

Gemma E. Moran

CONTACT INFORMATION	416 S. W. Mudd Building 500 West 120th Street New York, NY, 10027, USA	+1 (267) 304-4107 gm2918@columbia.edu
EMPLOYMENT	Columbia University <i>Postdoctoral Research Scientist</i> Supervisor: Dave Blei	New York, NY, USA August 2019 - Present
EDUCATION	The Wharton School, University of Pennsylvania Ph.D. Statistics Thesis Title: “Bayesian Approaches for Modeling Variation” Thesis Advisors: Edward George and Veronika Ročková	Philadelphia, PA, USA May 2019
	The University of Sydney B.Sc. Advanced Mathematics (First Class Honours) Majors: Mathematics, Statistics Thesis Advisor: John Ormerod	Sydney, NSW, Australia November 2013
PAPERS	<ul style="list-style-type: none">♦ Moran, G. E., Ročková, V. and George, E. I. (2019) “Spike-and-Slab Lasso Biclustering.” <i>Submitted</i>♦ Bai, R., Moran, G. E., Antonelli, J., Chen, Y., Boland, M. R. (2019) “Spike-and-Slab Group Lassos for Grouped Regression and Sparse Generalized Additive Models” In revision at <i>Journal of the American Statistical Association</i> [arXiv:1903.01979]♦ Moran, G. E., Ročková, V. and George, E. I., (2018), “Variance prior forms for high-dimensional Bayesian variable selection” <i>Bayesian Analysis</i> [arXiv:1801.03019]♦ Ročková, V., Moran, G. E., and George, E. I., (2016), “Determinantal Regularization for Ensemble Variable Selection” <i>Proceedings of the 19th International Conference on Artificial Intelligence and Statistics (AISTATS)</i>, pages 1105-1113, Cadiz, Spain.	
SOFTWARE	<ul style="list-style-type: none">♦ SSLASSO (R Package) Ročková, V. and Moran, G. E. [CRAN.R-project.org/package=SSLASSO]	
AWARDS	<ul style="list-style-type: none">♦ Donald S. Murray Prize for excellence in teaching, Statistics Department, Wharton♦ Honorable Mention for Best Talk at the Bayesian Young Statisticians Meeting♦ Wharton Doctoral Program Fellowship♦ The George Allen Scholarship for Mathematical Statistics, the University of Sydney	2018 2018 2014 2013
PRESENTATIONS	<ul style="list-style-type: none">♦ “Spike-and-Slab Lasso Biclustering” Joint Statistical Meetings, Vancouver, BC, Canada. August 2018.♦ “Spike-and-Slab Lasso Biclustering” Bayesian Young Statisticians Meeting, University of Warwick, UK. July 2018.	

- ♦ “On variance estimation for Bayesian variable selection” International Society for Bayesian Analysis World Meeting, Edinburgh, Scotland. June 2018. (Poster)
- ♦ “Independence Variance Priors for Penalized Likelihood Variable Selection” Joint Statistical Meetings, Baltimore, MA. July 2017.
- ♦ “Determinantal Regularization for Ensemble Variable Selection.” 19th International Conference on Artificial Intelligence and Statistics, Cadiz, Spain. May 2016. (Poster)

TEACHING
EXPERIENCE

Teaching Assistant

The Wharton School, University of Pennsylvania

- ♦ STAT621: Accelerated Regression Analysis for Business (Fall 2018)
- ♦ STAT613: Regression Analysis for Business (Fall 2017, Fall 2018)
- ♦ STAT422: Predictive Analytics (Spring 2017)
- ♦ STAT101: Introductory Business Statistics (Fall 2016)

Recitation Instructor

The Wharton School, University of Pennsylvania

- ♦ STAT111: Introductory Statistics (Spring 2018). Rating: 3.1/4

The University of Sydney

- ♦ MATH1015: Biostatistics (Semester 1, 2013)
- ♦ MATH1005: Statistics (Semester 2, 2013)

Lecturer

Wharton Moneyball Academy (Summer 2017, 2018)

Contributed to and taught course on data analysis in R as part of summer program in statistics and sports for high school students

PROFESSIONAL
EXPERIENCE

Computational Informatics Division, CSIRO

Sydney, NSW, Australia

Summer research scholar

11/2013 - 02/2014

Research topic: Markov chain Monte Carlo and generalized linear models for RNA-seq data

Australian Mathematical Sciences Institute

Sydney, NSW, Australia

Summer research scholar

12/2012 - 02/2013

Research topic: Theory for Gaussian variational approximation of Bayesian generalized linear models