

Arman Oganisian, PhD

Thomas J. & Alice M. Tisch Assistant Professor of Biostatistics

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Education

2021	University of Pennsylvania Ph.D. in Biostatistics Advisors: Jason Roy and Nandita Mitra Committee: Russell Shinohara, Dylan Small, Edward I. George	Philadelphia, PA
2018	University of Pennsylvania M.S. in Biostatistics	Philadelphia, PA
2013	Providence College B.A. in Quantitative Economics, <i>summa cum laude</i> Minor in Mathematics; Liberal Arts Honors Program.	Providence, RI

Academic Appointments and Employment

2025-pres.	Brown University Department of Biostatistics Thomas J. & Alice M. Tisch Assistant Professor of Biostatistics	Providence, RI
2021-2025	Brown University Department of Biostatistics Assistant Professor of Biostatistics	Providence, RI
2017-2021	University of Pennsylvania Leonard Davis Institute for Health Economics Associate Fellow	Philadelphia, PA
2015-2016	Analysis Group Senior Analyst - Health economics and outcome research (HEOR).	Boston, MA
2013-2015	Analysis Group Analyst - HEOR.	Boston, MA

Awards

2025	Dean's Award for Excellence in Research Collaboration Awarded by the School of Public Health, Brown University.
2022	Salomon Faculty Research Award Awarded by the Office of the Vice President for Research (OVPR), Brown University.
2021	Saul Winegrad Award for Outstanding Dissertation Awarded by University of Pennsylvania, Biomedical Graduate Studies.
2020	ENAR Distinguished Student Paper Award Awarded by International Biometric Society Eastern North American Region's (ENAR) at 2020 ENAR Spring Meeting in Nashville, TN.

Awards (continued)

2020 ICHPS Travel Award

Awarded by International Conference on Health Policy Statistics (ICHPS) during the 2020 meeting in San Diego, CA.

Funding

Active

- 2025-2030 NIH R01DA062186-01A1 - Optimizing methadone treatment strategies for opioid use disorder in the era of fentanyl
Role: Co-investigator. Co-PIs: Francesca Beaudion, Rachel Wightman & Andrew Zullo.
- 2024-2027 PCORI ME2023C131348 - Bayesian Machine Learning for Causal Inference in EHR data with Missing Covariates
Role: Co-Principal Investigator. Co-PI: Roee Gutman.
- 2021-2026 NIH R01AI167694 - Data Science for Decision Support in the HIV Care Cascade
Role: Co-investigator. PI: Joseph Hogan.
- 2024-2027 NIH R01AG078759 - Benefits and Harms of Long-term Osteoporosis Pharmacotherapy: Impact of Treatment Length, Type, Switching, and Holidays.
Role: Co-investigator. PI: Kaley Hayes.
- 2024-2029 NIH R01AG088522 - Post-Acute Care Medication Use and Functional Recovery in Heart Failure.
Role: Co-investigator. Co-PIs: Goyal Parag; Andrew Zullo.
- 2024-2029 NIH RF1AG089541 - Prescribing Cascades among Nursing Home Residents with ADRD.
Role: Co-investigator. PI: Andrew Zullo.
- 2025-2026 NIH U01 Supplement Population Modeling of Bladder Cancer Detection and Control
Role: Co-investigator. PI: Thomas Trikalinos (Brown, HSPP).
- 2025-2030 NIH RF1 1RF1AG087210-01A1 - Benefits and Harms of Antihypertensive Management Strategies for Nursing Home Residents with ADRD.
Role: Co-investigator. PI: Daniel Harris (U Delaware, Epidemiology).

Completed

- 2022-2025 PCORI ME2021C32494 - Statistical Methods for Optimizing Dynamic Patient-Level Treatment and Monitoring Strategies
Role: Subcontract PI; PI: Jason Roy.

Publications

⁺mentee; *senior/co-senior author.

Submitted, Under Review, or Under Revision

- 1 Han⁺, S. W., Mitra, N., Hettinger, G., & ***Oganisian, A.** (n.d.). Bayesian sensitivity analyses for policy evaluation with difference-in-differences under violations of parallel trends. <https://arxiv.org/abs/2508.02970>
- 2 Mgonzo, M., Hunt, V., Zahiri, K., Kimaina, A., Delong, A., **Oganisian, A.**, Bacher, I., Kantor, R., Kim, N., Mwangi, A., Hogan, J., & Fraser, H. (n.d.). Machine learning based clinical decision support in low-and middle income countries: A scoping review of prospective clinical evaluation studies.

- 3 **Oganisian, A.** (n.d.). Stress-testing assumptions: A guide to bayesian sensitivity analyses in causal inference. <https://arxiv.org/abs/2602.23640>
- 4 **Oganisian, A.**, Hogan, J., Sang, E., DeLong, A., Mosong, B., Fraser, H., & Mwangi, A. (n.d.). Decision-support for hiv care retention: A case study in bayesian causal modeling with incomplete information. <https://arxiv.org/abs/2410.22481>
- 5 R⁺Grove, L., Zullo, A. R., Joshi, R., Corcoran, K. L., Dana, B. A., ***Oganisian, A.** & *Hayes, K. N. (n.d.). Gabapentinoid-loop diuretic prescribing cascades and health outcomes in older nursing home residents.
- 6 Sendhil, S., Cadarette, S., **Oganisian, A.**, Zullo, A., Aggarwal, S., Berry, S., Adegboye, M., & Hayes, K. (n.d.). Prior exposure to oral bisphosphonates and risk of fracture after denosumab discontinuation.
- 7 Zorzetto, D., Xie, Z., Stamp, J., **Oganisian, A.**, & Vito, R. D. (n.d.). Bayesian nonparametric causal inference for high-dimensional nutritional data via factor-based exposure mapping. <https://arxiv.org/abs/2601.16595>
- 8 Corcoran, K. L., Lo, D., Chowdhury, T., Rudolph, J. L., Resnik, L., Shireman, T. I., Ryskina, K., **Oganisian, A.**, Hashemi, A., Parag Goyal, M., & Zullo, A. R. (2026). Sacubitril/valsartan use across transitions between community, hospital, and skilled nursing facility settings.

Statistical Methodology

- 9 ⁺Fernández-Morales, E., Ko, E., Mitra, N., *Lee, Y., & ***Oganisian, A.** (2026). A bayesian framework for cost-effectiveness analysis with time-varying treatment decisions. *Biometrical Journal (In Press)*. <https://arxiv.org/abs/2601.14309>
- 10 ⁺Fernández-Morales, E., ***Oganisian, A.** & *Lee, Y. (2026). Bayesian shrinkage priors for penalized synthetic control estimators in the presence of spillovers. *Biometrics*. <https://doi.org/10.1093/biomtc/ujag054>
- 11 ⁺Wang, Y., ⁺Zhang, K., & ***Oganisian, A.** (2026). BayCauRETM: R package for bayesian causal inference for recurrent event outcomes. *Journal of Open Source Software*, 11(120), 9458. <https://doi.org/10.21105/joss.09458>
- 12 Howe, C., Hsieh, H.-C., Gantenberg, J., **Oganisian, A.**, Eaton, C., & Lu, H. (2026). Non-random selection with and without bias due to selecting on an exposure. *Epidemiology*. <https://doi.org/10.1097/EDE.0000000000002018>
- 13 **Oganisian, A.** (2026a). Considerations for estimating causal effects of informatively timed treatments. *Epidemiology*, 37(2), 166–176. <https://doi.org/10.1097/EDE.0000000000001943>
- 14 **Oganisian, A.** (2026b). Untangling sample and population level estimands in bayesian causal computation. *Journal of Causal Inference*, 14(1). <https://doi.org/10.1515/jci-2025-0058>
- 15 ⁺Ji, H., & ***Oganisian, A.** (2025). causalBETA: An R package for bayesian semiparametric casual inference with event-time outcomes. *Observational Studies*. <https://doi.org/10.1353/obs.2025.a963646>
- 16 **Oganisian, A.**, Girard, A., Steingrimsson, J. A., & Moyo, P. (2024). A bayesian framework for causal analysis of recurrent events with timing misalignment. *Biometrics*, 80(4). <https://doi.org/10.1093/biomtc/ujae145>
- 17 **Oganisian, A.**, Getz, K. D., Alonzo, T. A., Aplenc, R., & Roy, J. A. (2024). Bayesian semiparametric model for sequential treatment decisions with informative timing. *Biostatistics*, 25(4), 947–961. <https://doi.org/10.1093/biostatistics/kxad035>

- 18 **Oganisian, A.**, Mitra, N., & Roy, J. (2022). Hierarchical bayesian bootstrap for heterogeneous treatment effect estimation. *The International Journal of Biostatistics*. <https://doi.org/10.1515/ijb-2022-0051>
- 19 **Oganisian, A.**, Mitra, N., & Roy, J. A. (2021). A bayesian nonparametric model for zero-inflated outcomes: Prediction, clustering, and causal estimation. *Biometrics*, 77(1), 125–135. <https://doi.org/10.1111/biom.13244>
- 20 **Oganisian, A.**, & Roy, J. A. (2021b). A practical introduction to bayesian estimation of causal effects: Parametric and nonparametric approaches. *Statistics in Medicine*, 40(2), 518–551. <https://doi.org/10.1002/sim.8761>
- 21 Hubbard, R. A., Huang, J., Harton, J., **Oganisian, A.**, Choi, G., Utidjian, L., Eneli, I., Bailey, L. C., & Chen, Y. (2019). A bayesian latent class approach for ehr-based phenotyping. *Statistics in Medicine*, 38(1), 74–87. <https://doi.org/10.1002/sim.7953>
- 22 **Oganisian, A.** (2019). Chirp: Chinese restaurant process mixtures for regression and clustering. *The Journal of Open Source Software*, 4, 1287. <https://doi.org/10.21105/joss.01287#>

Invited Reviews, Commentaries, and Book Chapters

- 23 Steingrimsson, J., Li, B., **Oganisian, A.**, Lee, Y., & Torres, P. (2026+). Chapter 11: Generalizability of measures of biomarker performance. In G. Desachy & G. D'Angelo (Eds.), *Biomarkers in drug development: Statistical methods and applications (in press)*. Chapman & Hall/CRC Biostatistics Series. ISBN: 9781032996714.
- 24 **Oganisian, A.** (2025). Invited book review - “Bayesian Precision Medicine” by Peter F. Thall. *Biometrics*. <https://doi.org/10.1093/biomtc/ujaf108>
- 25 **Oganisian, A.**, & Linero, A. (2025). Priors and propensity scores in bayesian causal inference. *Observational studies*, 11(1), 47. <https://doi.org/10.1353/obs.2025.a956841>
- 26 **Oganisian, A.**, & Roy, J. A. (2020). Invited discussion - bayesian regression tree models for causal inference: Regularization, confounding, and heterogeneous effect. *Bayesian Analysis*, 998–1006. <https://doi.org/10.1214/19-BA1195>

Collaborative

- 27 Radjabova, K., Joyce, N., Hsu, Y.-C., McBurney, S., **Oganisian, A.**, & Zullo, A. (2026). Concordance between the minimum data set kidney impairment i1500 item and egfr records in nursing homes. *Journal of Post-Acute and Long-Term Care Medical Association*. <https://doi.org/10.1016/j.jamda.2026.106176>
- 28 Zullo, A. R., Balog, S., Khan, M. A., Pfeiffer, M. R., Riester, M. R., Curry, A. E., Beaudoin, F. L., **Oganisian, A.**, Marshall, B. D., Dow, P. M., Dana, B. A., & Joyce, N. R. (2026). Adverse drug events associated with opioid treatment for pain after motor vehicle crash. *Journal of Pain Research*, 19, 1–14. <https://doi.org/10.2147/JPR.S529856>
- 29 Xie, K., Korzun, J., Zhou, D. J., Chang, E., Ghosn, N. J., Lavelle, S., **Oganisian, A.**, Acton, E. K., Gelfand, M. A., Roth, D., Litt, B., & Ellis, C. A. (2025). Comparative effectiveness of anti-seizure medications in emulated trials using medical informatics. *Brain*. <https://doi.org/10.1093/brain/awaf238>
- 30 Hayes, K., Zullo, A., Berry, S., **Oganisian, A.**, Aggarwal, S., Adegboye, M., & Cadarette, S. (2025). Osteoporosis medication use over time in the united states and canada. *Osteoporosis International*. <https://doi.org/10.1007/s00198-025-07484-3>

- 31 Hayes, K. N., Sendhil, S. R., Aggarwal, S., Zullo, A. R., Berry, S. D., **Oganisian, A.**, Adegboye, M., & Cadarette, S. (2025). Real-world differences in denosumab persistence, reinitiation, and switching among cohorts of older adults in Canada and the United States. *Journal of Bone and Mineral Research Plus*. <https://doi.org/10.1093/jbmrpl/ziaf061>
- 32 Hayes, K. N., Belanger, E., **Oganisian, A.**, Joshi, R., Xia, W., Grove, L., Corcoran, K., & Zullo, A. R. (2025). Predictors of a gabapentinoid–loop-diuretic prescribing cascade in U.S. nursing home residents. *Journal of the American Geriatrics Society*. <https://doi.org/10.1111/jgs.70219>
- 33 Khan, M., Joyce, N., Pfeiffer, M., Riester, M., Ott, B., **Oganisian, A.**, Curry, A., Margolis, S., & Zullo, A. (2025). Effects of initiating different antidepressant subclasses on motor vehicle crash risk among older adults with depression. *Journal of the American Geriatrics Society*. <https://doi.org/10.1111/jgs.19527>
- 34 Sargsyan, A., Tamamyan, G., **Oganisian, A.**, ... & Bardakhchyan, S. (2025). Nationwide insights on immunotherapy in a low- and middle-income country: Armenia's struggle for equitable cancer care in an out-of-pocket system. *JCO Global Oncology*. <https://doi.org/10.1200/GO-25-00040>
- 35 Sendhil, S., Cadarette, S., Aggarwal, S., Berry, S., Zullo, A., **Oganisian, A.**, & Hayes, K. (2025). Follow-on osteoporosis therapy after denosumab discontinuation among Medicare beneficiaries. *Osteoporosis International*. <https://doi.org/10.1007/s00198-025-07668-x>
- 36 Zhang, S., Zullo, A. R., Mor, V., Berry, S. D., Grove, L. R., **Oganisian, A.**, & Hayes, K. N. (2025). Hypertension treatment, blood pressure, and deprescribing among US nursing home residents with and without dementia before and after the COVID-19 pandemic. *Journal of the American Medical Directors Association*. <https://doi.org/10.1016/j.jamda.2025.105883>
- 37 Hayes, K. N., **Oganisian, A.**, & Kiel, D. P. (2024). Improving the value and interpretation of observational studies comparing treatment effects of osteoporosis medications depends on standardized reporting of methods. *Journal of Bone and Mineral Research*, 39(7), 807–809. <https://doi.org/10.1093/jbmr/zjae099>
- 38 Li, Y., Vader, D. T., **Oganisian, A.**, Boge, C. L. K., Hayes, M., Newman, A., Olson, T., Freedman, J., Elgarten, C. W., & Fisher, B. T. (2023). Effect of cytomegalovirus infection on post-transplant hospitalization days among children undergoing allogeneic hematopoietic cell transplantation: A marginal structural model approach. *Pediatric Transplantation*, e14526. <https://doi.org/10.1111/petr.14526>
- 39 Huang, A. W., Haslberger, M., Coulibaly, N., Galárraga, O., **Oganisian, A.**, Belbasis, L., & Panagiotou, O. A. (2022). Multivariable prediction models for health care spending using machine learning: A protocol of a systematic review. *Diagnostic and Prognostic Research*, 6(1), 1–5.
- 40 Harrigan, J. J., Abdallah, H., Clarke, E. L., **Oganisian, A.**, Roy, J. A., Lautenbach, E., Reese, E., Wernovsky, M., Tolomeo, P., Morawski, Z., Jacob, J., Grippi, M. A., & Kelly, B. J. (2021). Respiratory microbiome disruption and risk for ventilator-associated lower respiratory tract infection. *Clinical Infectious Diseases*. <https://doi.org/10.1093/cid/ciab678>
- 41 Takvorian, S. U., **Oganisian, A.**, Mamtani, R., Mitra, N., Shulman, L. N., Bekelman, J. E., & Werner, R. M. (2020). Association of Medicaid Expansion Under the Affordable Care Act With Insurance Status, Cancer Stage, and Timely Treatment Among Patients With Breast, Colon, and Lung Cancer. *JAMA Network Open*, 3(2). <https://doi.org/10.1001/jamanetworkopen.2019.21653>
- 42 Harrison, J. M., **Oganisian, A.**, Grande, D. T., Mitra, N., Chhabra, M., & Chaiyachati, K. H. (2020). Economic outcomes of insurer-led care management for high-cost Medicaid

- patients. *The American journal of managed care*, 26(7), 310–316.
<https://doi.org/10.37765/ajmc.2020.43769>
- 43 Singh, P., Forman, H., Adamson, A. S., Mostaghimi, A., Ogdie, A. R., **Oganisian, A.**, & Barbieri, J. S. (2019). Impact of industry payments on prescribing patterns for tumor necrosis factor inhibitors among medicare beneficiaries. *Journal of General Internal Medicine*, 34(2), 176–178. <https://doi.org/10.1007/s11606-018-4698-x>
 - 44 Grandhi, N., Mohiuddin, J., **Oganisian, A.**, Manjunath, S., Mitra, N., Plastaras, J., Metz, J., Ben-Josef, E., & Wojcieszynski, A. (2019). Association of radiation dose with local failure in hepatocellular carcinoma (hcc). *International Journal of Radiation Oncology*Biophysics*, 105(1, Supplement), E219–E220.
<https://doi.org/10.1016/j.ijrobp.2019.06.1970>
 - 45 Vekeman, F., Pina-Garza, J. E., Cheng, W. Y., Tuttle, E., Giguere-Duval, P., **Oganisian, A.**, Damron, J., Duh, M. S., Shen, V., Saurer, T. B., Montouris, G. D., & Isojarvi, J. (2019). Development of a classifier to identify patients with probable lennox-gastaut syndrome in health insurance claims databases via random forest methodology. *Current Medical Research and Opinion*, 35(8), 1415–1420. <https://doi.org/10.1080/03007995.2019.1595552>
 - 46 Wan, J., **Oganisian, A.**, Spieker, A. J., Hoffstad, O. J., Mitra, N., Margolis, D. J., & Takeshita, J. (2019). Racial/ethnic variation in use of ambulatory and emergency care for atopic dermatitis among us children. *Journal of Investigative Dermatology*, 139(9), 1906–1913.e1. <https://doi.org/10.1016/j.jid.2019.02.024>

Invited Talks

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| 07/2026 | Joint Statistical Meetings (JSM) 2026. Boston, MA.
<i>Causal Inference with Missing Covariates: A Unified Bayesian Perspective</i> |
| 04/2026 | New York University, Department of Public Health - Division of Biostatistics. New York, NY.
<i>Causal Inference with Missing Covariates: A Unified Bayesian Perspective</i> |
| 12/2025 | IMS International Conference on Statistics and Data Science (ICSDS) 2025. Seville, Spain
<i>Bayesian Semiparametric Inference for Dynamic Treatment Rules with Incomplete Information</i> |
| 12/2025 | Computational and Methodological Statistics (CMStatistics) 2025. London, United Kingdom
<i>Causal Inference with Missing Covariates: A Unified Bayesian Perspective and Improved Methods</i> |
| 06/2025 | Western North American Region (WNAR) 2025. Whistler, Canada
<i>Bayesian Semiparametric Inference for Dynamic Treatment Strategies with Informative Timing</i> |
| 06/2025 | Western North American Region (WNAR) 2025. Whistler, Canada
<i>Causal Inference with Recurrent Event Outcomes: Estimands, Identification, and Bayesian Inference</i> |
| 05/2025 | StanBio Connect 2025. Virtual.
<i>Bayesian Causal Inference with Survival Outcomes</i> |
| 03/2025 | Eastern North American Region (ENAR) 2025. New Orleans, LA.
<i>Causal Inference with Recurrent Event Outcomes: Estimands, Identification, and Bayesian Inference</i> |

Invited Talks (continued)

- 10/2024 **2024 NYU Langone Biostatistics Symposium: Advances in Causal Inference Methods. New York, NY.**
Bayesian Semiparametric Inference for Dynamic Treatment Strategies
- 11/2024 **Statistical and Quantitative Sciences Seminar (SQSS) at Takeda Pharmaceuticals. Boston, MA.**
Bayesian Causal Inference in Clinical Trials with Dynamic Treatment Regimens
- 09/2024 **Emory University, Department of Biostatistics and Bioinformatics. Atlanta, GA.**
Bayesian Semiparametric Inference for Dynamic Treatment Strategies with Informative Timing
- 09/2024 **Banff International Research Station (BIRS) Workshop 2024. Oaxaca, Mexico.**
Bayesian Semiparametrics for Sequential Decision-Making: Applications in Acute Myeloid Leukemia
- 08/2024 **Joint Statistical Meetings (JSM) 2024. Portland, OR.**
Bayesian Semiparametric Models for Sequential Treatments Strategies: Applications in Acute Myeloid Leukemia
- 07/2024 **International Society for Bayesian Analysis (ISBA) 2024. Venice, Italy.**
Bayesian Models for Counterfactual Prediction and Optimization with Incomplete Information: Applications in HIV Care Retention
- 03/2024 **International Workshop on HIV and Hepatitis Observational Databases (IWHOD) 2024. Vilamoura, Portugal.**
Bayesian ML for Predicting Return-Time Outcomes for HIV Care Retention
- 12/2023 **Computational and Methodological Statistics (CMstatistics) 2023. Berlin, Germany.**
Bayesian semiparametric models for dynamic treatment rules with incomplete time-varying covariates
- 11/2023 **University of Massachusetts at Amherst, Department of Mathematics & Statistics. Amherst, MA.**
Bayesian Semiparametric Causal Inference for Sequential Treatment Decisions with Incomplete Information
- 08/2023 **Joint Statistical Meetings (JSM) 2023. Toronto, Canada.**
Bayesian Semiparametric Models for Sequential Treatments Strategies with Informative Timing
- 07/2023 **Econometrics & Statistics (EcoSta) 2023. Tokyo, Japan.**
Bayesian semiparametric models for informatively timed, dynamic treatments with incomplete covariate trajectories
- 05/2023 **University of Minnesota, Institute for Research in Statistics and Applications (IRSA). Minneapolis, MN.**
Bayesian Modeling and Computation in Causal Inference – Applications in Sequential Decision-Making
- 03/2023 **Eastern North American Region (ENAR) 2023. Nashville, TN.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in with Informative Timing
- 01/2023 **International Conference on Health Policy Statistics (ICHPS) 2023. Phoenix, AZ.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in with Informative Timing

Invited Talks (continued)

- 12/2022 **Computational and Methodological Statistics (CMstatistics) 2022. London, United Kingdom.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in with Informative Timing
- 10/2022 **BIO-PhRMA Workshop on Advancing Analytical Methodologies for Unmeasured Confounders in RWE. Virtual.**
Bayesian Methods for Causal Inference: Using Priors to assess Sensitivity to Unmeasured Confounding
- 10/2022 **International Biometrics Society (IBS) Journal Club. Virtual.**
Discussion of "Zero-Inflated Beta Distribution Regression Modeling" (invited discussant)
- 08/2022 **Joint Statistical Meetings (JSM) 2022. Washington DC, USA.**
Cultural fit of Nonparametric Bayes (invited panel discussion)
- 07/2022 **International Society for Bayesian Analysis (ISBA) 2022. Montreal, Canada.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in with Informative Timing
- 07/2022 **International Biometrics Conference (IBC) 2022. Riga, Latvia.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in with Informative Timing
- 06/2022 **Statistical Society of Canada (SSC) 2022 annual meeting. Virtual.**
Hierarchical Bayesian Bootstrap for Heterogeneous Treatment Effect Estimation
- 02/2022 **Center for Causal Inference, University of Pennsylvania. Virtual.**
Bayesian Semiparametric Model for Sequential Treatment Decisions in Continuous Time
- 01/2022 **Department of Biostatistics, Vanderbilt University. Virtual.**
Hierarchical Bayesian Bootstrap for Heterogeneous Treatment Effect Estimation
- 12/2021 **Computational and Methodological Statistics (CMstatistics) 2021. London, UK.**
Hierarchical Bayesian Bootstrap for Heterogeneous Treatment Effect Estimation
- 05/2021 **Novartis - Advanced Methods and Data Science Forum. Virtual.**
Bayesian Estimation of Causal Effects: Parametric and Nonparametric Approaches
- 01/2021 **University of Washington, Department of Biostatistics. Virtual.**
A Bayesian nonparametric model for zero-inflated outcomes: prediction, clustering, and causal inference.
- 01/2021 **Brown University, Department of Biostatistics. Virtual.**
A Bayesian nonparametric model for zero-inflated outcomes: prediction, clustering, and causal inference.
- 11/2020 **Center for Causal Inference, University of Pennsylvania. Virtual.**
Hierarchical Bayesian Bootstrap for Heterogeneous Treatment Effect Estimation
- 08/2020 **Stan Conference (StanCon). Virtual.**
Bayesian Causal Inference in Stan: Partial Pooling and Sensitivity Analysis
- 06/2020 **Department of Population Health Science and Policy. Icahn School of Medicine at Mt. Sinai. Virtual.**
Bayesian Nonparametric Causal Estimation with Zero-Inflated Outcomes
- 01/2020 **International Conference on Health Policy Statistics (ICHPS). San Diego, CA.**
An all-in-one Bayesian nonparametric model for medical cost prediction, clustering, and causal estimation

Service

Editorial Board Service

2026-pres. Associate Editor, Journal of the Royal Statistical Society: Series C

Referee Service

Biometrics, Biostatistics, Statistics in Medicine, Journal of the American Statistical Association, Journal of the Royal Statistical Society: Series C, Annals of Applied Statistics, International Journal of Biostatistics, Observational Studies, Journal of Causal Inference, American Journal of Epidemiology, Econometrics and Statistics, Epidemiology, Epidemiologic Methods, Political Analysis.

Grant Review Service

- 2025 Scientific Reviewer; Patient-Centered Outcomes Research Institute (PCORI).
- 2024 Scientific Reviewer; Patient-Centered Outcomes Research Institute (PCORI).
- 2024 Scientific Reviewer, National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS).
- 2024 Scientific Reviewer, Canadian Statistical Sciences Institute (CANSSI).

School and Departmental Service

- 2023 Faculty search committee. Department of Epidemiology, Brown University.
- 2023 Faculty search committee. Department of Biostatistics, Brown University.
- 2023-2025 Seminar Series Organizer. Department of Biostatistics, Brown University.
- 2022-2024 Masters in Public Health (online) Admission Committee. Brown School of Public Health.
- 2021-pres. Academic Programs Committee, Department of Biostatistics, Brown University.
- 2021-2023 PhD Admission Committee, Department of Biostatistics, Brown University.
- 2022-pres. Social Media Faculty Coordinator, Department of Biostatistics, Brown University.

Professional Community Service

- 2026 Co-Chair, Scientific Program Committee. Eastern North America Region (ENAR) 2027 meeting.
- 2025 Chair, Student Committee. International Conference on Health Policy Statistics (ICHPS).
- 2024 Student Paper Award Committee. Eastern North American Region (ENAR).
- 2023 Scientific Committee. Bayesian Young Statisticians Meeting (BAYSM).
- 2023 Outreach Committee. International Conference on Health Policy Statistics (ICHPS).
- 2022 Student Poster Award Committee. New England Statistical Symposium (NESS).
- 2021 Program Committee. NeurIPS Workshop "Your Model is Wrong: Robustness and misspecification in probabilistic modeling"
- 2021 Program Committee. ICML Workshop "The Neglected Assumptions In Causal Inference"
- 2020 Program Committee. NeurIPS Workshop "Consequential Decision Making in Dynamic Environments"

Organized Conference Sessions

- 12/2023 Invited Session Organizer and Chair for "Bayesian Nonparametrics and Machine Learning Methods for Causal Inference". Computational and Methodological Statistics (CMStatistics) 2023.

Service (continued)

- 12/2022 Invited Session Organizer and Chair for “Bayesian nonparametrics for causal inference: Part II”. Computational and Methodological Statistics (CMStatistics) 2022.
- 07/2022 Invited Session Organizer and Chair for “Recent Developments in Probabilistic Machine Learning Methods for Causal Inference”. International Biometrics Conference (IBC) 2022.
- 05/2021 Co-organizer. “Frontiers of Causal Inference in Data Science: Perspectives from Leaders in Tech and Academia”. University of Pennsylvania.
- 12/2021 Session Organizer. “Causal inference challenges in health policy decision making”. CMStatistics.
- 10/2020 Session Chair, “Causal Inference Methods for Health Policy Research. International Conference on Health Policy Statistics”. San Diego, CA.

Other Committee/Board Memberships

- 2021-2022 Stan Governing Body (elected to 1-year term). <https://mc-stan.org/>.

Professional Memberships

- 2017-pres. American Statistical Association
- 2017-pres. International Biometric Society, Eastern North American Region (ENAR)

Teaching and Mentorship

Course Instruction at Brown University

- Fall, 2021-2024 PHP2515: Fundamentals of Probability and Statistical Inference.
- Spring, 2024-2026 PHP2530: Bayesian Statistical Methods

Short Course Instruction

- 2026 American Causal Inference Conference (ACIC).
Instructor; half-day session “Stress-Testing Assumptions: Sensitivity Analyses in Bayesian Causal Inference”.
- 2025, 2026 Center for Causal Inference Summer Institute, UPenn.
Instructor; half-day session “Bayesian Causal Inference”.

Guest Lectures

- 2026 EPID650 Advanced Seminar in Epidemiology, University of Delaware.
Lecture title: Bayesian Causal Inference with Recurrent Event Outcomes.
- 2026 EPI2232: Modern Foundations of Causal Inference in Epidemiologic Research
Lecture title: Bayesian Approach to Causal Inference
- 2025 BSTA790 Causal Inference in Biomedical Research, UPenn
Lecture title: Overview of Bayesian Methods for Causal Inference.
- 2022 PHP2610 Causal Inference and Missing Data, Brown.
Lecture title: Bayesian Inference for Causal effects of Dynamic Treatment Rules.
- 2020 BSTA790 Causal Inference in Biomedical Research, UPenn
Lecture title: Overview of Bayesian Methods for Causal Inference.
- 2020 BSTA670 Programming and Computation for Biomedical Data Science, UPenn
Lecture title: Bayesian Computation: Metropolis-Hastings Samplers and Monte Carlo Integration.

Teaching and Mentorship (continued)

Biostatistics Mentees, with completion year and initial placement

Postdoctoral

2026 Dafne Zorzetto; Assistant Professor, Department of Population Health Sciences, School of Public Health, Georgia State University.

Doctoral

2026 Esteban Fernandez; Research Data Scientist, Google.

Masters

2026 Yuzhou Peng; Biostatistician, University of Utah.

2026 Zizhao Xie; Biostats PhD program, University of Minnesota.

2026 Valentin Kirilenko; Senior Computational Statistician, Eli Lilly.
*Biostatistics ScM Thesis award winner.

2025 Zhaoxiang Ding; Senior Computational Statistician, Eli Lilly.

2024 Tova Ibbotson; Senior Statistician, GSK.

2024 Zihan Zhou; Biostats PhD program, Penn. State University

2023 Anthony Girard; Statistical Analyst, University of Pennsylvania

2023 Nancy Liu; Biostatistician, Rutgers University

Undergraduate

2026 Charly Castillo; Quantitative Analyst, Bank of America.

PhD Dissertation Committee Member

Chunnan Liu, Department of Biostatistics, 2028

Chelsie Cintron, Department of Epidemiology, 2027

Yalin Deng, Department of HSPP, 2027

Nicholas Lewis, Department of Biostatistics, 2025

Blake Hansen, Department of Biostatistics, 2025

Gauri Kamat, Department of Biostatistics, 2024.

Meghan Cupp, Department of Epidemiology, 2024