Georgia Papadogeorgou

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Education

2013–2018	Ph.D., Biostatistics, Harvard University Thesis Title: Causal Inference Methods in Air Pollution Research Advisors: Francesca Dominici, Corwin M. Zigler
2013-2015	M.A. Biostatistics, Harvard University
2009–2013	B.Sc., Mathematics, National and Kapodistrian University of Athens

Employment

Aug 2020–*present*	**Assistant Professor** **University of Florida, Department of Statistics**
Jul 2018 – Aug 2020	**Postdoctoral Associate** **Duke University, Department of Statistical Science** Mentors: David Dunson, Fan Li
May – Aug 2015	**Decision Support Intern** **Google:** Geo Data Analytics Team Supervisor: Angela Schoergendorfer

Publications

*Student author †Equally-contributing authors

[1] **Papadogeorgou G**,*Samanta S. (2023+) Spatial causal inference in the presence of unmeasured confounding and interference. arXiv:2303.08218

[2] **Papadogeorgou G**, Liu B, Li F, Li F. (2023+) Addressing selection bias in cluster randomized experiments via weighting. arXiv:2309.07365

[3] *Zhou L, **Papadogeorgou G**. (2023+) Bayesian inference for aggregated Hawkes processes. arXiv:2211.16552

[4] **Papadogeorgou G**, Bello C, Ovaskainen O, Dunson DB. (2023) Covariate-informed latent interaction models: Addressing geographic & taxonomic bias in predicting bird-plant interactions. *Journal of the American Statistical Association. Forthcoming.* arXiv:2103.05557

[5] **Papadogeorgou G**†, Menchetti F†, Choirat C, Wasfy JH, Zigler CM, Mealli F. (2023) Evaluating Federal Policies Using Bayesian Time Series Models: Estimating the Causal Impact of the Hospital Readmissions Reduction Program. *Health Services and Outcomes Research Methodology. Forthcoming.* arXiv:1809.09590

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

[7] Li F, Tian Z, Bobb J, **Papadogeorgou G**, Li F (2022). Clarifying Selection Bias in Cluster Randomized Trials. *Clinical Trials*, 19(1): 33-41. arXiv:2107.07967

[8] Antonelli JL, **Papadogeorgou G** and Dominici F (2022) Causal inference in high dimensions: A marriage between Bayesian modeling and good frequentist properties. *Biometrics*, 78(1): 100-114. arXiv:1805.04899

[9] **Papadogeorgou G**. (2022) Discussion of the manuscript: Spatial+ a novel approach to spatial confounding. *Biometrics*, 78(4): 1305-1308. arXiv:2107.01644

[10] Kim J, *et al* (including **Papadogeorgou G**) (2022) Reproducibility of Neuroretinal Rim Measurements Obtained from High-Density Spectral Domain Optical Coherence Tomography Volume Scans. *Clinical Ophthalmology*, 16:2595-2608.

[11] **Papadogeorgou G**, Zhang Z, Dunson DB (2021). Soft Tensor Regression. *Journal of Machine Learning Research*, 22(219): 1-53. arXiv:1910.09699

[12] Yang S, Lorenzi E, **Papadogeorgou G**, Wojdyla DM, Li F, Thomas EL (2021). Propensity Score Weighting for Causal Subgroup Analysis. *Statistics in Medicine*, 40(19): 4294-4309. arXiv:2010.02121

[13] Zigler CM and **Papadogeorgou G** (2021). Bipartite causal inference with interference. *Statistical Science*, 36(1): 109-123. arXiv:1807.08660

[14] **Papadogeorgou G** and Dominici F (2020). A Causal Exposure Response Function with Local Adjustment for Confounding. *Annals of Applied Statistics*, 14(2): 850-871. arXiv:1806.00928

[15] **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.

[16] Schnell P and **Papadogeorgou G** (2020) Mitigating Unobserved Spatial Confounding when Estimating the Effect of Supermarket Access on Cardiovascular Disease Deaths. *Annals of Applied Statistics*, 14(4): 2069-2095. arXiv:1907.12150.

[17] **Papadogeorgou G**, Mealli F and Zigler CM (2019). Causal inference with interfering units with cluster and population level treatment allocation programs. *Biometrics*, 75(3): 778-787. arXiv:1711.01280

[18] **Papadogeorgou G** and Li F (2019). Discussion of "Penalized Spline of Propensity Methods for Treatment Comparison". *Journal of the American Statistical Association*, 114(525): 32-35.

[19] **Papadogeorgou G**, Kioumourtzoglou M, Braun D, Zanobetti A (2019). Low Levels of Air Pollution and Health: Effect Estimates, Methodological Challenges, and Future Directions. *Current Environmental Health Reports*, 6(3): 105-115.

[20] Antar H, *et al* (including **Papadogeorgou G**) (2019). Analysis of Neuroretinal Rim by Age, Race, and Gender Using High-Density Three-Dimensional Spectral Domain Optical Coherence Tomography. *Journal of Glaucoma*, 28(11): 979:988.

[21] Liu Y, *et al* (including **Papadogeorgou G**) (2019). Diagnostic Capability of 3D Peripapillary Retinal Volume for Glaucoma Using Optical Coherence Tomography Customized Software. *Journal of Glaucoma*, 28(8): 708–717.

[22] **Papadogeorgou G**, Choirat C, Zigler CM (2018). Adjusting for Unmeasured Spatial Confounding with Distance Adjusted Propensity Score Matching. *Biostatistics*, 20(2): 256-272. arXiv:1610.07583v3

[23] Verticchio Vercellin AC, *et al* (including **Papadogeorgou G**) (2018). Diagnostic Capability of Three-Dimensional Macular Parameters for Glaucoma Using Optical Coherence Tomography Volume Scans. *Investigative Ophthalmology & Visual Science*, 59(12): 4998-5010.

[24] Poon LYC, *et al* (including **Papadogeorgou G**) (2018). Effects of Age, Race, and Ethnicity on the Optic Nerve and Peripapillary Region Using Spectral-Domain OCT 3D Volume Scans. *Translational Vision Science & Technology*, 7(6): 12.

[25] Khoueir Z, *et al* (including **Papadogeorgou G**) (2017). Diagnostic Capability of Peripapillary Three-dimensional Retinal Nerve Fiber Layer Volume for Glaucoma Using Optical Coherence Tomography Volume Scans. *American Journal of Ophthalmology*, 182, 180-193.

Funding

[1] National Science Foundation; Algorithms for Threat Detection Program; DMS-2124124. Title: *ATD: Collaborative Research: Causal Inference with Spatio-Temporal Data on Human Dynamics in Conflict Settings.* Role: **Principal Investigator** (with Kosuke Imai and Jason Lyall). 9/1/2021 – 8/31/2024. $285,343 (Total amount: $485,340).

[2] 2021 University of Florida Global Fellowship. $5,000.

Statistical software

geocausal	CRAN package. (link) Implementing causal inference methodology with spatio-temporal point pattern data. Authors: *Mukaigawara M, Papadogeorgou G, Lyall J, Imai K.
Interference	Available on Github. (link) Inverse probability weighting estimators for causal inference with partial or bipartite interference.
BiasedNetwork	Available on Github. (link) Latent factor network model with bias correction for unrecorded interactions.
DAPSm	Available on Github. (link) Distance adjusted propensity score matching for accounting for unmeasured spatial confounders.
LERCA	Available on Github. (link) Causal exposure-response function estimation with differential confounding at different exposure levels.

Honors and Awards

Jan 2019	UF Statistics Winter Workshop Travel Award, Gainesville FL, January 18-19, 2019.
Apr 2018	Young investigator oral presentation award. European Causal Inference Meeting, Florence Italy, April 11-13, 2018.
Fall 2016	Certificate of Distinction in Teaching. Applied Bayesian Analysis. Fall semester 2016.
Nov 2016	Rose Traveling Fellowship. Funding for travel to Florence, Italy to work with Dr. Fabrizia Mealli.
Aug 2016	Student Paper Award. *2016 Joint Statistical Meeting* - Health Policy Statistics Section, Chicago IL, July 30-Aug 4, 2016.
Jun 2016	Poster Award Winner. *ISBA 2016 World Meeting*-EnviBayes, Sardinia Italy, June 13-17, 2016.
Spring 2016	Certificate of Distinction in Teaching. Statistical Inference I. Spring semester 2016.
Spring 2016	The Derek Bok Center Distinction in Teaching award. Statistical Inference I. Spring semester 2016.
Oct 2015	Student Travel Award. Poster presentation at the 2015 *International Conference of Health Policy Statistics*, Providence, Oct 7-9, 2015.
2011-2012	Honorary title from the State Scholarship Foundation for 2nd best GPA (9.7/10) among the third year students of the Department of Mathematics, University of Athens.
2010-2011	Honorary title from the State Scholarship Foundation for 2nd best GPA (9.8/10) among the second year students of the Department of Mathematics, University of Athens.
2009-2010	Honorary title from the State Scholarship Foundation for 3rd best GPA (9.7/10) among the first year students of the Department of Mathematics, University of Athens.

Teaching Experience

University of Florida

STA 6326: Introduction to Theoretical Statistics I. PhD level.	Fall 2022, Fall 2023
STA 4322: Introduction to Statistical Theory. Undergraduate level.	Spring 2021, Fall 2021, Fall 2023
STA 4321: Introduction to Probability. Undergraduate level.	Fall 2020, Fall 2021

Harvard University

Applied Bayesian Analysis. Teaching Assistant. Master's level.	Fall 2016, Fall 2017
Operational Math. Instructor. PhD level.	Summer 2017
Statistical Inference I. Teaching Assistant. PhD level.	Spring 2015, Spring 2016

Student Advising

Lingxiao Zhou	PhD student	Fall 2021 to present
Zhaoyan Song	PhD student	Fall 2022 to present
Heejun Shin	PhD thesis committee member	ongoing
Jiayuan (Patrick) Zhou	Research assistant & PhD thesis committee member	Fall 2021, Spring 2022
Srijata Samanta	Research assistant	Fall 2021, Spring 2022
Yutong Shi	Undergraduate research	Spring 2021 – Spring 2022
Shiyu Li	Master's thesis committee member	2021
Deborah Rozum	Master's thesis committee member	2021
Trace Myers	Undergraduate research	Summer 2021
Alexander Theophilopoulos	Undergraduate research	Fall 2020

Invited Presentations

[1] *2023 Algorithms for Threat Detection PI Workshop*, George Mason University, Oct 10-12, 2023.

[2] *Johns Hopkins University, Department of Biostatistics,* September 18, 2023.

[3] Distinguished Faculty Seminar, *University of Pennsylvania, Center for Causal Inference*, September 14, 2023.

[4] *Harvard Data Science Initiative*, Causal seminar, April 6, 2023.

[5] *Carnegie Mellon University, Department of Statistics & Data Science*, April 3, 2023.

[6] *Association for Women in Mathematics*, UF chapter, Gainesville, Florida, March 27, 2023.

[7] *ENAR 2023 Spring Meeting*, Nashville, TN, March 19–22, 2023.

[8] *IMS International Conference on Statistics and Data Science*, Florence, Italy, December 13–16, 2022.

[9] *Athens University of Economics and Business, Department of Statistics,* December 9, 2022.

[10] *RAND Statistics seminar.* October 26, 2022.

[11] *University of Wisconsin–Madison, Department of Statistics*, October 12, 2022.

[12] *2022 ISBA World Meeting*, Montreal, Canada, June 26–July 1, 2022.

[13] *University of Copenhagen, Department of Mathematical Sciences*, June 15, 2022.

[14] *2022 Algorithms for Threat Detection Workshop*, George Mason University, May 23-25, 2022.

[15] *European University Institute, Department of Economics*, Florence, Italy, May 16, 2022.

[16] *Università degli Studi di Firenze, Dipartimento di Statistica, Informatica, Applicazioni (DiSIA)*, Florence, Italy, May 13, 2022.

[17] *Colorado State University, Department of Statistics*, March 28, 2022.

[18] *Bocconi University, Department of Decision Sciences*, February 22, 2022.

[19] *Learning from interventions*, Simons Institute at UC Berkeley, February 14–17, 2022.

[20] *Columbia University, Department of Biostatistics*, February 10, 2022.

[21] *Boston University, Department of Mathematics & Statistics*, February 3, 2022.

[22] *Columbia University, Department of Statistics*, January 24, 2022.

[23] *CMStatistics*, Online, December 18-20, 2021.

[24] *Florida State University, Department of Statistics*, October 29, 2021.

[25] *University of Texas at Austin, Department of Statistics and Data Sciences*, October 1, 2021.

[26] *University of Florida, Department of Biostatistics*, August 27, 2021.

[27] *ISBA*, Online, June 28-July 2, 2021.

[28] *Extreme Value Analysis*, Online, June 28-July 2, 2021.

[29] *UMass Amherst, Department of Mathematics and Statistics*, April 16, 2021.

[30] *Causal inference group, UC Berkeley*, April 14, 2021.

[31] *BLAST and Causal Inference working groups, Johns Hopkins University*, March 3, 2021.

[32] *Online causal inference seminar*, Discussant, February 23, 2021.

[33] *CMStatistics*, Online, December 20, 2020.

[34] *University of Pittsburgh, Department of Statistics*, October 6, 2020.

[35] *International Biometric Conference*, Discussant in session on "Spatial and spatio-temporal confounding in biometrical applications," August 4, 2020.

[36] *Online Causal Inference Seminar*, July 28, 2020.

[37] Public Health Modeling unit, *Yale School of Public Health*, New Haven, CT, February 7, 2020.

[38] *Universidad Pública de Navarra, Statistics, Computer Science, and Mathematics Department*, Pamplona, Spain, December 19, 2019.

[39] *SAMSI, Program on Causal Inference, Opening workshop*, Durham, NC, December 9-11,2019.

[40] *École Polytechnique Fédérale de Lausanne*, Lausanne, Switzerland, November 28, 2019.

[41] *Bayesian Causal Inference Workshop*, Ohio State University, Columbus, OH, June 2-4, 2019.

[42] *Atlantic Causal Inference Conference*, Montreal, Canada, May 22-24, 2019.

[43] *The University of Texas at Austin, Department of Statistics and Data Sciences*, May 10, 2019.

[44] *U.S. Environmental Protection Agency*, Feb 28, 2019.

[45] Environmental Epidemiology seminar, *University of North Carolina*, Feb 8, 2019.

[46] *SAMSI*, Online presentation, Jan 19, 2018.

[47] *International Conference on Health Policy Statistics*, Charleston SC, Jan 10-12, 2018.

[48] *University of Minnesota, Department of Biostatistics*, Minneapolis MN, Oct 25, 2017.

Workshops

[1] Workshop title: Bayesian Causal Inference for Experimental and Observational Studies.
Section title: Bayesian Adjustment for Confounding with Continuous Treatments: Introduction and Code.
Speakers: Fabrizia Mealli, Fan Li, Laura Forastiere, Georgia Papadogeorgou.
Atlantic Causal Inference Conference, Montreal, Canada, May 22-24, 2019.

Contributed Posters and Presentations

[1] Oral presentation at *CMStatistics*, London, UK, December 14–16, 2019.

[2] Poster presentation at the *CRCNS2019 PI Meeting*, Austin, TX, September 2–4, 2019.

[3] Topic contributed presentation at the *2019 Joint Statistical Meeting* at Denver, CO, July 27–August 1, 2019.

[4] Poster presentation at the *21st Meeting of New Researchers in Statistics and Probability*, Fort Collins, CO, July 24–27, 2019.

[5] Poster presentation at the UF Statistics Winter Workshop, Gainesville FL, January 18-19, 2019.

[6] Oral presentation at the ENAR Spring Meeting, Atlanta GA, March 25-28, 2018.

[7] Oral presentation at the *2017 Joint Statistical Meeting*, Baltimore MD, July 29-August 3, 2017.

[8] Poster presentation at the *2017 Atlantic Causal Inference Conference*, Chapel Hill NC, May 23-25, 2017.

[9] Poster presentation at the *2017 Sisbayes meeting*, Rome Italy, Feb 7-8, 2017.

[10] Oral presentation at the *2016 Joint Statistical Meeting*, Chicago IL, Jul 29-Aug 3, 2016.

[11] Poster presentation at the *ISBA 2016 World Meeting*, Sardinia Italy, Jun 13-17, 2016.

[12] Oral presentation at the 2016 *ENAR Spring Meeting*, Austin TX, Mar 6-9, 2016.

[13] Poster presentation at the 2015 *International Conference of Health Policy Statistics*, Providence, Oct 7-9, 2015.

[14] Oral presentation at the 2015 *ENAR Spring Meeting*, Miami, Mar 15-18, 2015.

Professional Service

Organizer

[1] Online Causal Inference Seminar (June 2021 – present) — https://sites.google.com/view/ocis/

[2] University of Florida Winter Workshop 2022 on *Algorithm Fairness and Bias in AI*

[3] University of Florida Statistics seminar series (2021–2022)

Editorial Activity

The American Statistician, Associate Editor, Dec 2021–present

Journal Referee

Journal of the American Statistical Association
Biometrika
Annals of Applied Statistics
Biometrics
Biostatistics
Journal of the Royal Statistical Society: Series A, B & C
Epidemiology
Journal of Agricultural, Biological, and Environmental Statistics
American Journal of Epidemiology
Journal of Causal Inference
Statistics in Medicine
Statistical Methods in Medical Research
PLOS One
Journal of Clinical Epidemiology
Spatial Economic Analysis
Environment International
Communications in Statistics – Theory and Methods
Statistical Methods & Applications
Methods in Ecology and Evolution

Student competition judge

ENAR Student Paper Award Committee	2023 – *present*
ASA – Section on Bayesian Statistical Science Student Paper Competition	2019 & 2022
ISBA World Meeting – Student Poster Competition	June 2022

Grant Reviewer

Wellcome Trust
Harvard Chan – NIEHS Center for Environmental Health

Interests

Running, (European) handball, rock climbing, traveling.

[Last Updated: October 15, 2023]