

Ryan J. Giordano

CONTACT INFORMATION	1515 Grant St. Berkeley, CA, 94703 USA	✉ rgiordan@mit.edu 🌐 rgiordan.github.io ☎ (805) 501-6754	
EDUCATION	Massachusetts Institute of Technology , Cambridge, MA USA <i>Department of EECS, Computer Science & Artificial Intelligence Lab</i> Postdoctoral Research Fellow. Advisor: Tamara Broderick		2019–present
	University of California , Berkeley, CA USA Ph.D., Statistics. Advisors: Michael I. Jordan, Jon McAuliffe, Tamara Broderick		2013–2019
	London School of Economics , London, UK MSc., Econometrics.		2007–2009
	University of Illinois , Urbana-Champaign, IL, USA BA., Mathematics. BS., Theoretical and Applied Mechanics.		1997–2002 1997–2002
PROFESSIONAL EXPERIENCE	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	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)		

PREPRINTS

R. J. Giordano, M. I. Jordan, & T. Broderick (2019). A Higher-Order Swiss Army Infinitesimal Jackknife. *arXiv:1907.12116 [stat.ME]*. [pdf]

PUBLICATIONS

R. J. Giordano, W. Stephenson, R. Liu, M. I. Jordan, T. Broderick (2019). A Swiss Army Infinitesimal Jackknife. In *The 22nd International Conference on Artificial Intelligence and Statistics*. [pdf]

R. J. Giordano, T. Broderick, & M. I. Jordan (2018). Covariances, Robustness, and Variational Bayes. In *Journal of Machine Learning Research*. [pdf]

J. Regier, K. Fischer, K. Pamnany, A. Noack, J. Revels, M. Lam, S. Howard, **R. J. Giordano**, D. Schlegel, J. McAuliffe, R. Thomas (2019). Cataloging the visible universe through Bayesian inference in Julia at petascale. In *Journal of Parallel and Distributed Computing*. [pdf]

J. Regier, K. Pamnany, K. Fischer, A. Noack, M. Lam, J. Revels, S. Howard, **R. J. Giordano**, D. Schlegel, J. McAuliffe, R. Thomas, Prabhat (2018). Cataloging the Visible Universe through Bayesian Inference at Petascale. In *IEEE International Parallel and Distributed Processing Symposium (IPDPS)*. IEEE, 2018. [pdf]

R. J. Giordano, T. Broderick, & M. I. Jordan (2015). Linear Response Methods for Accurate Covariance Estimates from Mean Field Variational Bayes. In *Advances in Neural Information Processing Systems*. [pdf]

R. Winther, **R. J. Giordano**, M. D. Edge, and R. Nielsen (2015). 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*. [pdf]

WORKSHOP PAPERS

R. Liu *, **R. J. Giordano** *, M. I. Jordan, T. Broderick (2018). Evaluating Sensitivity to the Stick Breaking Prior in Bayesian Nonparametrics. In *NeurIPs 2018 Bayesian Nonparametrics Workshop*. [pdf]

R. J. Giordano *, R. Liu *, N. Varoquaux*, M. I. Jordan, T. Broderick (2017). Measuring Cluster Stability for Bayesian Nonparametrics Using the Linear Bootstrap. In *NeurIPs 2017 Advances in Approximate Bayesian Inference Workshop*. [pdf]

R. J. Giordano, T. Broderick, R. Meager, J. Huggins, M. I. Jordan (2016). Fast Robustness Quantification with Variational Bayes. In *2016 ICML Workshop on #Data4Good: Machine Learning in Social Good Applications*. [pdf]

★ = contributed equally

ACADEMIC TALKS

A Variational Bayesian Perspective on the EM Algorithm. (forthcoming) ISBA 2021

Effortless frequentist covariances of posterior expectations in Stan. BAYESM:O 2020

Effortless Frequentist Covariances of Posterior Expectations in Stan. Stancon 2020

Automatic Robustness Measures in Stan. Stancon 2018

Evaluating Sensitivity to the Stick Breaking Prior in Bayesian Nonparametrics. 2019 Oxford BNP

Bayesian Inference and Inverse Problems. BIDS Lunch Talk July 2018

Sensitivity, Uncertainty, and Automatic Differentiation.	BIDS Lunch Talk Oct 2018
A Bayesian Perspective on EM Covariances.	Bin's group 2019
Estimating Average Proportional Changes in Large, Sparse Data.	JSM 2013
Measuring Bayesian (and Variational Bayesian) Robustness	Mahoney Group, April 2017
Variational Methods for Latent Variable Problems.	Perlmutter Group, June 2019
Local Sensitivity of M-estimators: Bayesian and Frequentist Applications.	Jordan Group, May 2019
Sensitivity and Uncertainty in Variational Bayes With an Application to the EM Algorithm SGSA, April 2019	
A Higher-Order Swiss Army Infinitesimal Jackknife	Splunk October 2019
Northeastern University, Boston, MA	February 2020
SPIRAL Seminar Series	
Oxford University, Oxford, UK	October 2019
Statistics Seminar	

PROFESSIONAL
SERVICE

Student Leadership

University of California, Berkeley, Statistics Department

- | | |
|---|-----------|
| • 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 |

Univeristy of Illinois, Urbana-Champaign, Engineering Mechanics Department

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

Journal Reviewing

- Journal of Machine Learning Research

Conference Reviewing

- Advances in Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- International Conference on Artificial Intelligence and Statistics (AISTATS)

TEACHING

University of California, Berkeley, USA

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|---|-----------|
| • Teaching Assistant, STAT215 Applied Statistics (Graduate-level) | Fall 2014 |
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Kokshetau Elementary School #3, Kokshetau, Kazakhstan

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| • Elementary school teacher of mathematics and English as a second language | 2004-2006 |
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Univeristy of Illinois, Urbana-Champaign, USA

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