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EDUCATION

PhD, Computer Science, Carnegie Mellon University, 2007
MS, Statistical and Computational Learning, Carnegie Mellon University, 2004
MS, Statistics, Carnegie Mellon University, 2003
BS, Mathematical Statistics and Economics (double-major), Bocconi University (Italy), 1999

RESEARCH AND TEACHING EXPERIENCE

Associate Faculty, Institute for Quantitative Social Sciences, Harvard University, 2014 –
Associate Professor, Department of Statistics, Harvard University, 2013 –
Associate Faculty, The Broad Institute of MIT and Harvard, 2011 –
Faculty, FAS Center for Systems Biology, Harvard University, 2009 –
Assistant Professor, Department of Statistics, Harvard University, 2009 – 12
Postdoctoral Fellow, Lewis-Sigler Institute for Integrative Genomics and Department of Computer Science, Princeton University, 2007 – 08

RESEARCH INTERESTS

Modeling and inference of regulation and signaling dynamics
Methodology for the analysis of network data
Approximate inference strategies for data analysis at scale

DISTINGUISHED AND PLENARY LECTURES

IMS Medallion Lecture, Joint Statistical Meetings (Baltimore, MD, 2017) “*For a significant research contribution to one or more areas of research*”
Conference on Digital Experimentation, Massachusetts Institute of Technology (Cambridge, MA, 2016)
JASA Editor’s Invited Discussion Paper, Joint Statistical Meetings (Chicago, IL, 2016)
Google Market Algorithms Workshop (New York, NY, 2016)
Distinguished Lectures Series, Yale Institute for Network Science (New Haven, CT, 2016)

Cornell Day of Statistics, Cornell University (Ithaca, NY, 2015)
ASA Ninth Annual Workshop for Chairs of Programs in Statistics and Biostatistics, Joint Statistical Meetings (Seattle, WA, 2015)
IMS – MSR Workshop on Foundations of Data Science, Microsoft Research (Cambridge, MA, 2015)
Sackler Colloquium on Drawing Causal Inference from Big Data, National Academy of Sciences (Washington, DC, 2015)
Stanford-Berkeley Seminar Series on Data, Society and Inference (Berkeley, CA, 2013)
New England Machine Learning Day, Microsoft Research (Cambridge, MA, 2012)
Machine Learning Symposium, New York Academy of Sciences (New York, NY, 2008)

HONORS

Shutzer Fellow, Radcliffe Institute for Advanced Studies, 2015 – 16
Economic Graph Challenge Award, LinkedIn, 2015
Young Investigator Award, Office of Naval Research, 2014
Research Fellow, Alfred P. Sloan Foundation, 2012 – 14
CAREER Award, National Science Foundation, 2012
Finalist, Microsoft Research Faculty Fellowship, 2012
Most cited article on Journal of Machine Learning Research, 2007 – 12
Delphi Fellow, Big Think, 2011
Research Award, Google, 2011, 2014
Nominee, Levenson Memorial Teaching Prize, 2009 *“For excellence in undergraduate teaching at Harvard University”* (Nominated by the students)
Honorable Mention, Leonard J. Savage Doctoral Dissertation Award, 2007 (ASA, ISBA, NSF)
Gold Medal (to 4.00/4 and Summa Cum Laude graduates), Bocconi University, 1999

BEST PAPER AWARDS

Outstanding Statistical Application Award, American Statistical Association, 2016 (with J Bischof) *“For demonstrating an outstanding application of statistics in any substantive field”*
W. J. Youden Award in Interlaboratory Testing, American Statistical Association, 2015 (with AM Franks, G Csardi, DA Drummond) *“For outstanding contributions to the design and/or analysis of interlaboratory tests or describing ingenious approaches to the planning and evaluation of data from such tests”*
Thomas R. Ten Have Award, Atlantic Causal Inference Conference, 2013 (with P Toulis, E Kao, DB Rubin) *“For exceptionally creative or skillful research on causal inference”*

John Van Ryzin Award, International Biometrics Society (ENAR), 2006 (with DM Blei, EP Xing, SE Fienberg)

EDITORIAL BOARDS

Guest Editor, Proceedings of the National Academy of Sciences, 2015, 2016

Editor (for computational biology and machine learning), Annals of Applied Statistics, 2013 – Associate Editor, Journal of Machine Learning Research, 2013 –

Associate Editor, Statistics and Computing, 2013 –

Associate Editor, Statistical Analysis and Data Mining: The ASA Data Science Journal, 2013 – Board of Reviewing Editors, eLife, 2014 – 16

Associate Editor, Annals of Applied Statistics, 2009 – 12

EDITED BOOKS AND MONOGRAPHS

EM Airoldi. *Elements of Statistical Network Analysis*. Under contract with Cambridge University Press.

G Csardi, T Nepusz, EM Airoldi. *Statistical Network Analysis with iGraph*. Under contract with Springer. Expected completion in early 2017. (Current draft 290pp.)

2. EM Airoldi, DM Blei, EA Erosheva, SE Fienberg, editors. *Handbook of Mixed Membership Models and Their Applications*. CRC Press, 2014.
1. EM Airoldi, DM Blei, SE Fienberg, EP Xing, editors. *Statistical Network Analysis: Models, Issues, and New Directions*. Lecture Notes in Computer Science, volume 4503. Springer, 2007.

PRIMARY PUBLICATIONS (The symbol [†] denotes current/former member of my group when the research was the research was performed. Pre-prints are posted on arxiv.org or available upon request.)

Modeling and inference in molecular biology (with applications)

AM Franks[†], EM Airoldi, N Slavov[†]. Post-transcriptional regulation across human tissues. Manuscript. 2016.

R Gong[†], B Jiang, JS Liu, EM Airoldi. Power analyses provide convincing evidence for assessing comparative performance of computational methods. Manuscript. 2016.

A Blocker[†], EM Airoldi. Accurate quantification of low concentration proteins in complex samples. Manuscript. 2016.

A Franks[†], EM Airoldi, DB Rubin. Non-standard conditionally specified models for non-ignorable missing data mechanisms. Under review. 2015.

- EM Airoidi, AW Blocker[†], EJ Solis[†], DA Drummond. A model of peptide charge and modification states for estimating low concentration proteins in a single sample. Under review. Revision submitted to *Annals of Applied Statistics*. 2016.
- X Zhou, AW Blocker[†], EM Airoidi, EK O'Shea. A computational approach to map nucleosome positions and alternative chromatin states with base pair resolution. Under review. Revision submitted to *eLife*. 2016.
26. E Solis[†], J Pandey, X Zheng, D Jin, P Gupta, EM Airoidi, D Pincus, V Denic. Defining the essential function of yeast Hsf1 reveals a compact transcriptional program for maintaining eukaryotic proteostasis. *Molecular Cell*. 63, 60-71, 2016.
 25. EM Airoidi, TB Hashimoto[†], N Brandt, T Bahmani, N Athanasiadou, DJ Gresham. Steady-state and dynamic gene expression programs in *Saccharomyces cerevisiae* in response to variation in environmental nitrogen. *Molecular Biology of the Cell*. 27, 1383-1396, 2016.
 24. DJ Klionsky, et al. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy*, 12, 1–222, 2016.
 23. AM Franks[†], F Markowetz, EM Airoidi. Estimating cellular pathways from an ensemble of heterogeneous data sources. *Annals of Applied Statistics*. In press, 2015.
 22. AW Blocker[†], EM Airoidi. Template-based models for genome-wide analysis of next-generation sequencing data at base-pair resolution. *Journal of the American Statistical Association*. In press, 2016. (Microsoft best student paper award at the New England Statistics Symposium, 2012.)
 21. N Slavov[†], S Semrau, EM Airoidi, B Budnik, A Van Oudenaarden. Differential stoichiometry among core ribosomal proteins. *Cell Reports*, 13, 865 – 873, 2016.
 20. EJ Wallace[†], JL Kear-Scott, EV Pilipenko, MH Schwartz, PR Laskowski, AE Rojek, CD Katan-ski, JA Riback, MF Dion, AM Franks[†], EM Airoidi, T Pan, BA Budnik, DA Drummond. Heat stress triggers formation of reversible, specific, functional aggregates of endogenous proteins in yeast. *Cell*, 162, 1286–1298, 2015.
 19. J Rameseder, K Krismer, Y Dayma, T Ehrenberger, MK Hwang, EM Airoidi, SR Floyd, MB Yaffe. A multivariate computational method to analyze high-content RNAi screening data. *Journal of Biomolecular Screening*. 20, 985-997, 2015.
 18. AM Franks[†], G Csardi[†], DS Choi[†], EM Airoidi, DA Drummond. Accounting for experimental noise reveals that mRNA levels, amplified by post-transcriptional processes, largely determine steady-state protein levels in yeast. *PLoS Genetics*. 11, e1005206, 2015.
 17. Y Katz[†], ET Wang, J Stilterra, S Schwartz, B Wong, H Thorvaldsdóttir, JT Robinson, JP Me-sirov, EM Airoidi, CB Burge. Quantitative visualization of alternative isoform expression from RNA-seq data. *Bioinformatics*. 31, 2400–2402, 2015.
 16. AM Franks[†], G Csardi[†], DA Drummond, EM Airoidi. Estimating a structured covariance matrix from multi-lab measurements in high-throughput biology. *Journal of the American Statistical*

Association. 110, 27-44, 2015. (IBM Best student paper award at the New England Statistics Symposium, 2013.)

15. EM Airoidi, T Costa[†], F Bassetti, F Leisen, M Guindani. Generalized species sampling priors with latent beta reinforcements. *Journal of the American Statistical Association*, 109, 1466-1480, 2014.
14. Y Katz[†], F Li, N Lambert, EM Sokol, W-L Tam, AW Cheng, EM Airoidi, CJ Lengner, PB Gupta, Z Yu, R Jaenisch, CB Burge. Musashi proteins are post-transcriptional regulators of the epithelial-luminal cell state. *eLife*, 3, e03915, 2014.
13. N Slavov[†], B Budnik, D Schwab, EM Airoidi, A van Oudenaarden. Constant growth rate can be supported by decreasing energy flux and increasing aerobic glycolysis. *Cell Reports*. 7, 705-714, 2014.
12. EM Airoidi, X Wang, X Lin. Multiway blockmodels for analyzing coordinated high dimensional responses. *Annals of Applied Statistics*. 7, 2431-2457, 2013.
11. KA Geiler-Samerotte, T Hashimoto, MF Dion, BA Budnik, EM Airoidi, DA Drummond. Quantifying condition-dependent intracellular protein levels enables high-precision fitness estimates. *PLoS One*. 8, e75320, 2013.
10. EJ Wallace[†], EM Airoidi, DA Drummond. Estimating selection on synonymous codon usage. *Molecular Biology and Evolution*. 30, 1438-1453, 2013.
9. N Slavov[†], EM Airoidi, A van Oudenaarden, D Botstein. A conserved cell growth cycle can account for the environmental stress responses of divergent eukaryotes. *Molecular Biology of the Cell*. 23, 1986-1997, 2012.
8. EM Airoidi, KA Heller, R Silva. Bayesian ranking by analogy (BRA): Small sets of interacting proteins suggest functional linkage mechanisms. *Bioinformatics*. 27, i374-i382, 2011.
7. Y Katz[†], E Wang, EM Airoidi, CB Burge. Analysis and design of RNA sequencing experiments for identifying mRNA isoform regulation. *Nature Methods*. 7, 1009-1015, 2010.
6. F Markowetz, KW Mulder, EM Airoidi, IR Lemischka, OG Troyanskaya. Mapping dynamic histone acetylation patterns to gene expression in Nanog-depleted murine embryonic stem cells. *PLoS Computational Biology*. 6, e1001034, 2010.
5. R Lu, F Markowetz, RD Unwin, JT Leek, EM Airoidi, BD MacArthur, A Lachmann, R Rozov, A Ma'ayan, LA Boyer, OG Troyanskaya, AD Whetton, IR Lemischka. Systems-level dynamic analyses of fate change in murine embryonic stem cells. *Nature*. 462, 358-362, 2009.
4. Z Barutcuoglu, EM Airoidi, V Dumeaux, RE Schapire, OG Troyanskaya. Aneuploidy prediction and tumor classification with heterogeneous hidden conditional random fields. *Bioinformatics*. 25, 1307-1313, 2009.
3. EM Airoidi, C Huttenhower, DJ Gresham, C Lu, A Caudy, M Dunham, JR Broach, D Botstein, OG Troyanskaya. Predicting cellular growth with gene expression signatures. *PLoS Computational Biology*. 5, e100025, 2009.

2. MJ Brauer, C Huttenhower, EM Airoidi, R Rosenstein, JC Matese, D Gresham, VM Boer, OG Troyanskaya, D Botstein. Coordination of growth rate, cell cycle, stress response and metabolic activity in yeast. *Molecular Biology of the Cell*. 19, 352-367, 2008.
1. EM Airoidi. Getting started in probabilistic graphical models. *PLoS Computational Biology*, 3, e252, 2007.

Statistical methodology for the analysis of network data

- EM Airoidi, DB Rubin. Some fundamental ideas for causal inference on networks. Manuscript. Invited paper at *Proceedings of the National Academy of Sciences*.
- EM Airoidi. Optimizing block randomized designs for causal inference on large network. Manuscript. Invited discussion paper at *Electronic Journal of Statistics*. 2016c.
- EM Airoidi. A piece-wise constant approximation of a graphon: Theory and applications. Manuscript. 2016b. (Short version at *NIPS 2013*.)
- V Karwa[†], EM Airoidi. Estimating the average treatment effect in the presence of network interference: Modes of failure and solutions. Manuscript. 2016.
- A D'Amour[†], EM Airoidi. The effective estimand. Manuscript. 2016b.
- A D'Amour[†], EM Airoidi. Misspecification, sparsity and consistent super-population inference for dynamic networks. Manuscript. 2016a.
- EM Airoidi. Exact marginal cell distributions in ill-posed linear inverse problems using Bezier splines. Manuscript. 2016a.
- A Volfovsky[†], EM Airoidi, DB Rubin. Causal inference for ordinal outcomes. Manuscript. 2015.
- B Haas[†], EM Airoidi. Sharp extended Fréchet bounds for ill-posed linear inverse problems. Manuscript. 2014.
- DL Sussman[†], EM Airoidi. Elements of estimation theory for causal effects in the presence of network interference. Under review. 2016.
- L Forastiere[†], EM Airoidi, F Mealli. Identification and estimation of treatment and interference effects in observational studies on networks. Under review. 2016.
- S Chan[†], EM Airoidi. A consistent total-variation estimator for graphons. Under review. 2016. (Short version at *ICML 2014*.)
- S Lunagomez[†], EM Airoidi. Valid inference from non-ignorable network sampling designs. Manuscript. Revision submitted to *Journal of the Royal Statistical Society, Series B*. 2016.
- GW Basse[†], EM Airoidi. Optimal model-assisted design of experiments for network-correlated outcomes suggests new notions of network balance. Manuscript. Revision submitted to *Biometrika*. 2016.

- G Iosifidis, Y Charette, EM Airoldi, G Littera, L Tassioulas, NA Christakis. Short network cycle motifs and economic efficiency in a novel monetary system. Under review. Revision submitted to *Science*. 2016.
30. H Cavusoglu, TQ Phan[†], H Cavusoglu, EM Airoldi. Assessing the effects of granular privacy controls on content sharing and disclosure on Facebook. *Information Systems Research*. In press, 2016.
 29. A Volfovsky[†], EM Airoldi. Sharp total variation bounds for finitely exchangeable arrays. *Statistics & Probability Letters*. 114, 54-59, 2016.
 28. S Lunagomez[†], S Mukherjee, R Wolpert, EM Airoldi. Geometric representations of distributions on hypergraphs. *Journal of the American Statistical Association*. In press, 2016.
 27. CQ Han[†], K Xu, EM Airoldi. Consistent estimation of dynamic and multi-layer block models. *Journal of Machine Learning Research, W&CP (ICML)*. 37, 1511–1520, 2015.
 26. R Silva, S Kang, EM Airoldi. Predicting traffic volumes and quantifying the effects of shocks in massive transportation systems. *Proceedings of the National Academy of Sciences*. 112, 5643–5648, 2015.
 25. TQ Phan[†], EM Airoldi. A natural experiment of social network formation and dynamics. *Proceedings of the National Academy of Sciences*. 112, 6595–6600, 2015.
 24. E Azizi[†], EM Airoldi, JE Galagan. Learning modular structures from network data and node variables. *Journal of Machine Learning Research, W&CP (ICML)*. 32, 1440-1448, 2014. (Best student paper award at the New England Statistics Symposium 2014.)
 23. S Chan[†], EM Airoldi. A consistent histogram estimator for exchangeable graph models. *Journal of Machine Learning Research, W&CP (ICML)*. 32, 208-216, 2014.
 22. JJ Yang[†], CQ Han[†], EM Airoldi. Non-parametric estimation and testing of exchangeable graph models. *Journal of Machine Learning Research, W&CP (AI&Stats)*. 30, 1060-1067, 2014.
 21. EM Airoldi, T Costa[†], S Chan[†]. Stochastic blockmodel approximation of a graphon: Theory and consistent estimation. *Neural and Information Processing Systems (NIPS)*. 2013.
 20. S Chan[†], T Costa[†], EM Airoldi. Estimation of exchangeable graph models by stochastic block-model approximation. *IEEE Global Conference on Signal and Information Processing*. 2013.
 19. EM Airoldi, AW Blocker[†]. Estimating latent processes on a network from indirect measurements. *Journal of the American Statistical Association*. 108, 149-164, 2013.
 18. H Azari[†], EM Airoldi. Graphlet decomposition of a weighted network. *Journal of Machine Learning Research, W&CP (AI&Stats)*. 22, 54-63, 2012. (Microsoft Best student paper award at the New England Statistics Symposium 2012.)
 17. DS Choi[†], PJ Wolfe, EM Airoldi. Stochastic blockmodels with growing number of classes. *Biometrika*. 99, 273-284, 2012.

16. EM Airoldi, DS Choi[†], PJ Wolfe. Confidence sets for network structure. *Statistical Analysis and Data Mining*. 4, 461-469, 2011.
15. AD Shieh[†], TB Hashimoto[†], EM Airoldi. Tree preserving embedding. *Proceedings of the National Academy of Sciences*. 108, 16916-16921, 2011.
14. EM Airoldi, X Bai, KM Carley. Network sampling and classification: An investigation of network model representations. *Decision Support Systems*. 51, 506-518, 2011.
13. DS Choi[†], EM Airoldi, PJ Wolfe. Confidence sets for network structure. *Neural and Information Processing Systems (NIPS)*. 24, 2097-2105, 2011.
12. AW Blocker[†], EM Airoldi. Deconvolution of mixing time series on a graph. *Uncertainty in Artificial Intelligence (UAI)*. 27, 51-60, 2011. (IBM Best student paper award at the New England Statistics Symposium 2011.)
11. AD Shieh[†], TB Hashimoto[†], EM Airoldi. Tree preserving embedding. *International Conference on Machine Learning (ICML)*. 28, 753-760, 2011.
10. EM Airoldi, B Haas[†]. Polytope samplers for ill-posed inverse problems. *Journal of Machine Learning Research, W&CP (AI&Stats)*. 15, 110-118, 2011.
9. R Silva, KA Heller, Z Ghahramani, EM Airoldi. Ranking relations using analogies in biological and information networks. *Annals of Applied Statistics*. 4, 615-644, 2010.
8. A Goldenberg, AX Zheng, SE Fienberg, EM Airoldi. A survey of statistical network models. *Foundations and Trends in Machine Learning*. 2, 129-233, 2009.
7. EM Airoldi, DM Blei, SE Fienberg, EP Xing. Mixed-membership stochastic blockmodels. *Journal of Machine Learning Research*. 9, 1981-2014, 2008.
6. EM Airoldi, DM Blei, SE Fienberg, EP Xing. Mixed-membership stochastic blockmodels. *Neural and Information Processing Systems (NIPS)*. 2008.
5. EM Airoldi, DM Blei, SE Fienberg, EP Xing. Combining stochastic blockmodels and mixed membership for statistical network analysis. *Statistical Network Analysis (Revised Selected Papers)*, Lecture Notes in Computer Science, vol. 4503, 57-74, 2007.
4. EM Airoldi, DM Blei, SE Fienberg, EP Xing. Mixed membership stochastic blockmodels for relational data with application to protein-protein interactions. *International Biometrics Society Annual Meeting, East North American Region (ENAR)*, Atlanta GA, 2006.
3. EM Airoldi, KM Carley. Sampling algorithms for pure network topologies: Stability and separability of metric embeddings. *ACM SIGKDD Explorations*. 7, 13-22, 2005.
2. B Malin, EM Airoldi, KM Carley. A social network analysis model for name disambiguation in lists. *Journal of Computational and Mathematical Organization Theory*. 11, 119-139, 2005.
1. EM Airoldi, C Faloutsos. Network tomography: Recovering latent time series from their observed sums. *ACM International Conference on Knowledge Discovery & Data Mining (KDD)*, Seattle WA, 2004.

Approximate inference strategies

- D Tran[†], P Toulis[†], EM Airoldi. Stochastic gradient descent methods for parameter estimation at scale. Under review. Revision submitted to *Journal of Statistical Software*.
5. P Toulis[†], EM Airoldi. Asymptotic and finite-sample properties of estimators based on stochastic gradients. *Annals of Statistics*. In press, 2016. (Short version appeared at *ICML 2014*.)
 4. P Toulis[†], D Tran[†], EM Airoldi. Towards stability and optimality in stochastic gradient descent. *Journal of Machine Learning Research, W&CP (AI&Stats)*. 2016
 3. D Tran[†], DM Blei, EM Airoldi. Copula variational inference. *Neural and Information Processing Systems (NIPS)*. 2015.
 2. P Toulis[†], EM Airoldi. Scalable estimation strategies based on stochastic approximations: Classical results and new insights. *Statistics and Computing*. 25, 781–795, 2015.
 1. P Toulis[†], J Rennie, EM Airoldi. Statistical analysis of stochastic gradient methods for generalized linear models. *Journal of Machine Learning Research, W&CP (ICML)*. 32, 667-675, 2014.

OTHER REFEREED PUBLICATIONS

5. M Roberts[†], B Stewart[†], EM Airoldi. A topic model for experimentation in the social sciences. *Journal of the American Statistical Association*. In press, 2016.
4. EM Airoldi, J Bischof[†]. A regularization scheme on word occurrence rates that improves estimation and interpretation of topical content (with discussion). *Journal of the American Statistical Association*. Forthcoming, in the December 2016 issue.
3. EM Airoldi, EA Erosheva, SE Fienberg, C Joutard, TM Love, S Shringarpure. Reconceptualizing the classification of PNAS articles. *Proceedings of the National Academy of Sciences*. 107, 20899-20904, 2010. (Featured article.)
2. EM Airoldi, SE Fienberg, KK Skinner. Whose ideas? Whose words? Authorship of the Ronald Reagan radio addresses. *Political Science & Politics*, 40, 501-506, 2007. (NYT op-ed by Skinner & Rice.)
1. EM Airoldi, A Anderson, SE Fienberg, KK Skinner. Who wrote Ronald Reagan's radio addresses? *Bayesian Analysis*, 1, 289-320, 2006.

OPEN-SOURCE SOFTWARE

8. SGD, an R package. Implements stochastic approximation methods for parameter estimation.
7. iGraph 1.0.0, an R package, and Python and C libraries. Implements methods to analyze graphs.
6. ABQuant, R functions, and Python and C libraries. Implements methods for estimating absolute protein concentrations from Mass Spectrometry data. (Single processor and MPI.)

5. CPlate, R functions, and Python and C libraries. Implements methods for estimating nucleosomes insertions, deletions, and their primary and alternative positions within a population of cells from paired-end mRNA-sequencing data. (Single processor and MPI.)
4. MISO, Python and C libraries. Implements methods for estimating expression of alternatively spliced isoforms from paired-end mRNA-sequencing data. (Single processor and MPI.)
3. TPE, an R package. Implements tree preserving embedding.
2. networkTomography, an R package. Implements methods for estimating latent time series on a graph, including those published in JASA. Includes 3 data sets of point-to-point time series.
1. Tetrahedron 3D, a JAVA applet to explore the geometry of 2x2 contingency tables.

MENTORING OF STUDENTS AND POSTDOCS

Postdoctoral Fellows at Harvard (solely and jointly supervised)

Alan B Lenarcic (PhD Harvard), 2009 – 10. Research Associate, Security Exchange Commission
 David S Choi (PhD Stanford), 2010 – 12. Assistant Professor, Carnegie Mellon University
 Bertrand Haas (PhD Basel U), 2011 –13. Computational Biologist, Broad Institute
 Prakash Balachandran (PhD Duke), 2011 – 14. Associate Analyst, Morgan Stanley
 Stanley Chan (PhD USCD), 2012 – 14. Assistant Professor, Purdue University
 Valeria Espinosa (PhD Harvard), 2014. Statistician, Google
 Edward J Wallace (PhD Cambridge UK), 2010 – 13. Research Associate, University of Chicago
 Simon Lunagomez (PhD Duke), 2011 – 15. Research Associate, University College London
 Nikolai Slavov (PhD Princeton), 2011 –15. Assistant Professor, Northeastern University
 Alexander Volfovsky (PhD UW), 2013 – 16. Assistant Professor, Duke University
 Gabor Csardi (PhD Eötvös U), 2011 – 2016. Consultant, R Consortium
 Daniel Sussman (PhD Johns Hopkins), 2014 – 16. Assistant Professor, Boston University
 Vishesh Karwa (PhD Penn State) 2014 –
 Laura Forastiere (PhD Firenze) regular visits 2015 –

PhD Students at Harvard (solely and jointly supervised)

Tuan Q Phan (HBS Marketing, 2011). Assistant Professor, National University of Singapore
 Alexander W Blocker (Statistics, 2013). Data Scientist, Verily Life Sciences
 Yarden Katz, (MIT Computer Science, 2013). Postdoctoral Fellow, Harvard Medical School
 Jonathan Bischof (Statistics, 2014). Statistician, Google
 Hossein Azari-Soufiani (Computer Science, 2014). Data Scientist, Google
 Magaret E Roberts (Government, 2014). Assistant Professor, University of California, San Diego
 Brandon M Stewart (Government, 2015). Assistant Professor, Princeton University

Thiago Barros-Costa (Applied Mathematics, 2015). Moore-Sloan Data Science Postdoctoral Fellow, University of Washington, Seattle

Alexander Franks (Statistics, 2015). Moore-Sloan Data Science Postdoctoral Fellow, University of Washington, Seattle

Joseph Davies-Gavin (HBS Marketing, 2015). Data Scientist, Facebook

Eric J Solis (Systems Biology, 2016). Computational Biologist, Yumanity

Panos Toulis (Statistics, 2016). Google Fellow in Statistics, 2012 – 15. Assistant Professor, University of Chicago Booth School of Business

Alexander D’Amour (Statistics). Acting Neyman Visiting Assistant Professor, University of California, Berkeley

Ed Kao (Statistics). National Defense Science & Engineering Graduate Fellow, 2011 – 12. MIT Lincoln Lab Scholar, 2012 – 15

Qiuyi (Christina) Han (Statistics)

Guillaume Basse (Statistics). Google Fellow in Statistics, 2015 – 18

Jean Pouget-Abadie (Computer Science)

TEACHING

Harvard University

Stat 111, Introduction to Theoretical Statistics (Spring 2010, 2011, 2012, 2013)

Stat 120, Introduction to Applied Bayesian Inference and Multilevel Models (Fall 2014, 2016)

Stat 221, Statistical Computing and Learning (Fall 2009, 2010, 2013, 2014, 2016)

Stat 230, Multivariate Statistical Analysis (Spring 2009)

Stat 285, Statistical Machine Learning (Spring 2010, 2011, 2013)

Stat 303, Teaching Seminar (Spring 2012)

Stat 366, Introduction to Research (Fall 2014, 2016; Spring 2015, 2017);

Stat 385, Statistical Machine Learning Seminar (Spring 2009, 2015)

Stat 386, Experimentation at Scale (Spring 2017)

Mini-courses and Tutorials

Statistical elements of complex networks. Invited mini-course at the Social Networks Summer School, Whistler, Canada, 2010.

Statistical elements of complex networks. Invited mini-course at the New England Statistics Symposium, Cambridge, MA, 2010. (with J Blitzstein)

Statistical methods for populations with interaction and interfering units. Invited tutorial at the Institute for Mathematics and its Applications, Minneapolis, MN, 2011.

OTHER PROFESSIONAL ACTIVITIES

Industry

Academic Advisor, Google, 2016
Technical Advisor, LinkedIn, 2015 –
Long-term Visitor, Microsoft Research New England, 2015 –
Statistical Advisor, Obama for America 2012 campaign, 2012
Technical Advisor, Nanigans Inc., 2012 –
Contingent Worker, Facebook, 2010 – 12, 2014 – 15

Academic

Abel Prize Committee, Norwegian Academy of Science and Letters (external referee in 2015)
IMS Ad-Hoc j-IMS Committee, 2014 – 17 (co-chair with Ali Shojaie)
IMS Committee on Young Researchers, 2012 – 15 (chair 2013 – 14)
Program Co-chair, Workshop on Machine Learning for Health (at UAI in 2016)
Program Co-chair, Workshop on Computational Biology (at ICML in 2016)
Program Co-chair, Workshop on Online advertising systems (at ICML in 2016)
Program Chair, New England Statistics Symposium, 2010
Program Co-chair, Workshop on Statistical Network Analysis (at ICML in 2006; at NIPS in 2008, 2009, 2010, 2012, 2013, 2014)
Area Chair, Neural Information Processing Systems (2014, Montreal, Canada)
Area Chair, International Conference on Machine Learning (2013, Atlanta, GA; 2014, Beijing, China; 2015, Paris, France)
Area Chair, International Conference on Artificial Intelligence and Statistics (2011, Ft. Lauderdale, FL; 2012, La Palma, Canary Islands; 2013, Scottsdale, AZ; 2014, Reykjavik, Island; 2015, San Diego, CA)
Senior Program Committee, World Wide Web (2017, Perth, Australia)
Co-organizer, Exploratory Seminar at the Radcliffe Institute for Advanced Studies of Harvard University. (Analyzing Graphs in 2009; Biology & Statistics in 2010)

Harvard University

Director of Graduate Studies, Statistics (FAS), 2014 – 15
Co-Director of Graduate Studies, Statistics (FAS), 2013 – 14
Advisory Board for the Program in Applied Computational Science in the School of Engineering and Applied Sciences, 2013 –
Advisory Board on curriculum development for the Program in Applied Computational Science in the School of Engineering and Applied Sciences, 2010 – 13