

Dr. Ryan J. Giordano

CONTACT INFORMATION	1121 Colusa Ave. Berkeley, CA, 94707 USA	✉ rgiordano@berkeley.edu 🌐 rgiordan.github.io ☎ (805) 501-6754
EDUCATION	University of California Berkeley, CA USA Ph.D., Statistics. Advisors: M. I. Jordan, J. McAuliffe, T. Broderick Thesis: <i>On the Local Sensitivity of M-Estimation: Bayesian and Frequentist Applications</i>	2013–2019
	London School of Economics, London, UK MSc., Econometrics.	2006–2008
	University of Illinois Urbana-Champaign, IL, USA BA., Mathematics. BS., Theoretical and Applied Mechanics.	1997–2002
PROFESSIONAL EXPERIENCE	University of California Berkeley, CA USA Assistant professor of statistics.	2023–present
	Massachusetts Institute of Technology, Cambridge, MA USA <i>Department of EECS, Laboratory for Information & Decision Systems</i> Postdoctoral Research Fellow.	2019–2023
	Google Inc., Mountain View, CA USA Senior Engineer, Quantitative Analysis	2009–2013
	Macquarie Group, London, UK Risk Management Intern	2008
	United States Peace Corps, Kokshetau, KZ Education Volunteer, successful completion of service	2004–2006
	Hewlett-Packard, Boise, ID Lifetest Coordinator and Reliability Engineer	2002–2004
HONORS AND AWARDS	Recipient of the France–Berkeley Fellowship grant (2025) Selected for the Nov 5th 2021 Gary Chamberlain Online Seminar in Econometrics (2021) Notable Paper Award, Artificial Intelligence and Statistics (AISTATS) (2019) Travel Award, Artificial Intelligence and Statistics (AISTATS) (2019) Travel Award, Bayesian Nonparametrics Conference (2019) Student Paper Award, ASA Section on Bayesian Statistical Science (2018) Travel Award, International Society for Bayesian Analysis (ISBA) (2018) Berkeley Institute for Data Science Fellow (2017–19) Junior Travel Support Grant, International Society for Bayesian Analysis (ISBA) Bayes Comp (2016) Spotlight Paper, Neural Information Processing Systems (NeurIPS) (2015) Outstanding Graduate Student Instructor Award (2015) Travel Award, Neural Information Processing Systems Workshop on Variational Inference (2014) Hertz Foundation Graduate Fellowship Finalist (2014) Google Operating Committee Award (2010) Advanced-high speaker of Russian in Peace Corps Aptitude Test (2006) Advanced-mid speaker of Kazakh in Peace Corps Aptitude Test (2006) Selected as a Peace Corps “Success Story” for a congressional report (2005) Best Project, Undergraduate Mechanics Research Conference (2002) Best Presentation, Undergraduate Mechanics Research Conference (2002) Seely, Sinclair, Stippes, TAM Merit Scholarships (1998–2002)	

UNDER REVIEW

Giordano, R., Broderick, T., “The Bayesian Infinitesimal Jackknife for Variance”. In: *Journal of the American Statistical Association* (2025).

PUBLISHED

Giordano, R., Meager, R., Broderick, T., “An automatic finite-sample robustness metric: When can dropping a little data make a big difference? Part I: Definitions and Experiments”. In: *Philosophical Transactions of the Royal Society A* (2025). (Giordano and Meager are joint lead authors.)

– “An automatic finite-sample robustness metric: When can dropping a little data make a big difference? Part II: Theory and Intuition”. In: *Philosophical Transactions of the Royal Society A* (2025).

Kasprzak, M., **Giordano, R.**, Broderick, T., “How good is your Laplace approximation of the Bayesian posterior? Finite-sample computable error bounds for a variety of useful divergences”. In: *Journal of Machine Learning Research* 26.87 (2025), pp. 1–81.

Giordano, R., Ingram, M., Broderick, T., “Black Box Variational Inference with a Deterministic Objective: Faster, More Accurate, and Even More Black Box”. In: *Journal of Machine Learning Research* 25.18 (2024), pp. 1–39.

Berlinghieri, R., Trippe, B., Burt, D., **Giordano, R.**, Srinivasan, K., Özgökmen, T., Xia, J., Broderick, T., “Gaussian processes at the Helm(holtz): A more fluid model for ocean currents”. In: *Proceedings of the 40th International Conference on Machine Learning*. Proceedings of Machine Learning Research. PMLR, 2023.

Giordano, R., Liu, R., Jordan, M. I., Broderick, T., “Evaluating Sensitivity to the Stick-Breaking Prior in Bayesian Nonparametrics (with Discussion)”. In: *Bayesian Analysis* 18.1 (2023), pp. 287–366.

Giordano, R., Stephenson, W., Liu, R., Jordan, M. I., Broderick, T., “A Swiss Army Infinitesimal Jackknife”. In: *The 22nd International Conference on Artificial Intelligence and Statistics*. 2019, pp. 1139–1147.

Giordano, R., Broderick, T., Jordan, M. I., “Covariances, Robustness, and Variational Bayes”. In: *Journal of Machine Learning Research* 19.51 (2018), pp. 1–49. URL: <http://jmlr.org/papers/v19/17-670.html>.

Regier, J., Pamnany, K., Fischer, K., Noack, A., Lam, M., Revels, J., Howard, S., **Giordano, R.**, Schlegel, D., McAuliffe, J., “Cataloging the Visible Universe through Bayesian Inference at Petascale”. In: *2018 IEEE International Parallel and Distributed Processing Symposium (IPDPS)*. IEEE. 2018, pp. 44–53.

Giordano, R., Broderick, T., Jordan, M. I., “Linear response methods for accurate covariance estimates from mean field variational Bayes”. In: *Advances in Neural Information Processing Systems*. 2015, pp. 1441–1449.

Winther, R., **Giordano, R.**, Edge, M., Nielsen, R., “The mind, the lab, and the field: Three kinds of populations in scientific practice”. In: *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 52 (2015), pp. 12–21.

WORKSHOPS

Nguyen, T., **Giordano, R.**, Meager, R., Broderick, T., “Using gradients to check sensitivity of MCMC-based analyses to removing data”. In: *ICML 2024 Workshop on Differentiable Almost Everything: Differentiable Relaxations, Algorithms, Operators, and Simulators*. 2024.

Giordano, R., Liu, R., Varoquaux*, N., Jordan, M. I., Broderick, T., “Measuring Cluster Stability for Bayesian Nonparametrics Using the Linear Bootstrap”. In: *NeurIPS 2017 Advances in Approximate Bayesian Inference Workshop*. (2017). *Giordano, Liu, and Varoquaux are equal contribution primary authors.

Giordano, R., Broderick, T., Meager, R., Huggins, J., Jordan, M. I., “Fast robustness quantification with variational Bayes”. In: *arXiv preprint arXiv:1606.07153* (2016).

PREPRINTS

Shiffman, M., **Giordano, R.**, Broderick, T., *Could dropping a few cells change the takeaways from differential expression?* 2023. arXiv: 2312.06159 [q-bio.QM].

Giordano, R., Jordan, M. I., Broderick, T., “A higher-order swiss army infinitesimal jackknife”. In: *arXiv preprint arXiv:1907.12116* (2019).

INVITED TALKS

Stanford / Berkeley joint colloquium (Stanford)	Oct 2025
University of British Columbia Statistics Department Seminar (Vancouver)	Oct 2025
University of California Berkeley Biostatistics departmental seminar	Sep 2025
University of Texas Austin Statistics Department Seminar	Sep 2025
BSTARS Conference (Berkeley)	Sep 2025
The Institute of Statistical Mathematics (Tachikawa, Japan)	Jan 2025
University of California Irvine Statistics Department Seminar	Oct 2024
Duke University Statistics Department Seminar	Oct 2024
Stanford Statistics Department Seminar	May 2024
Theory and Foundations of Statistics in the Era of Big Data (Florida state university)	Mar 2024
Flatiron institute Bayesian Reading Group	May 2023
BayesComp 2023 (Robustness to Model Misspecification session)	Mar 2023
Stanford Statistics Department Seminar	Jul 2022
NeurIPS 2021 Bayesian Deep Learning Workshop	Dec 2021
Johns Hopkins Bayesian Learning And Spatial Temporal (BLAST) working group	Oct 2021
New England Statistical Society (NESS) annual meeting	Oct 2021
Joint Statistical Meetings (JSM)	Aug 2021
International Society for Bayesian Analysis Annual Meeting	Jun 2021
ISBA-BNP series webinar	May 2021
Harvard Graduate School of Education Miratrix CARES lab	Feb 2021
Splunk Statistics Seminar Series	Oct 2019
Google Statistics Journal Club	Sep 2019
Perlmutter Research Group	Jun 2019

CONTRIBUTED TALKS

International Society for Bayesian Analysis Annual Meeting	Jul 2024
BAYSM Bayesian Young Statisticians Meeting	Nov 2023
BAYSM Bayesian Young Statisticians Meeting	Aug 2021
BAYSM Bayesian Young Statisticians Meeting	Nov 2020
StanCon	Jul 2020
Berkeley Statistics Student Seminar Series	Apr 2019
12th International Conference on Bayesian Nonparametrics (Oxford)	Jun 2019
Berkeley Institute for Data Science Lunchtime Seminar Series	Oct 2018
Berkeley Institute for Data Science Lunchtime Seminar Series	Jul 2018
StanCon	Jan 2018
BSTARS Conference (Berkeley)	Mar 2017
BSTARS Conference (Berkeley)	Mar 2016
Berkeley–Stanford Student Joint Colloquium	Nov 2014
Joint Statistical Meetings (JSM)	Aug 2013

PROFESSIONAL SERVICE

University of California, Berkeley, Statistics Department

Faculty service

- Human and technology futures committee 2025–2026
- Graduate admissions committee 2025–2026
- Variational Bayes for Uncertainty Quantification (Bayescomp invited session chair) 2025
- Graduate admissions committee co-chair 2024–2025
- Neyman seminar organizer 2023–2024

- Gaussian processes reading group co-organizer 2023–2024
- Statistics course website modernization pilot program 2023–2024

Student leadership

- Diversity Taskforce Member 2018–2019
- Graduate Student Mentor 2017–2019
- Diversity Committee Member 2017
- Co-organizer of the Gender and Diversity Roundtable 2016–2018
- Student Seminar Committee Member 2014–2017

University of Illinois, Urbana-Champaign, Engineering Mechanics Department

- President, Student Society for Experimental Mechanics 2000–2002
- Organizer, Free University Opera for Engineering Students 2001–2002

Reviewing

- ISBA Lindley prize committee
- Journal of the American Statistical Association
- Statistical Science
- Neural Computation
- Journal of the Royal Society
- Econometrics Journal
- Bayesian Analysis
- Journal of Machine Learning Research
- Journal of the Royal Statistical Society Series B
- Advances in Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- International Conference on Artificial Intelligence and Statistics (AISTATS)
- Advances in Approximate Inference (NeurIPS-adjacent workshop)
- I Can't Believe It's Not Better (NeurIPS workshop)

TEACHING

University of California, Berkeley, CA, USA

- *Courses taught*
 - STAT154/STAT254 Modern Stat. Prediction and Machine Learning Spring & Fall 2025
 - STAT151A Linear models Spring 2024, Fall 2025
 - STAT215 Applied Statistics (teaching assistant) Fall 2014
- *Reading groups organized*
 - Philosophical foundations of statistical inference Fall 2025
 - Simulation-based inference Summer 2025
 - Variational inference Fall 2024
 - Gaussian processes Fall 2023

Prison University Project, San Quentin State Prison, CA, USA

- Volunteer math teacher Fall 2015, Spring 2016, Fall 2017

Kokshetau Elementary School #3, Kokshetau, Akhmola, Kazakhstan

- Elementary school teacher of mathematics and English as a second language 2004–2006

University of Illinois, Urbana-Champaign, IL, USA

- Teaching Assistant, Mechanics of Materials Lab Fall 1999
- Teaching Assistant, Introduction to Statics Spring 1999