Curriculum Vitae

Lu Tang, Ph.D.
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Academic Interests

- Machine Learning and Health Data Science
- Data Integration and Privacy-Preserving Data Analysis
- Causal Inference and Precision Medicine

Education and Training

Undergraduate

Years of attendance	University, city, state	Degree, Year Awarded	Field
2008-2010	Sun Yat-sen University Guangzhou, China		Information and Computational Science
2010-2012	University of Virginia Charlottesville, VA	B.A., 2012	Mathematics, Statistics (minor in Computer Science)

Graduate

Years of attendance	University, city, state	Degree, Year Awarded	Field
2012-2013	University of Virginia Charlottesville, VA	M.S., 2013	Statistics
2013-2018	University of Michigan Ann Arbor, MI	Ph.D., 2018	Biostatistics

Appointments and Positions

Academic

2012-2013	Research Assistant	Predictive Technology Laboratory, University of Virginia, Charlottesville, VA
2013-2018	Graduate Student Research Assistant	Children's Environmental Health Center, University of Michigan, Ann Arbor, MI
2018-Present	Assistant Professor (Tenure Stream)	Department of Biostatistics, School of Public Health, University of Pittsburgh, Pittsburgh, PA
2024-Present	Vice Chair for Education	Department of Biostatistics, School of Public Health, University of Pittsburgh, Pittsburgh, PA

Non-Academic

    2017   Data Science Intern   A9.com (Amazon.com), Palo Alto, CA

Membership in Professional and Scientific Societies

2014-Present   International Biometric Society, Eastern North American Region (ENAR)

2015-Present   American Statistical Association (ASA)

2018-Present   International Chinese Statistical Association (ICSA)

2020-Present   Institute of Mathematical Statistics (IMS)

2023-Present   Member, International Statistical Institute (ISI)

Honors and Awards

2009   University Merit-based Scholarship
Sun Yat-sen University

2012   Induction into *Pi Mu Epsilon* Honorary Mathematics Society

2012   Outstanding Student Scholarship
University of Virginia Department of Statistics

2014, 15, 16   Rackham Conference Travel Grant
University of Michigan Rackham Graduate School

2015   Best Poster Award, ENAR Conference
International Biometric Society, ENAR

2016   Poster Award, MIDAS Annual Symposium
Michigan Institute for Data Science

2017   Kaggle Prediction Challenge, 3rd Place
Michigan Student Symposium for Interdisciplinary Statistical Sciences

2018   Outstanding Contribution in Reviewing
Journal of Multivariate Analysis

2019   IMS New Researcher Conference Travel Award
Institute of Mathematical Statistics

2021   Nominated for James L. Craig Excellence in Education Award
University of Pittsburgh School of Public Health

2022, 24   Faculty Computing Award
University of Pittsburgh School of Public Health

2023   IMS New Researcher Travel Award
Institute of Mathematical Statistics

Professional Activities

Teaching

Courses Taught

Years Taught	Course Number: Title	Hours of Lecture, credits, Average Enrollment	Role in course
Fall 2018	BIOST 2025: Biostatistics Seminar	1 hr/wk, 1 credit, 31 students	Primary Coordinator
Spring 2019	BIOST 2025: Biostatistics Seminar	1 hr/wk, 1 credit, 13 students	Primary Coordinator
Fall 2019	BIOST 2025: Biostatistics Seminar	1 hr/wk, 1 credit, 18 students	Primary Coordinator
Spring 2020	BIOST 2080: Advanced Statistical Learning	4 hrs/wk, 2 credits, 19 students	Primary Instructor
Fall 2020	BIOST 2079: Introductory Statistical Learning for Health Sciences	4 hrs/wk, 2 credits, 15 students	Primary Instructor
Spring 2021	BIOST 2080: Advanced Statistical Learning	4 hrs/wk, 2 credits, 7 students	Primary Instructor
Fall 2021	BIOST 2079: Introductory Statistical Learning for Health Sciences	4 hrs/wk, 2 credits, 25 students	Primary Instructor
Fall 2022	BIOST 2079: Introductory Statistical Learning for Health Sciences	4 hrs/wk, 2 credits, 12 students	Primary Instructor
Spring 2023	BIOST 2080: Advanced Statistical Learning	4 hrs/wk, 2 credits, 4 students	Primary Instructor
Fall 2023	BIOST 2079: Introductory Statistical Learning for Health Sciences	4 hrs/wk, 2 credits, 15 enrolled	Primary Instructor

Other Teaching (lectures, tutorials, and continuing education courses)

Date(s)	Type of Teaching	Title
2019-2020	Project supervisor for CS1980/1640: Department of Computer Science Undergraduate Capstone. Students: Emeka Amadi, Yuxi Liu, Yuchen Shi	Machine learning for electronic health records data
2022	Summer undergraduate research supervision. Students: Andrew Ni (Brown University), Hannah Chang (University of Michigan)	Spatiotemporal modeling of PM2.5 exposure on Alzheimer's disease mortality
2023	Summer undergraduate research supervision. Student: Hanwen Li (University of Pittsburgh, Department of Statistics)	Application of federated learning in TensorFlow

Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Ruishen Lyu	MS in Biostatistics 2020	Thesis, "Improving treatment decision for sepsis patients by reinforcement learning"	Thesis Advisor
Zhuxuan Fu	MS in Biostatistics 2020	Thesis, "A prognostic model of immunohistochemistry biomarkers for high-grade serous ovarian cancer"	Thesis Advisor
Jason N. Kennedy	MS in Biostatistics 2021	Thesis, "Towards a learning health system: using reinforcement learning to optimize treatment decisions in sepsis patients"	Thesis Advisor
Peng Liu	PhD in Biostatistics 2021	Dissertation, "Outcome-guided disease subtyping for high-dimensional omics data"	Dissertation Co-advisor
Liling Lu	MS in Biostatistics 2022	Thesis, "Safe reinforcement learning for sepsis treatment"	Thesis Advisor
Xiaoqing Tan	PhD in Biostatistics 2022	Dissertation, "Causal inference under data restrictions"	Dissertation Advisor
Haoyi Fu	PhD in Biostatistics 2022	Dissertation, "Bayesian clustering and modeling approaches for the analysis of brain-imaging data"	Dissertation Co-advisor
Xinlei Chen	PhD in Biostatistics 2025 (expected)	Dissertation, tentative title "Robustness in data-driven treatment decision making"	Dissertation Advisor
Jinhong Li	PhD in Biostatistics 2025 (expected)	Dissertation, tentative title "Data integration methods for causal inference"	Dissertation Advisor
Zhiyu Sui	PhD in Biostatistics 2025 (expected)	Dissertation, tentative title "Transfer learning of treatment decisions"	Dissertation Co-advisor
Crystal Zang	PhD in Biostatistics 2026 (expected)	Dissertation, tentative title "Natural language processing approaches for electronic health records"	Dissertation Advisor

Awards Obtained by Thesis/Dissertation Advisees

Name of Student	Award Year	Award Name
Peng Liu	2020	Distinguished Student Paper Awards, ENAR
Xiaoqing Tan	2021	Honorable Mention for Student Paper Award, ASA Statistical Learning and Data Science (SLDS) Section
Xiaoqing Tan	2022	NSF Scholarships for Quality and Productivity Research Conference (QPRC)
Liling Lu	2022	Honorable Mention for Best Presentation, Biostatistics Research Day

Name of Student	Award Year	Award Name
Xiaoqing Tan	2022	Student Research Award, New England Statistics Symposium (NESS)
Xiaoqing Tan	2023	Distinguished Student Paper Awards, ENAR
Haoyi Fu	2023	Honorable Mention for Student Paper Award, ASA Medical Devices and Diagnostics (MDD) Section
Xiaoqing Tan	2023	Outstanding Student Award, Department of Biostatistics, University of Pittsburgh
Jinhong Li	2023	Travel Award, CBMS Conference
Jinhong Li	2023	Student Traveling Grant, Midwest Biopharmaceutical Statistics Workshop
Crystal Zang	2024	Miheala Serban Award for Best Poster Presentation, ASA Pittsburgh Chapter Spring Banquet

Academic Advising

Name of Student	Program and Years of Advising	Notes
Xiaoqing Tan	PhD in Biostatistics, 2020-2022	Academic Advisor
Garry W. Smyda	PhD in Biostatistics, 2020-2021	Academic Advisor
Xinlei Chen	PhD in Biostatistics, 2021-Present	Academic Advisor
Venus Yang	MS in Biostatistics, 2021-Present	Academic Advisor
Jinhong Li	PhD in Biostatistics, 2022-Present	Academic Advisor
Yuxin Ren	PhD in Biostatistics, 2022-Present	Academic Advisor
Eva Zadorozny	MS in Biostatistics, 2022-Present	Academic Advisor
Crystal Zang	PhD in Biostatistics, 2023-Present	Academic Advisor
Zhiyi Yang	PhD in Biostatistics, 2023-Present	Academic Advisor
Ruizhi Yuan	PhD in Biostatistics, 2023-Present	Academic Advisor

Service on Masters or Doctoral Committees

Master Students

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
2019-2019	Yan Jiang	MS in Biostatistics	"Estimating data methylation levels for single-cell bisulfite sequencing (BS-Seq) data"
2021-2021	Xiaojun Shi	MS in Biostatistics	"Sensitivity analysis on unmeasured confounders for studies of opioid use disorder"
2022-2023	Jiaqian Liu	MS in Biostatistics	"Prediction of severe asthma outcomes in children on EHR data"
2023-2024	Ian M. Jacobs	MS in Biostatistics	"Exploring the additive effects of religious participation on multivariate, demographics based machine learning models"

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
2023-2024	Madeline J. Peterson	MS in Biostatistics	"A comparison of classification trees to logistic regression for exploring CNS and systemic biomarker predictors of patient outcome after traumatic brain injury"

Doctoral Students

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
2018-2019	Li Zhu	PhD in Biostatistics	"Bayesian variable selection model and differential co-expression network analysis for multi-omics data integration"
2020-2021	Xianling Wang	PhD in Biostatistics	"Statistical considerations in latent class modelling of diagnostic tests and covariates with missing values"
2020-2021	Zhuxuan Fu	PhD in Epidemiology	"Identifying opportunities for improving epithelial ovarian cancer survival using novel approaches for exploring the role of ovulation and hormone-related conditions"
2021-2022	Yujia Li	PhD in Biostatistics	"Clustering and association analysis for high-dimensional omics studies"
2020-2022	Xiaoshuang Xun	PhD in Epidemiology	"Phthalate exposure during pregnancy and infant/child development: evaluating phthalate mixtures, time varying exposures, and placentally mediated biologic mechanisms"
2021-2022	Zhongying Xu	PhD in Biostatistics	"Novel adaptive trial designs for studies with a composite endpoint of morbidity and mortality"
2022-2023	Wei Zong	PhD in Biostatistics	"Statistical modeling for high-dimensional omics studies for congruence, heterogeneity and clustering"
2022-2023	Yang Ou	PhD in Biostatistics	"Estimation of causal treatment effect for clustered observational data with unmeasured confounding"
2023-2024	Gehui Zhang	PhD in Biostatistics	"Doubly robust estimation of causal effects in observational data with time-to-event outcomes"
2023-Present	Runjia Li	PhD in Biostatistics	"Stochastic volatility for ecological momentary assessment data"

Supervision and Mentoring of Student/Graduate Student Researchers (GSR)

Dates	Name of Student	Position of Student
2022-2023	RuoFei Yin	MS hourly
2022-2023	Crystal Zang	PhD GSR
2022-Present	Xinlei Chen	PhD GSR
2023-Present	Ruizhi Yuan	PhD GSR

Research and Training

Grants and Contracts Received

Principal Investigator, Multiple Principal Investigator, or Program Project Director
as listed in NIH RePORT and/or on Notice of Award

Years Inclusive	Grant and/or Contract Number and Title	Source	Total Award Amount	% Effort
7/1/2022-6/30/2024	Federated learning methods for heterogeneous and distributed Medicaid data	UPMC Competitive Medical Research Fund	$25,000	In-kind + 25% GSR
4/1/2023-3/31/2025	R21 DA055672 Federated learning methods for heterogeneous and distributed Medicaid data	NIH/NIDA	$418,087	20% + 100% GSR
9/1/2023-8/31/2026	DMS 2310217 (Statistics) Fusion pursuit for pattern-mixture models with application to longitudinal studies with nonignorable missing data	NSF	$199,978	10% + 50% GSR

Co-Investigator
include institutional grants as well as inter-institutional subcontracts for which you are officially listed as Co-Investigator (e.g., key personnel designation in NIH grant)

Years Inclusive	Grant and/or Contract Number and Title (PI: Name; Institution)	Source	Total Award Amount	% Effort
4/1/2019-3/31/2021	R01 DA048029 Examining the quality of opioid use disorder treatment in a Medicaid Research Network (PI: Donohue)	NIH/NIDA	3,455,398	5%
1/21/2019-11/30/2025	R35 HL144804 Organizational Strategies for Improving Evidence-Uptake in Intensive Care (PI: Kahn)	NIH/NHLBI	$3,601,937	10%
7/1/2019-6/30/2024	Medicaid Research Center Grant (PI: James)	PA Department of Health	$1,787,522	5%
12/6/2019-12/31/2022	Sepsis on FHIR: a shared data infrastructure to improve sepsis care (PI: Seymour)	Kaiser Foundation	$396,650	15%
3/13/2020-8/31/2023	CDC PDMP OD2A Predictive Analytics Project (PI: Walid)	PA Department of Health / CDC	$980,239	15%

Years Inclusive	Grant and/or Contract Number and Title (PI: Name; Institution)	Source	Total Award Amount	% Effort
8/1/2020-7/31/2022	R21 CA241840 Metabolomic and miRNA profiling of vitreous humor in uveal melanoma (PI: Demirci)	NIH/NCI	$415,342	20%
7/1/2021-6/30/2024	Medicaid Research Support for Allegheny County (PI: Donohue)	ACDHS	$513,110	10%
8/2/2021-6/30/2025	R01 GM141081 Precision Medicine Approach to Glucocortisteroids in Sepsis (PI: Yende)	NIH/NIGMS	$2,573,427	15% + 100% GSR
1/1/2022-12/31/2023	R21 GM144851 REMISE study: REMnant biospecimen Investigation in SEpsis (PI: Seymour)	NIH/NIGMS	$451,920	2%
9/1/2022-8/31/2026	R01 DA055585 Improving racial equity in opioid use disorder treatment in Medicaid (PI: Donohue)	NIH/NIDA	$5,087,639	10%
9/15/2022-7/31/2025	R01 HL164835 Individualized Prediction of Treatment Effects Using Data from Both Embedded Clinical Trials and Electronic Health Records (MPI: Cooper & Seymour)	NIH/NHLBI	$1,839,741	5%
2/3/2023-11/30/2026	R01 LM014142 Disease subtyping guided by clinical phenotype for precision medicine (PI: Tseng)	NIH/NLM	$1,219,932	10%
9/24/2023-6/30/2023	R01 MD013901 Data Driven Methods for Missing Data Imputation in Surgical Disparities Research (PI: Ma)	NIH/NIMHD	$996,265	8%
9/30/2023-8/31/2028	RM1 DA059365 Improving quality and equity of opioid use disorder treatment using a multi-state Medicaid research network (PI: Donohue)	NIH/NIDA	$11,903,672	12.5%

Invited Lectureships or Major Presentations Related to Your Research

Date	Title of Presentation	Venue
2020	Statistical Concerns in Modeling for COVID-19	Conversations about COVID-19, Graduate School of Public Health, University of Pittsburgh

Other Research and Training Activities

Date	Position	Description of Activity
2013-2018	Trainee, Graduate Student Research Assistant at University of Michigan	NIH/NIEHS P01 ES022844 Lifecourse exposures and diet: epigenetics, maturation and metabolic syndrome
2015-2018	Trainee, Graduate Student Research Assistant at University of Michigan	NIH/NIEHS R01 ES024732 Statistical methods to assess early life environmental exposures on child health
2024	Participant	Leadership Academy for Early Career Faculty, University of Pittsburgh Office of Academic Career Development

Publications

*: corresponding or senior author
+: co-first author
_: student advisee or supervisee

Refereed Articles – Published or In Press

Statistical Papers (from independent methodological research)

1. **Tang, L.**, and Song, P.X. (2016). Fused LASSO approach in regression coefficients clustering – Learning parameter heterogeneity in data integration. *Journal of Machine Learning Research*, 17(113), 1-23.

2. Zhou, L., **Tang, L.**, Song, A.T., Cibrik, D., and Song, P.X. (2017). A LASSO method to identify protein signature predicting post-transplant renal graft survival. *Statistics in Biosciences*, 9(2), 431-452.

3. **Tang, L.**, Chaudhuri, S., Bagherjeiran, A., and Zhou, L. (2018). Learning large scale ordinal ranking model via divide-and-conquer technique. *Companion Proceedings of the Web Conference 2018*, 1901-1909.

4. **Tang, L.**, Zhou, L., and Song, P.X. (2019). Fusion learning algorithm to combine partially heterogeneous Cox models. *Computational Statistics*, 34(1), 395-414.

5. **Tang, L.**, Zhou, L., and Song, P.X. (2020). Distributed simultaneous inference in generalized linear models via confidence distribution. *Journal of Multivariate Analysis*, 176, 104567.

6. Wang, L., Zhou, Y., He, J., Zhu, B., Wang, F., **Tang, L.**, Kleinsasser, M., Barker, D., Eisenberg, M., and Song, P.X. (2020). An epidemiological forecast model and software assessing interventions on COVID-19 epidemic in China. *Journal of Data Science*, 18(3), 409-432.

7. **Tang, L.**, Zhou, Y., Wang, L., Purkayastha, S., Zhang, L., He, J., Wang, F., and Song, P.X. (2020). A review of multi-compartment infectious disease models. *International Statistical Review*, 88(2), 462–513. **[Top Cited Article 2020-2021 in International Statistical Review.]**

8. **Tang, L.***, and Song, P.X. (2020). Post-stratification fusion learning in longitudinal data analysis. *Biometrics*, 77(3), 914-928.

9. Wang, F., Zhou, L., **Tang, L.**, and Song, P.X. (2021). Method of contraction-expansion (MOCE) for simultaneous inference in linear models. *Journal of Machine Learning Research*, 22(192), 1-32.

10. Tan, X., Chang, C.H., Zhou, L., and **Tang, L.*** (2022). A tree-based model averaging approach for personalized treatment effect estimation from heterogeneous data sources. *Proceedings of the 39th International Conference on Machine Learning (ICML) 2022*. **[An earlier version won the Student Research Award at New England Statistics Symposium (NESS) 2022 and received Honorable Mention at Joint Statistical Meetings (JSM) 2021 SLDS Section Student Paper Competition.]**

11. Tan, X., Qi, Z., Seymour, C.W., and **Tang, L.*** (2022). RISE: Robust individualized decision learning with sensitive variables. *Advances in Neural Information Processing Systems (NeurIPS) 2022*. **[An earlier version won Distinguished Student Paper Award at International Biometric Society ENAR 2023.]**

12. Li, Y., Rahman, T., Ma, T., **Tang, L.**, and Tseng, G. (2023). A sparse negative binomial mixture model for clustering RNA-seq count data. *Biostatistics*, 24(1), 68-84.

13. Fu, H., **Tang, L.**, Rosen, O., Hipwell, A.E., Huppert, T., and Krafty, R.T. (2024). Covariate-guided Bayesian mixture of spline experts for the analysis of multivariate high-density longitudinal data. *Biostatistics*, kxad034. **[An earlier version received Honorable Mention at Joint Statistical Meetings (JSM) 2023 MDD Section Student Paper Competition.]**

14. Xu, Z., Ma, T., **Tang, L.**, Talisa, V.B., and Chang, C.H. (2024). Bayesian response adaptive randomization design with a composite endpoint of mortality and morbidity. *Statistics in Medicine*, 43(6), 1256-1270.

15. Li, Y., Liu, P., Wang, W., Zong, W., Fang, Y., Ren, Z., **Tang, L.**, and Tseng, G. (2024). Outcome-guided disease subtyping by generative model and weighted joint likelihood in transcriptomic applications. *Annals of Applied Statistics*. Accepted. **[An earlier version won Distinguished Student Paper Award at International Biometric Society ENAR 2020.]**

16. Xiang, P., Zhou, L., and **Tang, L.*** (2024). Transfer learning via random forests: a one-shot federated approach. *Computational Statistics and Data Analysis*, 197, 107975.

17. Zhang, Y., **Tang, L.**, Huang, Y., and Ma, Y. (2024). Smart data augmentation: one equation is all you need. *Statistical Analysis and Data Mining*. Accepted.

Collaborative Papers (from interdisciplinary collaborative research)

18. Gerber, M.S., and **Tang, L.** Automatic quality control of transportation reports using statistical language processing. (2013). *IEEE Transactions on Intelligent Transportation Systems*, 14(4), 1681-1689.

19. Marchlewicz, E.H., Dolinoy, D.C., **Tang, L.**, Milewski, S., Jones, T.R., Goodrich, J.M., Soni, T., Domino, S.E., Song, P.X., Burant, C., and Padmanabhan, V. (2016). Lipid metabolism is a key mediator of developmental epigenetic programming. *Scientific Reports*, 6, 34857.

20. Perng, W., **Tang, L.**, Song, P.X., Tellez-Rojo, M.M., Cantoral, A., and Peterson, K.E. (2019). Metabolomic profiles and development of metabolic risk during the pubertal transition: A prospective study in the ELEMENT project. *Pediatric Research*, 85(3), 262-268.

21. Perng, W., **Tang, L.**, Song, P.X., Goran, M., Tellez-Rojo, M.M., Cantoral, A., and Peterson, K.E. (2019). Urate and nonanoate mark the relationship between sugar-sweetened beverage intake and blood pressure in adolescent girls: A metabolomics analysis in the ELEMENT cohort. *Metabolites*, 9(5), 100.

22. Perng, W., Tamayo-Ortiz, M., **Tang, L.**, Sanchez, B.N., Cantoral, A., Solano-Gonzalez, M., Meeker, J., Dolinoy, D., Roberts, E., Schnaas, L., Watkins, D., Goodrich, J., Lee, R.C., Bautista, L.F., Lamadrid-Figueroa, H., Mercado-Garcia, A., Martinez-Mier, E.A., Song, P.X., Ettinger, A., Wright, R., Arora, M., Hu, H., Hernandez-Avila, M., Tellez-Rojo, M.M., and Peterson, K.E. (2019). Cohort profile paper: The early life exposure in Mexico to environmental toxicants (ELEMENT) project. *BMJ Open*, 9(8).

23. Dai, Y., Shan, W., Yang, Q., Guo, J., Zhai, R., Tang, X., **Tang, L.**, Tan, Y., Cai, Y., and Chen, X. (2019). Biomarkers of iron metabolism facilitate clinical diagnosis in mycobacterium tuberculous infection. *Thorax*, 74(12), 1161-1167.

24. LaBarre, J.L., Peterson, K.E., Kachman, M.T., Perng, W., **Tang, L.**, Hao, W., Zhou, L., Karnovsky, A., Cantoral, A., Tellez-Rojo, M.M., Song, P.X., and Burant C.F. (2020). Mitochondrial nutrient utilization underlying the association between metabolites and insulin resistance in adolescents. *The Journal of Clinical Endocrinology & Metabolism*, 105(7), 2442-2455.

25. Goodrich, J.M., Hector, E.C., **Tang, L.**, LaBarre, J.L., Dolinoy, D.C., Mercado-Garcia, A., Cantoral, A., Song, P.X., Tellez-Rojo, M.M., and Peterson, K.E. (2020). Integrative analysis of gene-specific DNA methylation and untargeted metabolomics data from the ELEMENT cohort. *Epigenetics Insights*, 13, 1-10.

26. Yu, F., Saand, A., Xing, C., Lee, J.W., Hsu, L., Palmer, O.P., Jackson, V., **Tang, L.**, Ning, M., Du, R., Kochanek, P.M., Lo, E.H., and Chou, S.H. (2021). CSF lipocalin-2 increases early in subarachnoid hemorrhage are associated with neuroinflammation and unfavorable outcome. *Journal of Cerebral Blood Flow & Metabolism*, 41(10), 2524-2533.

27. Donohue, J.M., Jarlenski, M., Kim, J.Y., **Tang, L.**, et al. and Medicaid Outcomes Distributed Research Network (MODRN) Investigators. (2021). Use of medications for treatment of opioid use disorder among US Medicaid enrollees in 11 states, 2014-2018. *Journal of the American Medical Association*, 326(2), 154-164. **[Featured in multiple news articles, including EurekAlert! by** the **American Association for the Advancement of Science (AAAS) https://www.eurekalert.org/news-releases/802837]**

28. Marchlewicz E., McCabe C., Djuric Z., Hoenerhoff M., Barks J., **Tang L.**, Song P.X., Peterson K.E., Padmanabhan V., and Dolinoy D.C. (2022). Gestational exposure to high fat diets and bisphenol A alters metabolic outcomes in dams and offspring, but produces hepatic steatosis only in dams. *Chemosphere*, 286(2), 131645.

29. Jarlenski, M., Chen, Q., Ahrens, K.A., Allen, L., Austin, A.E., Chappell, C., Donohue, J.M., Hammerslag, L., Lanier, P., McDuffie, M.J., Talbert, J., **Tang, L.**, and Krans, E.E. (2022). Postpartum follow-up care for pregnant persons with opioid use disorder and hepatitis C virus infection. *Obstetrics & Gynecology*, 139(5), 916--918.

30. Cohen, C.C., Dabelea, D., Michelotti, G., **Tang, L.**, Shankar, K., Goran, M.I., and Perng, W. (2022). Metabolome alterations linking sugar-sweetened beverage intake with dyslipidemia in youth: the Exploring Perinatal Outcomes among Children (EPOCH) study. *Metabolites*, 12(6), 559.

31. Cunningham, P., Barnes, A., Mohamoud, S., Allen, L., Talbert, J., Jarlenski M.P., Kim, J.Y., Gordon, A.J., **Tang, L.**, Chang, C.H., Junker, S., Mauk, R., Ahrens, K., Austin, A.E., Clark, S., McDuffie, M.J., Kennedy, S., Donohue, J.M., and Burns, M. (2022). Follow-up visits after ED visits for opioid use disorder: Do they reduce future overdoses? *Journal of Substance Abuse Treatment*. DOI: 10.1016/j.jsat.2022.108807.

32. Zivin, K., Lindsay, A., Barnes, A., Junker, S., Kim, J.Y., **Tang, L.**, Kennedy, S., Ahrens, K.A., Burns, M., Clark, S., Cole, E., Crane, D., Idala, D., Lanier, P., Mohamoud, S., Jarlenski, M., McDuffie, M.J., Talbert, J., Gordon, A.J., Donohue, J.M. (2022). Design, implementation, and evolution of the Medicaid Outcomes Distributed Research Network (MODRN). *Medical Care*, 60(9), 680-690.

33. Burns, M., **Tang, L.**, Chang, C.H., Kim, J.Y., Ahrens, K., Lindsay, A., Cunningham, P., Gordon, A., Jarlenski, M.P., Lanier, P., Mauk, R., McDuffie, M.J., Mohamoud, S., Talbert, J., Zivin, K., and Donohue, J. (2022). Duration of medication treatment for opioid-use disorder and risk of overdose among Medicaid enrollees in eleven states: A retrospective cohort study. *Addiction*. DOI: 10.1111/add.15959.

34. Goodrich, J.M., **Tang, L.**, Carmona, Y.R., Meijer, J.L., Perng, W., Watkins, D.J., Meeker, J.D., Mercado-Garcia, A., Cantoral, A., Song, P.X., Tellez-Rojo, M.M., and Peterson, K.E. (2022). Trimester-specific phthalate exposures in pregnancy are associated with circulating metabolites in children. *PLOS One*, 17(8), p.e0272794.

35. Cole, E.S., Allen, L., Austin, A., Barnes, A., Chang, C.H., Clark, S., Crane, D., Cunningham, P., Fry, C., Gordon, A.J., Hammerslag, L., Idala, D., Kennedy, S., Kim, J.Y., Krishnan, S., Lanier, P., Mahakalanda, S., Mauk, R., McDuffie, M.J., Mohamoud, S., Talbert, J., **Tang, L.**, Zivin, K., and Donohue, J.M. (2022). Outpatient follow-up and use of medications for opioid use disorder after residential treatment among Medicaid enrollees in 10 states. *Drug and Alcohol Dependence*, 241, 109670.

36. Smart, R., Kim, J.Y., Kennedy, S., **Tang, L.**, Allen, L., Crane, D., Mack, A., Mohamoud, S., Pauly, N., Perez, R., and Donohue, J.M. (2022). Association of polysubstance use disorder with treatment quality among Medicaid beneficiaries with opioid use disorder. *Journal of Substance Abuse Treatment*, 114, 108921.

37. Allen, L., Cole, E., Sharbaugh, M., Austin, A., Burns, M., Chang, C.H., Clark, S., Crane, D., Cunningham, P., Durrance, C., Fry, C., Gordon, A., Hammerslag, L., Kim, J.Y., Kennedy, S., Krishnan, S., Mauk, R., Talbert, J., **Tang, L.**, and Donohue, J.M. (2023). Use of residential opioid use disorder

treatment among Medicaid enrollees in nine states. *Journal of Substance Use and Addiction Treatment*, 149, 209034.

38. Ahrens, K., Sharbaugh, M., Jarlenski, M.P., **Tang, L.**, Allen, L., Austin, A.E., Barnes, A.J., Burns, M.E., Clark, S., Zivin, K., Mack, A., Liu, G., Mohamoud, S., McDuffie, M.J., Hammerslag, L., Gordon, A.J., and Donohue, J.M. (2023). Prevalence of testing for HIV, HBV, and HCV among Medicaid enrollees treated with medications for opioid use disorder in 11 states, 2016-2019. *Clinical Infectious Diseases*, 76(10):1793-1801.

39. Gellad, W.F., Yang, Q., Adamson, K.M., Kuza, C.C., Buchanich, J.M., Bolton, A.L., Murzynski, S.M., Thomas Goetz, C., Washington, T., Lann, M.F., Chang, C.H., Suda, K.J., and **Tang, L.*** (2023). Development and validation of an overdose risk prediction tool using prescription drug monitoring program data. *Drug and Alcohol Dependence*, 246, 109856.

40. Fu, Z., Brooks, M.M., Irvin, S., Jordan, S., Aben, K.K., Anton-Culver, H., Bandera, E.V., Beckmann, M.W., Berchuck, A., Brooks-Wilson, A., Chang-Claude, J., Cook, L.S., Cramer, D.W., Cushing-Haugen, K.L., Doherty, J.A., Ekici, A.B., Fasching, P.A., Fortner, R.T., Gayther, S.A., Gentry-Maharaj, A., Giles, G.G., Goode, E.L., Goodman, M.T., Harris, H.R., Hein, A., Kaaks, R., Kiemeney, L.A., Köbel, M., Kotsopoulos, J., Le, N.D., Lee, A.W., Matsuo, K., McGuire, V., McLaughlin, J.R., Menon, U., Milne, R.L., Moysich, K.B., Pearce, C.L., Pike, M.C., Qin, B., Ramus, S.J., Riggan, M.J., Rothstein, J.H., Schildkraut, J.M., Sieh, W., Sutphen, R., Terry, K.L., Thompson, P.J., Titus, L., van Altena, A.M., White, E., Whittemore, A.S., Wu, A.H., Zheng, W., Ziogas, A., Taylor, S.E., **Tang, L.**, Songer, T., Wentzensen, N., Webb, P.M., AOCS Group, Risch, H.A., and Modugno, F. (2023). Lifetime ovulatory years and risk of epithelial ovarian cancer: a multinational pooled analysis. *JNCI: Journal of the National Cancer Institute*, 115(5), 539-551.

41. Austin, A.E., **Tang, L.**, Kim, J.Y., Allen, L., Barnes, A.J., Chang, C.H., Clark, S., Cole, E.S., Durrance, P.C., Donohue, J.M., Gordon, A.J., Huskamp, H.A., McDuffie, M.J., Mehrotra, A., Mohamoud, S., Talbert, J., Ahrens, K.A., Applegate, M., Hammerslag, L.R., Lanier, P., Tossone, K., Zivin, K. and Burns, M.E. (2023). Trends in use of medication to treat opioid use disorder during the COVID-19 pandemic in 10 state Medicaid programs. *JAMA Health Forum*, 4(6), e231422.

42. Hammerslag, L., Talbert, J., Donohue, J.M., Sharbaugh, M., Ahrens, K., Allen, L., Austin, A.E., Gordon, A.J., Jarlenski, M., Kim, J.Y., Mohamoud, S., **Tang, L.**, and Burns, M. (2023). Urine drug testing among Medicaid enrollees initiating buprenorphine treatment for opioid use disorder within 9 MODRN states. *Drug and Alcohol Dependence*, 250, 110875.

43. Demirci, H., **Tang, L.+**, Demirci, F.Y., Ozgonul, C., Weber, S., and Sundstrom, J. (2023). Investigating vitreous cytokines in choroidal melanoma. *Cancers*, 15(14), 3701.

44. King, A.J., **Tang, L.**, Davis, B.S., Preum, S.M., Bukowski, L.A., Zimmerman, J., and Kahn, J.M. (2023). Machine learning-based prediction of low-value care for hospitalized patients. *Intelligence-Based Medicine*. doi:10.1016/j.ibmed.2023.100115.

45. Seymour, C.W., Urbanek, K.L., Nakayama, A., Kennedy, J.N., Powell, R., Robinson, R.A., Kapp, K.L., Billiar, T.R., Vodovotz, Y., Gelhaus, S.L., Cooper, V.S., **Tang, L.**, Mayr, F., Reitz, K.M., Horvat, C., Meyer, N.J., Dickson, R.P., Angus, D., and Palmer, O.P. (2024). A prospective cohort protocol for the remnant investigation in sepsis study. *Critical Care Explorations*, 5(11), e0974.

46. Yildirim, N., Zlotnikov, S., Sayar, D., Kahn, J.M., Bukowski, L.A., Shah Amin, S., Riman, K.A., Davis, B.S., Minturn, J.S., King, A.J., Ricketts, D., **Tang, L.**, Sivaraman, V., Perer, A., Preum, S.M., McCann, J., and John Zimmerman. (2024). Sketching AI concepts with capabilities and examples: AI innovation in the intensive care unit. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 2024.

Referred Articles – Submitted or Preprint

1. Zhou, L., **Tang, L.+**, and Lin, H. Inherent-structure driven high-dimensional subgroup learning. Under review in *Journal of the Royal Statistical Society: Series B*.

2. <u>Ou, Y.</u>, **Tang, L.**, and Chang, C.H. Sensitivity analysis of causal treatment effect estimation for clustered observational data with unmeasured confounding. Under review in *Statistics in Medicine*.

3. <u>Xu, Z.</u>, Bandos, A., Ma, T., **Tang, L.**, Talisa, V., and Chang, C.H. Bayesian response adaptive randomization design with a composite endpoint of mortality and morbidity. Under review in *Statistics in Medicine*.

4. Zhao, X., Zhou, L., and **Tang, L.*** High-dimensional subgroup learning for multiple mixed outcomes. Under revision and awaiting new submission.

5. <u>Xun, X.</u>, **Tang, L.**, Qin, X., Haggerty, C.L., Sathyanarayana, S., Swan, S.H., Barrett, E.S., Kannan, K., Nguyen, H.N., and Adibi, J. The association of prenatal urinary phthalates with infant anogenital distance at birth in two birth cohort studies. Under revision and awaiting new submission.

6. Talisa, V.B., Shah, F.A., Kennedy, J.N., Chang, C.H., Triantafyllou, S., **Tang, L.**, Mayr, F., Higgins, A., Peake, S., Mouncey, P., Harrison, D., Cooper, G.F., Bellomo, R., Rowan, K., Yealy, D.M., Angus, D.C., Seymour, C.W., and Yende, S.P. Assessment of clinical sepsis subtypes and individual treatment effects in a multicenter trial of early goal directed therapy. Under review in *Intensive Care Medicine*.

7. <u>Chen, X.</u>, Talisa, V.B., <u>Tan, X.</u>, Qi, Z., Chang, C.H., Seymour, C.W., and **Tang, L.*** Federated Learning of Robust Individualized Decision Rules with Application to Heterogeneous Multi-Hospital Sepsis Population. Under review in *Annals of Applied Statistics*.

Invited Articles

1. **Tang, L.** (2020). Discussion on "Tracking Reproductivity of COVID-19 Epidemic in China with Varying Coefficient SIR Model" by Sun et al. *Journal of Data Science*, 18(3), 475-476.

2. **Tang, L.** (2020). Discussion on "The timing and effectiveness of implementing mild interventions of COVID-19 in large industrial regions via a synthetic control method" by Tian et al. *Statistics and Its Interface*, 14(1), 13-14.

Books and Book Chapters

1. Hector, E.C., **Tang, L.**, Zhou, L., and Song, P.X. (2024). Data integration and fusion in the Bayesian and Frequentist frameworks. *Handbook of Bayesian, Fiducial, and Frequentist Inference*, 238-263.

Published Abstracts

1. Peterson, K.E., **Tang, L.**, Perng, W., LaBarre, J., Goodrich, J., Watkins, D., Tellez-Rojo, M.M., Meeker, J.D., Burant, C.F., and Song, P.X. Are Prenatal Trimester-Specific Phthalates Exposure related to Metabolomics Biomarkers during Peripuberty? *ISEE Conference Abstracts*, 2018.

2. LaBarre, J., Peterson, K., Hao, W., Kachman, M., **Tang, L.**, Perng, W., Zhou, L., Song, P.X., Karnovsky, A., Cantoral, A., Tellez-Rojo, M., and Burant, C.F. Intrinsic mitochondrial nutrient utilization may underlie the association of metabolite level with BMIz and insulin resistance. *Current Developments in Nutrition*, 3(Supplement_1), nzz046-FS03-02-19; 2019.

3. Perng, W., **Tang, L.**, Cantoral, A., and Peterson, K.E. Metabolomic Markers of the Relationship Between Sugar-sweetened Beverage Intake and Metabolic Risk in Mexican Adolescents. *Current developments in nutrition*, 3(Supplement_1), nzz044- P08-132-19; 2019.

4. Cohen, C.C., Dabelea, D., **Tang, L.**, Goran, M.I., Shankar, K., and Perng, W. Metabolome Alterations Linking Sugar Sweetened Beverages with Dyslipidemia in Youth: The Exploring Perinatal Outcomes Among Children Study. *Current developments in nutrition*, 6(Supplement_1), 895-895; 2022.

5. Talisa, V., Shah, F., Chang, C.H., Seymour, C.W., **Tang, L.**, Kennedy, J., Triantafyllou, S., Cooper, G., DeMerle, K., Mayr, F., Yealy, D., Higgins, A., Peake, S., Bellomo, R., Harrison, D., Mouncey, P., Rowan, K., Angus, D., and Yende, S. Heterogeneity in response to early goal-directed therapy in sepsis. *Critical Care Medicine*, 51(1), 594-594; 2022.

6. <u>Ni, A.</u>, <u>Chang, H.</u>, and **Tang, L.** County-level cumulative effect of ambient PM2.5 exposure on the Alzheimer's disease mortality rate in the West Coast regions of the United States. *Alzheimer's Association International Conference*; 2023.

Presentations

<u>Invited Presentations</u>
1. "Text Mining for Vehicular Crash Report Narratives." University of Virginia Department of Systems and Information Engineering, 2012.
2. "Regression Coefficient Clustering in Data Integration – Learning Data Heterogeneity." Sun Yat-sen University Precision Medicine Workshop, Guangzhou, China, 2016.
3. "Learning Large Scale Ordinal Regression Model via Divide-and-Conquer." A9.com, Inc., Palo Alto, CA, 2017
4. "Fusion Learning in Integration Data Analysis." IBM Research, Yorktown Heights, NY, 2017.
5. "Fusion Learning in Integration Data Analysis." Statistics Student Seminar, Department of Statistics, University of Michigan, 2018
6. "Pattern-Set Mixture Models by Penalized Generalized Estimating Equations." Department of Statistics Seminar, University of Pittsburgh, 2018
7. "Modeling Data Heterogeneity for Big Data." Clinical Research, Investigation, and Systems Modeling of Acute Illness (CRISMA) Center Seminar, Department of Critical Care Medicine, University of Pittsburgh, 2019.
8. "Fusion Learning by Penalized Generalize Estimating Equations for Stratified Correlated Data Analysis." WNAR Annual Meeting, Portland, OR, 2019.
9. "Basic Concepts in Machine Learning." Biostatistics and Data Management Core Speaker Series, Department of Critical Care Medicine, University of Pittsburgh, Philadelphia, PA, 2019.
10. "Integrative Analysis of Heterogeneous Data Sources for Personalized Treatment Effect Estimation." Department of Biostatistics, Boston University, Boston, MA, 2020.
11. "Integrative Analysis of Heterogeneous Data Sources for Personalized Treatment Effect Estimation." Division of Intramural Population Health Research, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NIH/NICHD), Bethesda, MD, 2020.
12. "Integrative Analysis of Heterogeneous Data Sources for Personalized Treatment Effect Estimation." ICSA Applied Statistics Symposium, 2020.
13. "A Tree-based Federated Learning Approach for Personalized Treatment Effect Estimation from Heterogeneous Data Sources." Quality and Productivity Research Conference, Tallahasse, FL, 2021.
14. "A Tree-based Federated Learning Approach for Personalized Treatment Effect Estimation from Heterogeneous Data Sources." ICSA Applied Statistics Symposium, 2021.
15. "Leveraging Models from Heterogeneous Data Sources to Improve Personalized Treatment Effect Estimation." Division of Biostatistics, University of Minnesota, Minneapolis, MN, 2021.
16. "A Tree-based Federated Learning Approach to Improve Personalized Treatment Effect Estimation from Heterogeneous Data Sources." Department of Biostatistics & Informatics, Colorado School of Public Health, Aurora, CO, 2022.
17. "A Tree-based Federated Learning Approach to Improve Personalized Treatment Effect Estimation from Heterogeneous Data Sources." International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), King's College London, London, UK, 2022.
18. "RISE: Robust Individualized Decision Learning with Sensitive Variables." Biostatistics and Computational Biology Branch (BCBB), National Institute of Environmental Health Sciences (NIH/NIEHS), Durham, NC, 2023.
19. "Fairness-Oriented Decision Learning in Distributed Research Networks." ENAR Spring Meeting, Nashville, TN, 2023.

20. "RISE: Robust Individualized Decision Learning with Sensitive Variables." ICSA Applied Statistics Symposium, Ann Arbor, MI, 2023.

21. "RFL-ITR: Robust Federated Learning of Individualized Treatment Rules." WNAR Annual Meeting, Anchorage, AK, 2023.

22. "RFL-ITR: Robust Federated Learning of Individualized Treatment Rules." ICSA International Conference, Hong Kong, China, 2023.

23. "RISE: Robust Individualized Decision Learning with Sensitive Variables." International Conference on Econometrics and Statistics (EcoSta), Tokyo, Japan, 2023.

24. "RISE: Robust Individualized Decision Learning with Sensitive Variables." International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), HTW Berlin, University of Applied Science, Berlin, Germany, 2023.

25. "FLoRI: Federated Learning of Robust Individualized Treatment Rules – with Application to Heterogeneous Multi-Hospital Sepsis Population." Division of Biostatistics and Bioinformatics, Penn State College of Medicine, Hershey, PA, 2024.

Other Presentations

26. "Regularized Lasso Approach for Parameter Fusion in Data Harmonization." ENAR Spring Meeting, Miami, FL, 2015. (Poster)

27. "Learning Parameter Heterogeneity in Data Integration." ENAR Spring Meeting, Austin, TX, 2016.

28. "Fused LASSO Approach in Regression Coefficients Clustering." Joint Statistical Meetings, Chicago IL, 2016. (Poster)

29. "Method of Divide-and-Combine in Regularized Generalized Linear Models for Big Data." Michigan Institute for Data Science Annual Symposium, Ann Arbor, MI, 2016. (Poster)

30. "Predicting the Payment of Blight Tickets in the City of Detroit." Michigan Student Symposium for Interdisciplinary Statistical Sciences, Ann Arbor, MI, 2017. (Poster)

31. "Method of Divide-and-Combine in Regularized Generalized Linear Models for Big Data." ENAR Spring Meeting, Washington, DC, 2017.

32. "Fusion Learning in Stratified Models by Penalized Generalize Estimating Equations." ENAR Spring Meeting, Philadelphia, PA, 2019.

33. "Integrative Data Analytics for Heterogeneous Data." 21st Meeting of New Researchers in Statistics and Probability, Colorado State University, Fort Collins, CO, 2019.

34. "Federated Learning Approaches for Integrative Analysis of Heterogeneous Data Sources." Joint Statistical Meetings, 2021.

35. "A Tree-based Federated Learning Approach to Improve Personalized Treatment Effect Estimation from Heterogeneous Data Sources." Joint Statistical Meetings, Toronto, Canada, 2023.

Non-Print Media (Software, electronic)

Software

1. **Tang, L.**, Zhou, L., and Song, P.X. *metafuse*: Fused lasso approach in regression coefficient clustering. The Comprehensive R Archive Network. 2016. https://cran.r-project.org/web/packages/metafuse/index.html.

2. **Tang, L.**, Zhou, L., and Song, P.X. *modac*: Python MapReduce implementation of GLM for Hadoop clusters. GitHub. 2017. https://github.com/ClumsyBear/MapReduce-for-MODAC.

3. **Tang, L.**, and Song, P.X. *pgee*: R implementation of penalized GEE with LASSO, SCAD and MCP. GitHub. 2018. https://github.com/ClumsyBear/PGEE.

4. Wang, L., Zhou, Y., He, J., Zhu, B., Wang, F., **Tang, L.**, Kleinsasser, M., Barker, D., Eisenberg, M., and Song, P.X. *eSIR*: R package of an epidemiological forecast model for assessing interventions based on COVID-19 data. GitHub. 2020. https://github.com/lilywang1988/eSIR.

5. Tan, X., Chang, C.H., and **Tang, L.** *ifedtree*: R implementation of a tree-based federated learning approach for personalized treatment effect estimation from heterogeneous data sources. GitHub. 2021. https://github.com/ellenxtan/ifedtree.

6. Tan, X., Qi, Z., Seymour, C.W., and **Tang, L.** *RISE*: Python package for deriving robust individualized decision rules when there are sensitive variables. GitHub. 2022. https://github.com/ellenxtan/rise.

Patent
7. Chaudhuri, S., **Tang, L.**, and Bagherjeiran, A.H. (2022). *Learning Ordinal Regression Model via Divide-and-Conquer Technique* (U.S. Patent No. US 11,269,974).

Other Publications

1. **Tang, L.**, Statistical methods of data integration, model fusion, and heterogeneity detection in big biomedical data analysis. *PhD Thesis.* 2018.

Service

Service to School and University

Department of Biostatistics

Years	Committee	Position
2019-2021	Biostatistics Research Day	Organizer/Co-organizer
2020-2022	PhD Admissions Committee	Member
2021-Present	PhD Student Awards Committee	Member
2022-2023	PhD Education Program Working Group	Member
2022-Present	Curriculum Committee	Member
2023-Present	Doctoral Monitoring Committee	Member
2023-2024	Tenure-Stream Faculty Search Committee	Member
2023-Present	MS Admissions Committee	Member
2023-Present	Outreach and Community Engagement Committee	Member

School of Public Health

Years	Committee	Position
2019, 21, 22	SPH Dean's Day Poster Competition	Judge
2021-2022	Biostatistics Department Chair Search Committee	Member
2021-2023	EPCC (Educational Policies Curriculum Committee)	Backup Representative
2023-Present	EPCC (Educational Policies Curriculum Committee)	Department Representative

Service to Field of Scholarship

Date	Position	Organization
2017-2018	Organizer	Fifth Bayesian, Fiducial, and Frequentist (BFF) Workshop
2019-Present	Affiliated Faculty Liaison	National Institute of Statistical Sciences (NISS)
2019, 22, 23	Judge	ASA Pittsburgh Chapter Spring Banquet Poster Competition
2021	Reviewer	ICSA Student Paper Awards Committee
2022	Grant Reviewer	NSF Methodology, Measurement, and Statistics (MMS) Program
2022-Present	Member	ENAR Student Paper Awards Committee
2023	Member	ICSA Applied Statistics Symposium Scientific Program Committee
2023	Member	ICSA Applied Statistics Symposium Poster Session Committee
2023	Discussant	International Biometric Society (IBS) Journal Club on June 14, 2023

Editorial Boards, Editorships

Date	Position	Organization
2022-Present	Associate Editor	*Journal of Data Science*
2022-Present	Guest Editor	*Statistics in Biosciences* special issue on "Statistical Methods, Algorithms and Applications in Biomedical Data Integration"

Conference Session Services

Date	Position	Conference
2020	Session Organizer	ENAR Spring Meeting
2021	Session Organizer	ENAR Spring Meeting
2023	Session Organizer	ENAR Spring Meeting
2023	Session Organizer	ICSA Applied Statistics Symposium
2023	Session Organizer	ICSA China Conference
2023	Session Organizer	ICSA International Conference
2023	Session Organizer	Joint Statistical Meeting
2024	Session Organizer	ICSA China Conference

Manuscript and other Documentation/Publication Review

Dates	Journal Title
2022-Present (2 articles)	American Statistician
2022-Present (4 articles)	Annals of Applied Statistics

Dates	Journal Title
2021-Present (12 articles)	Biometrics
2018-Present (2 articles)	Biostatistics
2017-Present (4 articles)	Computational Statistics and Data Analysis
2020	Electronic Journal of Statistics
2016	IEEE Transactions on Intelligent Transportation Systems
2024	Journal of Causal Inference
2020-Present (4 articles)	Journal of Data Science
2021	Journal of Computational and Graphical Statistics
2018	Journal of Multivariate Analysis
2020-Present (10 articles)	Journal of the American Medical Association
2018-Present (15 articles)	Journal of the American Statistical Association
2019	PLOS One
2017	Science China Mathematics
2022-Present (2 articles)	Stat
2018-Present (4 articles)	Statistica Sinica
2018	Statistics
2022	Statistics and Its Interface
2024	Statistics in Biosciences
2020-Present (8 articles)	Statistics in Medicine

Leadership in Scholarly and Professional Organizations and Honorary Societies

Date	Position	Organization
2022-Present	Treasurer	ASA Pittsburgh Chapter