Activities

American Statistician, Annals of Applied Statistics, Annals of Internal Medicine, Bayesian Analysis, Biostatistics, Biometrics, Biometrika, BMC Research Methodology, BMJ, Canadian Journal of Statistics, Circulation, Computational Statistics and Data Analysis, Health Services and Outcomes Research Methodology, International Journal of Methods in Psychiatric Research, Journal of Causal Inference, Journal of Computational and Graphical Statistics, JAMA, JAMA Cardiology, JAMA Network Open, Journal of American Statistical Association, Journal of Applied Econometrics, Journal of Causal Inference, Journal of Royal Statistical Society (Series A, B, C), Journal of Statistical Planning and Inference, Neuroimage, Observational Studies, Psychometrika, Scandinavian Journal of Statistics, Statistical Methods in Medical Research, Statistica Sinica, Statistical Science, Statistics and Computing, Statistics in Medicine, Statistics and Probability Letters, Survey Methodology.

Grant Review Panel

National Science Foundation	2013, 2015, 2016, 2018
National Health Institute - BMRD	2016

Ad-hoc Review of Grant Proposals

Netherlands Organisation for Scientific Research (NWO)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Canadian Statistical Sciences Institute (CANSSI)
Health Effects Institute

Conference and Workshop Organizing

2013-14 Group leader, Causal Inference working group, SAMSI CMSS program
2015 Organizer, the G70 Conference: A Celebration of Alan Gelfand's 70th Birthday, Durham
2017 Organizer, NISS workshop on causal inference and machine learning/high dimensional statistics at Atlantic Causal Inference Conference (ACIC), UNC-Chapel Hill
2018 IMS Program Chair, ENAR spring meeting, Atlanta
2019 Organizer, Bayesian causal inference workshop, MBI, Ohio State University
2019 Organizer, Opening workshop of SAMSI Causal Inference Program, Duke University
2020 Organizer, SAMSI Causal Inference Program
2021-22 Member, ISBA 2022 World Meeting Program Committee

Professional Societies

2018, 20 Member, Nominating Committee, International Society for Bayesian Analysis (ISBA)
2019 Member, Selecting Committee for the founding co-editors of the IMS Data Science Journal
2022 Member, Mitchell Prize Selection Committee, ISBA

Promotion and External Reviews

2019- Promotion review (Yale, Peking, U Wisconsin at Madison, U Michigan)
2022 Member of External Review Panel of Department of Statistics and Data Science, Wharton School of Business, University of Pennsylvania

ACADEMIC SERVICE

Department of Statistical Science

2009-10, 17 First Year PhD Exam Coordinator
2009-16, 19-20 PhD Admissions Committee
2010-12 Seminar Series Coordinator
2013, 16- Master's Program Admissions Committee
2017 Master's Program Director
2017- Master's Program Advisory Committee
2018, 22 Tenure-Track Faculty Search Committee
2019 PhD Program Evaluation committee
2021 DST faculty search committee chair

Duke University

2014 Faculty compensation equity committee
2014-16 Academic Council
2017-22 Academic Program Committee (APC)
2018-19 Search Committee for Chair of Department of Biostatistics & Bioinformatics
2019-20 Search Committee for Executive Vice Chancellor at Duke Kunshan University
2020-21 Duke Strategy Team 2030 Faculty Group
2021 Duke 2030 Working Group on Research
2021-2023 Duke Kunshan University (DKU) Faculty Hearing Committee
2022 Review Committee of the Executive Vice Provost

PRESENTATIONS

Short Course and Tutorial

1. (2011) Short course on "Statistical Methods in Causal Inference". Finnish Society of Epidemiology. Helsinki, Finland.
2. (2017) Tutorial on propensity score methods in traffic safety research. Transportation Research Board Annual Meeting. Washington, DC.
3. (2017) Short course on "New weighting methods in comparative effectiveness research". Duke-Industry Statistics Symposium 2017. Durham, NC.
4. (2018) Tutorial on "Causal inference". Duke Plus Data Science, Durham, NC.
5. (2019) Short course on "Bayesian causal inference". Atlantic Causal Inference Conference, Montreal, Canada.
6. (2019) Tutorial on "Bayesian causal inference". Bayesian Causal Inference Workshop, Ohio State University, Columbus, OH.
7. (2020) Tutorial on "New weighting methods for comparative effectiveness research." International Conference on Health Policy Statistics 2020, San Diego, CA.
8. (2023) Tutorial on "Propensity score weighting for comparative effectiveness research: methods, new developments and software". International Conference on Health Policy Statistics 2023, Scottsdale, AZ.
9. (2023) Short course on "Bayesian causal inference". Applied Bayesian Summer School 2023, Florence, Italy.
10. (2023) Short course on "Causal inference". Columbia University, Department of Statistics.

Seminars

1. (2023) McGill University, Department of Epidemiology, Biostatistics and Occupational Health, Keynote speaker at Student Career Day
2. (2023) University of Cambridge, MRC Biostatistics Unit (virtual)
3. (2023) University of Michigan, Department of Statistics
4. (2022) Texas A&M University, Department of Statistics
5. (2022) Georgia Tech ISyE Statistics Seminars
6. (2022) DCRI Clinical Research Fellowship Program
7. (2022) Duke University Department of Philosophy Causation Group
8. (2022) Michigan State University Department of Statistics and Probability (virtual)
9. (2022) Online Causal Inference Seminar (OCIS) Series (virtual)
10. (2022) OHDSI Methods Working Group, UCLA
11. (2022) International Biometric Society Journal Club

12. (2022) Criteo AI lab (virtual)
13. (2021) Online interdisciplinary seminars on statistical methodology for social and behavioral research, University of Connecticut (virtual)
14. (2021) Duke University, Department of Population Health Sciences (virtual)
15. (2021) Harvard School of Public Health, Working Group on Causal Inference and Machine Learning (virtual)
16. (2021) University of Pennsylvania, Center for Causal Inference (virtual)
17. (2021) Carnegie Mellon University, Department of Statistics and Data Science (virtual)
18. (2021) Online Causal Inference Seminar (OCIS) Series (virtual)
19. (2020) Icahn School of Medicine at Mount Sinai, Institute for Translational Epidemiology (virtual)
20. (2020) University College London, Department of Statistical Science (virtual)
21. (2020) Duke University, Plus Data Science, COVID-19 Data Science Seminar (virtual)
22. (2020) University of Chicago, Department of Statistics
23. (2020) Vanderbilt University, Department of Biostatistics
24. (2019) University of Michigan, Department of Biostatistics
25. (2019) Brown University, Department of Biostatistics
26. (2019) University of Pennsylvania, Department of Statistics
27. (2018) University of Pennsylvania, Department of Biostatistics, Epidemiology and Informatics
28. (2018) Johns Hopkins Bloomberg School of Public Health, Department of Biostatistics
29. (2018) North Carolina State University, Department of Statistics
30. (2018) University of Texas School of Public Health, Department of Biostatistics and Data Science
31. (2018) SAS, Cary, NC
32. (2017) Virginia Tech, Department of Statistics
33. (2016) University of California, Berkeley, Department of Statistics, Neyman Seminar
34. (2016) Duke University, Comparative Effectiveness Research Program
35. (2016) Duke Clinical Research Institute, Duke University
36. (2016) University of Maryland at Baltimore, Department of Mathematics
37. (2015) Tsinghua University (China), Center for Statistical Science
38. (2015) University of Turku (Finland), Department of Mathematics
39. (2015) University of North Carolina at Chapel Hill, Causal inference research group
40. (2014) University of North Carolina at Chapel Hill, Department of Biostatistics
41. (2013) Durham Veterans Administration, Division of Health Services Research and Development

42. (2013) Cornell University, Weill Medical College, Department of Public Health, Division of Biostatistics and Epidemiology
43. (2013) Collegio Carlo Alberto, University of Turin, Italy
44. (2012) University of Florence, Department of Statistics, Italy
45. (2012) University of North Carolina at Chapel Hill, Center for Developmental Science
46. (2012) Ohio State University, Department of Statistics
47. (2012) IBM Watson Research Center
48. (2012) Columbia University, Department of Psychiatry, Division of Biostatistics
49. (2011) University of Pennsylvania, Department of Statistics
50. (2011) University of North Carolina at Chapel Hill, Causal inference research group
51. (2011) University of Virginia, Department of Statistics
52. (2011) Brown University, Center for Statistical Sciences
53. (2008) Duke University, Department of Statistical Science
54. (2008) University of Maryland at College Park, Department of Epidemiology and Biostatistics
55. (2008) University of North Carolina at Chapel Hill, Department of Biostatistics
56. (2007) Fox Chase Cancer Center, Biostatistics Facility
57. (2006) Harvard University, Department of Health Care Policy
58. (2006) Group Health Cooperative, Center of Health Studies
59. (2006) University of Chicago, Department of Health Studies
60. (2006) University of Pittsburgh, Department of Statistics
61. (2006) Ohio State University, Department of Statistics

Invited Conference Presentations

1. (2023) ENAR Spring Meeting, Nashville, TN
2. (2022) BAYES2022 - Bayesian Biostatistics Conference, Bethesda, MD
3. (2022) JSM 2022, Washington DC
4. (2022) ISBA World Meeting, 2022, Montreal, Canada
5. (2022) Workshop on Complex Data with Missingness, Measurement Errors, and High Dimensionality, Banff International Research Station (virtual)
6. (2021) Workshop on Computational Advertising, Banff International Research Station (virtual)
7. (2021) Pacific Causal Inference Conference (PCIC) 2021 (virtual)
8. (2021) JSM 2021 (virtual)
9. (2021) ISBA 2021 World Meeting (virtual)

10. (2021) SAMSI Opening Workshop on Data Science in the Social and Behavioral Sciences (virtual)
11. (2020) SAMSI Games, Decisions, Risk and Reliability (GDRR) Program Transportation Workshop, Durham, NC
12. (2019) Translating Duke Health Immunology & Transplant Initiative Symposium, Duke University, Durham.
13. (2019) JSM, Denver, CO
14. (2019) ICSA China Conference, Tianjin, China
15. (2019) Atlantic Causal Inference Conference 2019, Montreal, Canada
16. (2019) ENAR Spring Meeting, Philadelphia, PA
17. (2019) University of Florida, Gainsville. UF Winter Statistics Workshop.
18. (2018) JSM, Vancouver, Canada
19. (2018) Conference on Evidence and the Individual Patient: Understanding Heterogeneous Treatment Effects for Patient-Centered Care. National Academy of Medicine, Washington, DC
20. (2018) Webinar, Predictive Analytics and Comparative Effectiveness (PACE) Center, Tufts Medical Center.
21. (2018) ENAR Spring Meeting. Atlanta, GA
22. (2017) International Workshop on Objective Bayes Methodology (O-Bayes17). Austin, TX
23. (2017) SAMSI summer workshop on transportation statistics, Durham, NC
24. (2017) Joint Statistical Meeting, Baltimore, MA
25. (2017) European Meeting of Statisticians, Helsinki, Finland
26. (2017) Atlantic Causal Inference Conference 2017, UNC-Chapel Hill
27. (2016) University of Columbia, Department of Statistics, Causal Inference Conference
28. (2016) Fourth International Conference on the Interface between Statistics and Engineering, Palermo, Italy
29. (2016) ISBA 2016 World Meeting, Sardinia, Italy
30. (2016) Atlantic Causal Inference Conference, New York City
31. (2016) Technical Advisory Committee (TAC) annual meeting, Federal Highway Adminstration, McLean, Virginia
32. (2014) SAMSI Computational Methods in Social Sciences Program Transition Workshop, Durham, NC
33. (2014) ENAR spring meeting, Baltimore, MD
34. (2013) Technical experts meeting on statistical methodologies, Federal Highway Adminstration (FHWA), Durham, NC
35. (2013) International Workshop on Objective Bayes Methodology, Durham, NC
36. (2013) Joint Statistical Meeting, Montreal, Canada

37. (2013) ENAR spring meeting, Orlando, FL
38. (2013) SAMSI Computational Methods in Social Sciences Program Opening Workshop, Durham, NC
39. (2013) SAMSI Neuroimaging Data Analysis Summer Program, Durham, NC
40. (2012) ISBA 2012 World Meeting, Kyoto, Japan
41. (2012) ENAR spring meeting, Washington, DC
42. (2012) 5th Annual Bayesian Biostatistics Conference, Houston, TX
43. (2011) Joint Statistical Meeting, Miami, FL
44. (2011) IISA Conference on Probability, Statistics, and Data Analysis, Raleigh, NC
45. (2010) The Eighth ICSA International Conference, Guangzhou, China
46. (2007) Joint Statistical Meeting, Salt Lake City, UT