

David B. Dunson

CONTACT INFORMATION	Department of Statistical Science Duke University Box 90251 Durham, NC 27708-0251 USA	Voice: (919) 260-6615 Fax: (919) 684-8594 E-mail: dunson@duke.edu www.stat.duke.edu/~dunson/
CITIZENSHIP	USA (born in Townsville, Australia)	
RESEARCH INTERESTS	Bayes, big data, data science, epidemiology, genomics, latent structure, machine learning, neuroscience, networks, nonparametrics.	
EDUCATION	Emory University , Atlanta, Georgia USA Ph.D., Biostatistics, May 1997 <ul style="list-style-type: none">• Thesis Topic: Statistical Methods for Data with Informative Cluster Size• Advisor: Professor Elizabeth Halloran• School wide top dissertation award in the sciences• Student paper award, ASA Biopharmaceutical Section• Distinguished student paper award, International Biometrics Society (ENAR) Pennsylvania State University , University Park, Pennsylvania USA B.S., Mathematics, May 1994 <ul style="list-style-type: none">• University Scholar's Program• Academic Full Scholarship• NSF Fellowship in Plate Tectonics Modeling	
HONORS & AWARDS	<ul style="list-style-type: none">• Fellow of the International Society of Bayesian Analysis (ISBA), Nov 2015• Editor, <i>Journal of the Royal Statistical Society Series B</i>, January 2016-• Finalist, Inaugural best paper prize, <i>Information & Inference</i>, May 2015• Winner, LinkedIn Economic Graph Challenge, May 2015• Keynote Speaker, Minghui Yu Memorial Conference, Columbia University, April 2015• Inaugural Speaker, Center for Statistics & Machine Learning, Princeton University, Oct 2014• Keynote Speaker, Joint meeting of ISBIS and SLDM, June 2014• Winner of SBP 2014 Grand Data Challenge, 2014• Hartley Memorial Lecturer, Texas A&M University, October 2014• Emory University Kutner Distinguished Alumni Award (inaugural winner), 2014• Arts & Sciences Distinguished Professor of Statistical Science, Duke University, 2013• Notable Paper Award, International Conference on Artificial Intelligence & Statistics, 2013	

- W.J. Youden Award in Interlaboratory Testing, American Statistical Association, 2012
- Top 5% Undergraduate Teaching Course Evaluations, Duke University, 2011
- Distinguished Application Paper Award, 28th International Conference on Machine Learning (ICML), 2011
- Keynote Speaker, Bayes250 Workshop, Schools of Mathematics & Informatics, The University of Edinburgh, 2011
- Outstanding Alumni Award, Eberly College of Science, Pennsylvania State University, 2011
- **President's Award, Committee of the Presidents of Statistical Societies (COPSS), 2010**
- Myrto Lefkopoulou Distinguished Lecturer, Harvard University, 2010
- Fellow, Institute of Mathematical Statistics, 2010
- L.H. Baker Plenary Speaker, 75th Anniversary Iowa State Statistics Department, 2009
- Visiting Professor, Bocconi University, Milan, Italy, 2008
- Mortimer Spiegelman Award (Top Public Health Statistician Under Age 40), 2007
- Fellow, American Statistical Association, 2007
- Gold Medal for Exceptional Service, US Environmental Protection Agency, 2007
- Best Paper Award, American Academy of Fertility Care Professionals, 2003
- David Byar Young Investigator Award, American Statistical Association, 2000

PROFESSIONAL
EXPERIENCE

Department of Statistical Science, Duke University, Durham, North Carolina

- *Arts & Sciences Distinguished Professor* **May 2013 to present**
- *Professor* **August 2008 to present**
- *Adjunct Professor* **2006 to 2008**
- *Adjunct Associate Professor* **2000 to 2006**

Department of Mathematics, Duke University

- *Professor* **October 2014 to present**

Department of Electrical and Computer Engineering, Duke University

- *Professor* **September 2012 to present**

Department of Biostatistics, University of North Carolina at Chapel Hill

- *Adjunct Professor* **2007 to 2013**
- *Adjunct Associate Professor* **2001 to 2007**

Biostatistics Branch, National Institute of Environmental Health Sciences

- *Senior Investigator (with Tenure)* **2002 to 2008**
- *Tenure Track Investigator* **2000 to 2002**
- *Research Fellow* **1997 to 2000**

PUBLICATIONS

Citations (from Google Scholar)

- Total number of citations = 26,036
- h-index = 54
- h-index since 2010 = 43
- i10-index = 172 (# publications with at least 10 citations)

Journal of the American Statistical Association

- **Dunson, D. B.** and Zhou, H. (2000). A Bayesian model for fecundability and sterility. *Journal of the American Statistical Association* **95**, 1054-1062.
- **Dunson, D. B.** (2003). Dynamic latent trait models for multidimensional longitudinal data. *Journal of the American Statistical Association* **98**, 555-563.
- **Dunson, D. B.** and Colombo, B. (2003). Bayesian modeling of markers of day-specific fertility. *Journal of the American Statistical Association* **98**, 28-37.
- **Dunson, D.B.** (2005). Bayesian semiparametric isotonic regression for count data. *Journal of the American Statistical Association* **100**, 618-627.
- Cai, B. and **Dunson, D.B.** (2007). Bayesian multivariate isotonic regression splines: Applications to carcinogenicity studies. *Journal of the American Statistical Association* **102**, 1158-1171.
- **Dunson, D.B.**, Herring, A.H. and Engel, S.M. (2008). Bayesian selection and clustering of polymorphisms in functionally-related genes. *Journal of the American Statistical Association* **103**, 534-546.
- **Dunson, D.B.**, Herring, A.H. and Siegariz, A.M. (2008). Bayesian inference on changes in response densities over response clusters. *Journal of the American Statistical Association* **103**, 1508-1517.
- **Dunson, D.B.**, Xue, Y. and Carin, L. (2008). The matrix stick breaking process: Flexible Bayes meta analysis. *Journal of the American Statistical Association* **103**, 317-327.
- Rodriguez, A., **Dunson, D.B.** and Gelfand, A.E. (2008). The nested Dirichlet process (with discussion). *Journal of the American Statistical Association* **103**, 1131-1144.
- Bigelow, J. and **Dunson, D.B.** (2009). Bayesian semiparametric joint models for functional predictors. *Journal of the American Statistical Association* **104**, 26-36.
- **Dunson, D.B.** and Xing, C. (2009). Bayesian nonparametric modeling of multivariate unordered categorical data. *Journal of the American Statistical Association* **104**, 1042-1051.

- Chung, Y. and **Dunson, D.B.** (2009). Nonparametric Bayes conditional distribution modeling with variable selection. *Journal of the American Statistical Association*, **104**, 1646-1660.
- Rodriguez, A., **Dunson, D.B.**, and Gelfand, A.E. (2010). Latent stick-breaking processes. *Journal of the American Statistical Association* **105**, 647-659.
- Ren, L., **Dunson, D.B.**, Lindroth, S. and Carin, L. (2010). Dynamic nonparametric Bayesian models for analysis of music. *Journal of the American Statistical Association*, **105**, 458-472.
- Reich, B., Fuentes, M. and **Dunson, D.B.** (2011). Bayesian spatial quantile regression. *Journal of the American Statistical Association*, **106**, 6-20.
- Yang, H., **Dunson, D.B.** and O'Brien, S. (2011). Nonparametric Bayes stochastically ordered latent class models. *Journal of the American Statistical Association*, **106**, 807-817.
- Canale, A. and **Dunson, D.B.** (2012). Bayesian kernel mixtures for counts. *Journal of the American Statistical Association*, **106**, 1528-1539.
- Chen, M., Zaas, A., Wood, C., Ginsberg, G.S., Lucas, J., **Dunson, D.B.** and Carin, L. (2012). Predicting viral infection from high-dimensional biomarker trajectories. *Journal of the American Statistical Association*, **106**, 1259-1279.
- Bhattacharya, A. and **Dunson, D.B.** (2012). Simplex factor models for multivariate unordered categorical data. *Journal of the American Statistical Association*, **107**, 362-377.
- Bhattacharya, A, Page, G. and **Dunson, D.B.** (2013). Classification via Bayesian nonparametric learning of affine subspaces. *Journal of the American Statistical Association*, **108**, 187-201.
- Kuniyama, T. and **Dunson, D.B.** (2013). Bayesian modeling of temporal dependence in large sparse contingency tables. *Journal of the American Statistical Association*, **108**, 1324-1338.
- Murray, J., **Dunson, D.B.**, Lucas, J. and Carin, L. (2013). Bayesian Gaussian copula factor models for mixed data. *Journal of the American Statistical Association*, **108**, 656-665.
- Zhu, B. and **Dunson, D.B.** (2013). Locally adaptive Bayes nonparametric regression via nested Gaussian processes. *Journal of the American Statistical Association*, **108**, 1445-1456.
- Gu, K., Pati, D. and **Dunson, D.B.** (2014). Bayesian multiscale modeling of closed curves in point clouds. *Journal of the American Statistical Association*, **109**, 1481-1494.
- Kundu, S. and **Dunson, D.B.** (2014). Bayes variable selection in semiparametric linear models. *Journal of the American Statistical Association*, **109**, 437-447.
- Scarpa, B. and **Dunson, D.B.** (2014). Enriched stick breaking processes for functional data. *Journal of the American Statistical Association*, **109**, 647-660.
- Wheeler, M., **Dunson, D.B.**, Herring, A.H., Pandalai, S.P. and Baker, B.A. (2014). Mechanistic hierarchical Gaussian processes. *Journal of the American Statistical Association*, **109**, 894-904.

- Bhattacharya, A., Pati, D., Pillai, N. and **Dunson, D.** (2015). Dirichlet-Laplace priors for optimal shrinkage. *Journal of the American Statistical Association*, online.
- Guhaniyogi, R. and **Dunson, D.B.** (2015). Bayesian compressed regression. *Journal of the American Statistical Association*, online.
- Yang, Y. and **Dunson, D.B.** (2015). Bayesian conditional tensor factorizations for high-dimensional classification. *Journal of the American Statistical Association*, online.
- Zhou, J., Bhattacharya, A., Herring, A.H. and **Dunson, D.** (2015). Bayesian factorizations of big sparse tensors. *Journal of the American Statistical Association*, online.
- Durante, D., **Dunson, D.B.** and Vogelstein, J. (2015). Nonparametric Bayes modeling of populations of networks. *Journal of the American Statistical Association*, revision submitted.
- Guhaniyogi, R., Qamar, S. and **Dunson, D.B.** (2015). Bayesian tensor regression. *Journal of the American Statistical Association*, revision requested.
- Lin, L., St Thomas, B., Zhu, H. and **Dunson, D.B.** (2015). Extrinsic local regression on manifold-valued data. *Journal of the American Statistical Association*, submitted.
- Sarkar, A. and **Dunson, D.B.** (2015). Bayesian nonparametric modeling of higher order Markov chains. *Journal of the American Statistical Association*, accepted.

Biometrika

- Peddada, S. D., **Dunson, D.B.** and Tan, X. (2005). Estimation of order restricted means from correlated data. *Biometrika* **92**, 703-715.
- **Dunson, D.B.** and Park, J-H. (2008). Kernel stick breaking processes. *Biometrika* **95**, 307-323.
- **Dunson, D.B.** and Peddada, S.D. (2008). Bayesian nonparametric inference on stochastic ordering. *Biometrika* **95**, 859-874.
- **Dunson, D.B.** (2009). Nonparametric Bayes local partition models for random effects. *Biometrika* **96**, 249-262.
- Rodriguez, A., **Dunson, D.B.** and Gelfand, A.E. (2009). Nonparametric functional data analysis through Bayesian density estimation. *Biometrika* **96**, 149-162.
- Bhattacharya, A. and **Dunson, D.B.** (2010). Nonparametric Bayesian density estimation on manifolds with applications to planar shapes. *Biometrika*, **97**, 851-865.
- Pati, D., Reich, B. and **Dunson, D.B.** (2011). Bayesian geostatistical modeling with informative sampling locations. *Biometrika* **98**, 35-48.
- Bhattacharya, A. and **Dunson, D.B.** (2011). Sparse Bayesian infinite factor models. *Biometrika* **98**, 291-306.
- Wang, L., and **Dunson, D.B.** (2011). Bayesian isotonic density regression. *Biometrika* **98**, 537-551.
- Banerjee, A., **Dunson, D.B.** and Tokdar, S. (2013). Efficient Gaussian process regression for large data sets. *Biometrika* **100**, 75-89.

- Armagan, A., **Dunson, D.B.**, Lee, J. and Bajwa, W. (2013). Posterior consistency in linear models under shrinkage priors. *Biometrika*, 100, 1011-1018.
- Canale, A. and **Dunson, D.B.** (2013). Nonparametric Bayes modeling of count processes. *Biometrika*, 100, 801-816.
- Durante, D. and **Dunson, D.B.** (2014). Nonparametric Bayes dynamic modeling of relational data. *Biometrika*, 101, 883-898.
- Lin, L. and **Dunson, D.B.** (2014). Bayesian monotone regression using Gaussian process projection. *Biometrika*, 101, 303-317.
- Kundu, S. and **Dunson, D.B.** (2014). Latent factor models for density estimation. *Biometrika*, 101, 641-654.
- Lock, E. and **Dunson, D.B.** (2015). Shared kernel Bayesian screening. *Biometrika*, online.
- Datta, J. and **Dunson, D.B.** (2015). Priors for high-dimensional sparse Poisson means. *Biometrika*, under revision.
- Kuniyama, T. and **Dunson, D.B.** (2015). Nonparametric Bayes inference on conditional independence. *Biometrika*, accepted.
- Rao, V., Lin, L. and **Dunson, D.B.** (2015). Data augmentation for models based on rejection sampling. *Biometrika*, revision submitted.
- Srivastava, S., Engelhardt, B.E. and **Dunson, D.B.** (2015). Expandable factor analysis. *Biometrika*, revision invited.
- Wheeler, M.W., **Dunson, D.B.** and Herring, A.H. (2015). Bayesian local extrema splines. *Biometrika*, revision invited.
- Nishimura, A. and **Dunson, D.B.** (2015). Recycling intermediate steps to improve Hamiltonian Monte Carlo. *Biometrika*, submitted.

Journal of the Royal Statistical Society Series B

- **Dunson, D. B.** (2000). Bayesian latent variable models for clustered mixed outcomes. *Journal of the Royal Statistical Society B* **62**, 355-366.
- **Dunson, D.B.**, Pillai, N.S. and Park, J-H. (2007). Bayesian density regression. *Journal of the Royal Statistical Society B* **69**, 163-183.
- Kessler, D.C., Hoff, P.D. and **Dunson, D.B.** (2014). Marginally specified priors for nonparametric Bayes estimation. *Journal of the Royal Statistical Society B*, 77, 35-58.
- Miller, J. and **Dunson, D.B.** (2015). Robust Bayesian inference via coarsening. *Journal of the Royal Statistical Society B*, submitted.
- Rao, V., Adams, R. and **Dunson, D.B.** (2015). Bayesian inference for repulsive point processes. *Journal of the Royal Statistical Society B*, revision submitted.
- Johndrow, J., Mattingly, J., Mukherjee, S. and **Dunson, D.B.** (2015). Approximate Markov chains and high-dimensional Bayesian inference. *Journal of the Royal Statistical Society B*, to be submitted.

Annals of Statistics

- Bhattacharya, A, Pati, D. and **Dunson, D.B.** (2014). Anisotropic function estimation using multi-bandwidth Gaussian processes. *Annals of Statistics*, 42, 352-381.
- Pati, D., Bhattacharya, A., Pillai, N. and **Dunson, D.B.** (2014). Posterior contraction in sparse Bayesian factor models for massive covariance matrices. *Annals of Statistics*, 42, 1102-1130.
- Johndrow, J., Bhattacharya, A. and **Dunson, D.B.** (2015). Tensor decompositions and sparse log-linear models. *Annals of Statistics*, accepted.
- Yang, Y. and **Dunson, D.B.** (2015). Bayesian manifold regression. *Annals of Statistics*, accepted.
- Minsker, S., Srivastava, S., Lin, L. and **Dunson, D.B.** (2015). Robust and scalable Bayes via a median of subset posterior measures. *Annals of Statistics*, under revision.
- Li, C., Lin, L. and **Dunson, D.B.** (2015). On posterior consistency of tail index for Bayesian kernel mixture models. *Annals of Statistics*, submitted.

Biometrics

- **Dunson, D. B.** (1998). Dose-dependent number of implants and implications in developmental toxicity. *Biometrics* **54**, 558-569.
- **Dunson, D. B.** and Haseman, J. K. (1999). Modeling tumor onset and multiplicity using transition models with latent variables. *Biometrics* **55**, 965-970.
- **Dunson, D. B.**, Weinberg, C. R., Perreault, S. D., and Chapin, R.E. (1999). Summarizing the motion of self-propelled cells: applications to sperm motility. *Biometrics* **55**, 537-543.
- **Dunson, D. B.** and Dinse, G. E. (2000). Distinguishing effects on tumor multiplicity and growth rate in chemoprevention experiments. *Biometrics* **56**, 1068-1075.
- **Dunson, D. B.** and Weinberg, C. R. (2000). Modeling human fertility in the presence of measurement error. *Biometrics* **56**, 288-292.
- **Dunson, D. B.** (2001). Bayesian modeling of the level and duration of fertility in the menstrual cycle. *Biometrics* **57**, 1067-1073.
- **Dunson, D. B.** and Baird, D. D. (2001). A flexible parametric model for combining current status and age at first diagnosis data. *Biometrics* **57**, 396-403.
- **Dunson, D. B.** and Perreault, S. D. (2001). Factor analytic models of clustered multivariate data with informative censoring. *Biometrics* **57**, 302-308.
- **Dunson, D. B.** and Baird, D. D. (2002). A proportional hazards model for incidence and induced remission of disease. *Biometrics* **58**, 71-78.
- **Dunson, D. B.** and Baird, D. D. (2002). Bayesian modeling of incidence and progression of disease from cross-sectional data. *Biometrics* **58**, 813-822.
- **Dunson, D. B.** and Dinse, G. E. (2002). Bayesian models for multivariate current status data with informative censoring. *Biometrics* **58**, 79-88.
- Chen, Z. and **Dunson, D. B.** (2003). Random effects selection in linear mixed models. *Biometrics* **59**, 762-769.

- **Dunson, D.B.**, Chen, Z. and Harry, J. (2003). Bayesian joint models of cluster size and subunit-specific outcomes. *Biometrics* **59**, 521-530.
- **Dunson, D. B.**, Chulada, P., and Arbes, S. (2003). Bayesian modeling of time varying and waning exposure effects. *Biometrics* **59**, 83-91.
- **Dunson, D.B.** and Herring, A.H. (2003). Bayesian inferences in the Cox model for order restricted alternatives. *Biometrics* **59**, 918-925.
- **Dunson, D.B.** and Neelon, B. (2003). Bayesian inferences on order-constrained parameters in generalized linear models. *Biometrics* **59**, 286-295.
- **Dunson, D. B.**, Watson, M. and Taylor, J.A. (2003). Bayesian latent variable models for median regression on multiple outcomes. *Biometrics* **59**, 296-304.
- **Dunson, D.B.** and Chen, Z. (2004). Selecting factors predictive of heterogeneity in multivariate event time data. *Biometrics* **60**, 352-358.
- **Dunson, D.B.**, Holloman, C., Calder, C. and Gunn, L. (2004). Bayesian modeling of multiple lesion onset and growth from interval censored data. *Biometrics* **60**, 676-683.
- Herring, A.H., and **Dunson, D.B.** (2004). Modeling the effects of a bi-directional latent predictor from multivariate questionnaire data. *Biometrics* **60**, 926-935.
- Neelon, B. and **Dunson, D.B.** (2004). Bayesian isotonic regression and trend analysis. *Biometrics* **60**, 398-406.
- O'Brien, S.M. and **Dunson, D.B.** (2004). Bayesian multivariate logistic regression. *Biometrics* **60**, 739-746.
- **Dunson, D.B.** and Stanford, J.B. (2005). Bayesian inferences on predictors of conception probabilities. *Biometrics* **61**, 126-133.
- Hans, C. and **Dunson, D.B.** (2005). Bayesian inferences on umbrella orderings. *Biometrics* **61**, 1018-1026.
- Cai, B. and **Dunson, D.B.** (2006a). Bayesian covariance selection in generalized linear mixed models. *Biometrics* **62**, 446-457.
- Pennell, M.L. and **Dunson, D.B.** (2006). Bayesian semiparametric dynamic frailty models for multiple event time data. *Biometrics* **62**, 1044-1052.
- Bigelow, J. and **Dunson, D.B.** (2007). Bayesian adaptive regression splines for hierarchical data. *Biometrics* **63**, 724-732.
- Kinney, S. and **Dunson, D.B.** (2007). Fixed and random effects selection in linear and logistic models. *Biometrics* **63**, 690-698.
- Pennell, M.L. and **Dunson, D.B.** (2008). Nonparametric Bayes testing of changes in a response distribution with an ordinal predictor. *Biometrics* **64**, 413-423.
- Scarpa, B., and **Dunson, D.B.** (2009). Bayesian hierarchical functional data analysis via contaminated informative priors. *Biometrics* **65**, 772-780.
- Cai, B., **Dunson, D.B.** and Stanford, J.B. (2010). Dynamic model for multivariate markers of fecundability. *Biometrics*, **66**, 905-913.
- MacLehose, R.F. and **Dunson, D.B.** (2010). Bayesian semi-parametric multiple shrinkage. *Biometrics*, **66**, 455-462.

- Wang, L. and **Dunson, D.B.** (2010). Semiparametric Bayes multiple testing: Applications to tumor data. *Biometrics*, 66, 493-501.
- Liu, F., **Dunson, D.B.** and Zou, F. (2011). High-dimensional variable selection in meta analysis for censored data. *Biometrics*, **67**, 504-512.
- Wang, L. and **Dunson, D.B.** (2011). Semiparametric Bayes proportional odds models for current status data with under-reporting. *Biometrics*, **67**, 1111-1118.
- Montagna, S., Tokdar, S., Neelon, B. and **Dunson, D.B.** (2012). Bayesian latent factor regression for functional and longitudinal data. *Biometrics*, **68**, 1064-1073.
- Zhou, J., Herring, A.H., Bhattacharya, A. and **Dunson, D.B.** (2015). Nonparametric Bayes modeling for case control studies with many predictors. *Biometrics*, accepted.

Other Statistics Journals

- **Dunson, D. B.** (2000). Assessing overall risk in reproductive experiments. *Risk Analysis* **20**, 427-435.
- **Dunson, D. B.** (2000). Models for papilloma multiplicity and regression: applications to transgenic mouse studies. *Applied Statistics* **49**, 19-30.
- **Dunson, D. B.** and Weinberg, C. R. (2000). Accounting for unreported and missing intercourse in human fertility studies. *Statistics in Medicine* **19**, 665-679.
- **Dunson, D. B.** (2001). Modeling of changes in tumor burden. *Journal of Agricultural, Biological, and Environmental Statistics* **6**, 38-48.
- **Dunson, D. B.** and Dinse, G. (2001). Bayesian incidence analysis of animal tumorigenicity data. *Applied Statistics* **50**, 125-141.
- **Dunson, D. B.**, Weinberg, C.R., Baird, D. D., Kesner, J.S., and Wilcox, A. J. (2001). Assessing human fertility using several markers of ovulation. *Statistics in Medicine* **20**, 965-978.
- **Dunson, D. B.**, Weinberg, C. R., and Wilcox, A. J. (2001). Modeling multiple ovulation, fertilization, and embryo survival in human fertility studies. *Biostatistics* **2**, 131-145.
- **Dunson, D. B.** (2003). Incorporating heterogeneous intercourse records into time to pregnancy models. *Mathematical Population Studies* **10**, 127-143.
- Chen, Z. and **Dunson, D.B.** (2004). Bayesian estimation of survival functions under stochastic precedence. *Lifetime Data Analysis* **10**, 159-173.
- **Dunson, D.B.** and Herring, A.H. (2005). Bayesian latent variable models for mixed discrete outcomes. *Biostatistics* **6**, 11-25.
- **Dunson, D.B.** and Herring, A.H. (2005). Bayesian model selection and averaging in additive and proportional hazards. *Lifetime Data Analysis* **11**, 213-232.
- **Dunson, D. B.** and Taylor, J.A. (2005). Approximate Bayesian inference for quantiles. *Journal of Nonparametric Statistics* **17**, 385-400.
- Gunn, L.H. and **Dunson, D.B.** (2005). A transformation approach for incorporating umbrella shape restrictions. *Biostatistics* **6**, 434-449.
- **Dunson, D.B.** (2006). Bayesian dynamic modeling of latent trait distributions. *Biostatistics* **7**, 551-568.

- O'Brien, S.M., Kupper, L.L., and **Dunson, D.B.** (2006). Performance of tests of association in misspecified generalized linear models. *Journal of Statistical Planning and Inference* **136**, 3090-3100.
- **Dunson, D.B.** (2007). Bayesian methods for latent trait modeling of longitudinal data. *Statistical Methods in Medical Research* **16**, 399-415.
- **Dunson, D.B.** (2007). Empirical Bayes density regression. *Statistica Sinica* **17**, 481-504.
- Pennell, M.L. and **Dunson, D.B.** (2007). Fitting semiparametric random effects models to large data sets. *Biostatistics* **8**, 821-834.
- Scarpa, B. and **Dunson, D.B.** (2007). Bayesian methods for searching for optimal rules for timing intercourse to achieve pregnancy. *Statistics in Medicine* **26**, 1920-1936 (paper celebrating 25th anniversary).
- **Dunson, D.B.** (2009). Bayesian nonparametric hierarchical modeling. *Biometrical Journal* **51**, 273-284.
- Ghosh, J., and **Dunson, D.B.** (2009). Default priors and efficient posterior computation in Bayesian factor analysis. *Journal of Computational and Graphical Statistics* **18**, 306-320.
- MacLehose, R.F. and **Dunson, D.B.** (2009). Nonparametric Bayes kernel-based priors for functional data analysis. *Statistica Sinica* **19**, 611-629.
- Rodriguez, A., **Dunson, D.B.**, and Taylor, J. (2009). Bayesian hierarchically weighted finite mixture models for samples of distributions. *Biostatistics* **10**, 155-171.
- Bornkamp, B., Ickstadt, K. and **Dunson, D.B.** (2010). Stochastically ordered multiple regression. *Biostatistics*, **11**, 419-431.
- Chen, B., Chen, M., Paisley, J., Zaas, A., Woods, C., Ginsberg, G.S., Hero, A., Lucas, J., **Dunson, D.**, and Carin, L. (2010). Bayesian inference on the number of factors in gene-expression analysis: Application to human virus challenge studies. *BMC Bioinformatics*, **11**, 552.
- **Dunson, D.B.** (2010). Multivariate kernel partition process mixtures. *Statistica Sinica*, **20**, 1395-1422.
- Mitra, R. and **Dunson, D.B.** (2010). Two level stochastic search variable selection in GLMs with missing predictors. *International Journal of Biostatistics*, **6**, 33.
- Park, J.-H., and **Dunson, D.B.** (2010). Bayesian generalized product partition model. *Statistica Sinica*, **20**, 1203-1226.
- Yang, M. and **Dunson, D.B.** (2010). Semiparametric Bayes hierarchical models with mean and variance constraints. *Computational Statistics and Data Analysis*, **54**, 2172-2186.
- Yang, M., and **Dunson, D.B.** (2010). Bayesian semiparametric structural equation models with latent variables. *Psychometrika*, **75**, 675-693.
- Zhang, L. and **Dunson, D.B.** (2010). Variational Bayesian logistic regression model selection: An improvement over Laplace? *Journal of Statistical Research* (volume in honor of Bradley Efron), **44**, 187-205.

- Armagan, A. and **Dunson, D.B.** (2011). Sparse variational analysis of large longitudinal data sets. *Statistics & Probability Letters*, 81, 1056-1062.
- Chung, Y. and **Dunson, D.B.** (2011). The local Dirichlet process. *Annals of the Institute for Statistical Mathematics*, 63, 59-80.
- Crandell, J. and **Dunson, D.B.** (2011). Posterior simulation across nonparametric models for functional clustering. *Sankhya B*, 73, 42-61.
- Page, G. and **Dunson, D.B.** (2011). Bayesian local contamination models for multivariate outliers. *Technometrics*, 53, 152-162.
- Rodriguez, A. and **Dunson, D.B.** (2011). Nonparametric Bayesian models through probit stick-breaking processes. *Bayesian Analysis*, 6, 145-178.
- Shi, M. and **Dunson, D.B.** (2011). Bayesian variable selection via particle stochastic search. *Statistics & Probability Letters*, 81, 283-291.
- Wang, L., and **Dunson, D.B.** (2011). Fast Bayesian inference in Dirichlet process mixture models. *Journal of Computational and Graphical Statistics*, 20, 196-216.
- Bhattacharya, A. and **Dunson, D.B.** (2012). Nonparametric Bayes classification and hypothesis testing on manifolds. *Journal of Multivariate Analysis*, 111, 1-19.
- Bhattacharya, A. and **Dunson, D.B.** (2012). Strong consistency of nonparametric Bayes density estimation on compact metric spaces. *Annals of the Institute for Statistical Mathematics*, 64, 687-714.
- Ding, M., He, L., Ding, M. and **Dunson, D.** and Carin, L. (2012). Nonparametric Bayesian segmentation of multivariate inhomogeneous space-time Poisson processes. *Bayesian Analysis*, 7, 813-840.
- Armagan, A, **Dunson, D.B.** and Lee, J. (2013). Generalized double Pareto shrinkage. *Statistica Sinica*, 23, 119-143.
- Carin, L., Wang, E., Salazar, E. and **Dunson, D.** (2013). Spatio-temporal modeling of legislation and votes. *Bayesian Analysis*, 8, 233-268.
- Lock, E. and **Dunson, D.B.** (2013). Bayesian consensus clustering. *Bioinformatics*, 29, 2610-2616.
- Pati, D., **Dunson, D.B.** and Tokdar, S. (2013). Posterior consistency in conditional distribution estimation. *Journal of Multivariate Analysis*, 116, 456-472.
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- Carlson, D.E. et al., **Dunson, D.B.** and Carin, L. (2014). Multichannel electrophysiological spike sorting via joint dictionary learning and mixture modeling. *IEEE Transactions on Biomedical Engineering*, 61, 41-54.
- Kessler, D.C., Taylor, J.A. and **Dunson, D.B.** (2014). Learning phenotype densities conditional on many interacting predictors. *Bioinformatics*, 30, 1562-8.
- Zhang, J. et al + **Dunson, D.B.** and Dave, S.S. (2014). The genomic landscape of mantle cell lymphoma is related to the epigenetically determined chromatin state of normal B cells. *Blood*, 123, 2988-2996.
- Li D, **Dunson, D.B.** and Wilcox, A. (2015). Benchmark pregnancy rates and the assessment of post-coital contraceptives: An update. *Contraception*, 91, 344-9.
- Chabout, J., Sarkar, A., **Dunson, D.B.** and Jarvis, E.D. (2015). Male mice song syntax depends on social contexts and influences female preferences. *Frontiers in Neuroscience*, 9, 76.
- Li, D., Heyer, L., Jennings, V.H., Smith, C.A. and **Dunson, D.B.** (2015). Personalized estimation of a woman's most fertile days. *Contraception*, submitted.
- McKinney, M. et al., **Dunson, D.B.** and Dave, S.S. (2015). The genetic landscape of hepatosplenic T cell lymphoma, *Nature Genetics*, submitted.
- Carlson, D., Srivastava, S., Vu, M.T., Shirley, M., Burrus, C., Carin, L., **Dunson, D.**, Kumar, S. and Dzirasa, K. (2015). Behavioral despair increases neuronal cost of action selection. *Nature*, submitted.
- Yazdani, A. and **Dunson, D.B.** (2015). A hybrid Bayesian approach for genome-wide association studies on related individuals. *Bioinformatics*, to appear.
- Ovaskainen, O., Abrego, N., Halme, P. and **Dunson, D.** (2015) Using latent variable models to identify large networks of species-to-species associations at different spatial scales. *Methods in Ecology and Evolution*, revision submitted.

BOOKS

Random Effect and Latent Variable Model Selection, ed. D.B. Dunson. John Wiley & Sons, 2008.

BDA3: Bayesian Data Analysis, Gelman, Carlin, Stern, **Dunson**, Ventari and Rubin, 2013.

BOOK CHAPTERS, REVIEW PAPERS & LETTERS

- Weinberg, C. R. and **Dunson, D. B.** (2000). Some issues in assessing human fertility. *Journal of the American Statistical Association* **95**, 300-303.
- **Dunson, D. B.** (2001). Commentary: Practical advantages of Bayesian analysis of epidemiologic data. *American Journal of Epidemiology* **153**, 1222-1226.
- Weinberg, C. R. and **Dunson, D. B.** (2002). Some issues in assessing human fertility. In *Statistics in the 21st Century*. Boca Raton: Chapman & Hall/CRC, 42-49.
- **Dunson, D. B.** (2002). Transgenic mouse model. In *Encyclopedia of Environmetrics*, A. H. El-Shaarawi and W. W. Piegorsch (eds), **2**, 2227-2229, John Wiley & Sons.
- **Dunson, D. B.** (2002). Fertility studies. In *Encyclopedia of Environmetrics*, A. H. El-Shaarawi and W. W. Piegorsch (eds), **2**, 769-773, John Wiley & Sons.
- **Dunson, D. B.** and Colombo, B. (2002). TwoDay Algorithm in predicting fertile time - Reply. *Human Reproduction* **17**, 1925-1926.
- Trouba, K., Nyska, A., Styblo, M., **Dunson, D.B.**, Lomnitski, L., Grossman, S., Moser, G., Suttie, A., Patterson, R., Walton, F., and Germolec, D. (2003). Effect of antioxidants on the papilloma response and liver glutathione modulation mediated by arsenic in Tg.AC transgenic mice. *Arsenic Exposure and Health Effects V*, W.R. Chappell, C.O. Abernathy, R.L. Calderon, and D.J. Thomas (eds), Elsevier.
- Stanford, J.B. and **Dunson, D.B.** (2003). Day-specific probabilities of conception in the menstrual cycle. In *Integrating Faith and Science Through Natural Family Planning*, R.J. Fehring (ed), 79-99, Marquette Press.
- **Dunson, D.B.** (2005). Bayesian Biostatistics. *Handbook of Statistics, 25, Bayesian Thinking: Modeling and Computation*, C.R. Rao and D.K. Dey (eds), Elsevier.
- Stanford, J.B., **Dunson, D.B.** and Tinggen, C. (2004). Studying human fertility: Response to Slama et al. and Joffe et al. *Environmental Health Perspectives* **112**, A605-A606.
- **Dunson, D.B.** (2005). Bayesian analyses of fecundability. *ISBA Bulletin*, **11**.
- Chen, Z. and **Dunson, D.B.** (2005). Rejoinder to “comments about joint modeling of cluster size and binary and continuous subunit-specific outcomes.” *Biometrics* **61**, 866-867.
- **Dunson, D.B.** (2006). Special issue on reproductive studies. *Statistical Methods in Medical Research* **15**, 91-92.
- **Dunson, D.B.**, Palomo, J., and Bollen, K.A. (2007). Bayesian structural equation modeling. *Handbook of Latent Variable and Related Models*, S-Y. Lee (editor), Elsevier.

- **Dunson, D.B.** (2007). Discussion of “Bivariate binomial spatial modeling of *Loa loa* prevalence in tropical Africa.” *Journal of the American Statistical Association*, 103:40-41.
- **Dunson, D.B.** (2008). Nonparametric Bayes applications to biostatistics. *Nonparametric Bayes Statistical Modeling*. Cambridge University Press, to appear.
- Cai, B. and **Dunson, D.B.** (2008). Bayesian variable selection in generalized linear mixed models. In *Random Effect and Latent Variable Model Selection*, ed. D.B. Dunson. John Wiley & Sons.
- Ghosh, J. and **Dunson, D.B.** (2008). Bayesian model selection in factor analytic models. In *Random Effect and Latent Variable Model Selection*, ed. D.B. Dunson. John Wiley & Sons.
- Kinney, S. and **Dunson, D.B.** (2008). Bayesian model uncertainty in mixed effects models. In *Random Effect and Latent Variable Model Selection*, ed. D.B. Dunson. John Wiley & Sons.
- **Dunson, D.B.** (2010). Nonparametric Bayesian bioinformatics. *Bayesian Modeling in Bioinformatics*. D.K. Dey, S. Ghosh, and B.K. Mallick (eds), Chapman & Hall/CRC.
- **Dunson, D.B.** (2010). Flexible Bayes regression of epidemiologic data. *The Oxford Handbook of Applied Bayesian Analysis*, A. O’Hagan and M. West (editors), Oxford University Press, UK.
- **Dunson, D.B.** and Bhattacharya, A. (2010). Nonparametric Bayes regression and classification through mixtures of product kernels (with discussion). *Bayesian Analysis 9*, to appear.
- Stanford, J.B., Mikolajczyk, R.T. and **Dunson, D.B.** (2010). Are Chinese people really more fertile? *Fertility & Sterility*, **94**, e58.

INVITED TALKS
(2004-PRESENT)

- Bayesian isotonic regression with applications in epidemiology. Seminar sponsored by Columbia University Department of Statistics (2004)
- Bayesian semiparametric regression for multivariate data. Seminar sponsored by the Department of Biostatistics, University of North Carolina at Chapel Hill (2004)
- Bayesian semiparametric latent response models. Seminar sponsored by the Institute of Statistics and Decision Sciences, Duke University (2004)
- Bayesian latent variable methods for biomedical data. ENAR Biometrics Society Meeting in Pittsburgh (2004)
- Bayesian order restricted inference with applications to studies of human fertility. Joint Statistical Meetings in Toronto (2004)
- Bayesian isotonic regression for epidemiology. Society for Epidemiologic Research (SER) Annual Meeting in Salt Lake City (2004)
- Bayesian isotonic regression. International Conference on Statistics in Health Sciences in Nantes, France (2004)
- Declines in male and female fertility with age: Bayesian methods and new results. Seminar sponsored by the Center for Studies in Demography and Ecology, University of Washington (2004)

- Latent variable modeling of longitudinal data. Workshop on Latent Variable Modeling in the Social Sciences sponsored by SAMSI (2004)
- Hierarchical density regression. Colloquium sponsored by the Department of Biostatistics, Harvard University (2004)
- Bayesian latent variable density regression. ENAR Biometrics Society Meeting in Austin, Texas (2005)
- Bayesian latent variable density regression with applications in molecular epidemiology. Joint Statistical Meetings (2005)
- Colloquium speaker, Department of Biostatistics and Bioinformatics, University of Louisville (2005)
- Seminar speaker, Department of Biostatistics, University of Pittsburgh (2006)
- Variable selection in nonparametric random effects models, ENAR International Biometric Society Meeting in Tampa, FL (2006)
- Semiparametric latent trajectory models, Workshop at University of Warwick, UK (2006)
- Invited discussant, Valencia Meeting, Alicante, Spain (2006)
- Seminar speaker, Sandia National Laboratories, Albuquerque, NM (2006)
- Seminar speaker, Department of Biostatistics, MD Anderson Cancer Center (Sept 2006)
- Seminar speaker, Department of Biostatistics, Columbia University (Oct 2006)
- Keynote speaker, International Workshop on Statistical Modelling of Complex Systems, Munich, Germany (Oct 2006)
- Seminar speaker, Department of Biostatistics, Johns Hopkins University (Oct 2006)
- Seminar speaker, Center for Statistics in the Social Sciences, University of Washington (Jan 2007)
- Invited speaker, International Chinese Statistical Association (ICSA) Meeting, Raleigh (Jun 2007)
- Invited workshop speaker, Society for Epidemiologic Research (SER) Annual Meeting, Boston, MA (Jun 2007)
- Invited speaker, Joint Statistical Meetings, Salt Lake City, Utah (July 2007)
- Invited speaker, Workshop on the “Construction and Properties of Bayesian Nonparametric Regression,” Isaac Newton Institute, Cambridge, UK (Aug 2007)
- Seminar speaker, Department of Statistics, University of Wisconsin (Sept 2007)
- Invited speaker, “RISK: Perception, Policy & Practice Workshop,” SAMSI, RTP, NC (October 2007)
- Seminar speaker, Department of Biostatistics, University of Michigan (October 2007)
- Seminar speaker, Department of Epidemiology & Biostatistics, University of South Carolina (October 2007)

- Invited speaker, Workshop on the “Modern challenges of curve modelling: inverse problems and qualitative constraints,” University of Bristol, UK (November 2007)
- Invited speaker, MCMSki conference in Bormio, Italy (January 2008)
- Invited speaker, session on “Bayesian modeling in biostatistics”, Statistics and Life Sciences Conference, Munich, Germany (March 2008)
- Invited speaker, ENAR, Arlington, VA (March 2008)
- Invited speaker, Yahoo!, Santa Clara, CA (June 2008)
- Invited speaker, Joint Statistical Meetings, Denver, CO (August 2008)
- Invited discussant, JASA-ACS Invited Paper, JSM, Denver, CO (August 2008)
- Seminar speaker, Department of Statistics, Carnegie Mellon University (October 2008)
- Seminar speaker, Bocconi University, Milan, Italy (December 2008)
- Seminar speaker, Department of Statistics & Operations Research, University of North Carolina at Chapel Hill (January 2009)
- Seminar speaker, Department of Epidemiology & Biostatistics, University of Georgia, Athens, GA (February 2009)
- Seminar speaker, Department of Biostatistics, Vanderbilt University (March 2009)
- Invited Speaker, CRM-ISM-GERAD Joint Colloquium, Montreal, Canada (April 2009)
- Plenary Speaker, 75th Anniversary, Department of Statistics, Iowa State University (June 2009)
- Invited Speaker, Nonparametric Bayes Program, Turin, Italy (June, 2009)
- Invited Speaker, TIES Environmetrics Conference, Bologna, Italy (July, 2009)
- Seminar Speaker, Medical University of South Carolina (October 2009)
- Invited Speaker, 60th Anniversary Celebration, Department of Biostatistics, University of North Carolina at Chapel Hill (October 2009)
- Invited Speaker, “Frontier of Statistical Decision Making and Bayesian Analysis” in honor of Jim Berger, San Antonio (March, 2010)
- Invited Speaker, Symposium on Modern Bayesian Non-parametrics, University of Texas at Austin (March, 2010)
- Seminar Speaker, Brigham Young University (April 2010)
- Invited Speaker, International Society for Bayesian Analysis (ISBA) World Meetings, Benidorm, Spain (June 2010)
- Lecturer, Applied Bayesian Summer School, Italy (June 2010)
- Invited Speaker, Joint Statistical Meetings, Vancouver, Canada (August 2010)
- Seminar Speaker, Department of Statistics, Columbia University (October 2010)
- Invited Discussant, AdapskiIII Workshop, Park City, Utah (January 2011)

- Invited Speaker, ENAR Biometrics Society Meeting, Miami, FL (March 2011)
- Invited Speaker, IISA Conference on Probability, Statistics & Data Analysis, Raleigh, NC (April 2011)
- Invited Speaker, Bayesian Nonparametric Workshop, Veracruz, Mexico (June 2011)
- Invited Speaker, Joint Statistical Meetings, Miami (August 2011)
- Invited Speaker, Department of Biostatistics, Emory University (September 2011)
- Invited Speaker, Department of Statistics, Penn State University (October 2011)
- Invited Speaker, Department of Statistics, University of Michigan (November 2011)
- Invited Speaker, German Region of International Biometrics Society, Berlin (March 2012)
- Seminar Speaker, Department of Statistics, University of South Carolina (March 2012)
- Invited Speaker, Rand (May 2012)
- Keynote Speaker, Statistics Graduate Student Research Day, University of Toronto (April 2012)
- Invited Speaker, Workshop on Bayesian Inference for Latent Gaussian Models with Application, Trondheim, Norway (June 2012)
- Plenary Speaker, Centennial Anniversary Conference, Department of Mathematical Sciences, University of Memphis (May 2012)
- Invited Speaker, 8th International Purdue Symposium on Statistics, Purdue University (June 2012)
- Invited Short Course, University of Padova, Padova, Italy (June 2012)
- Invited Speaker, Joint Statistical Meetings, San Diego (July 2012)
- Invited Speaker, Bayesian Nonparametric Workshop, ICERM, Brown University (Sept 2012)
- Invited Speaker, Triangle Genetics Symposium, Chapel Hill, NC (Sept 2012)
- Invited Speaker, Scaling up EM Connectomics Workshop, Janelia Farm Research Campus (Oct 2012)
- Invited Speaker, Department of Statistics, NC State (Oct 2012)
- Invited Speaker, Stochastics Meeting Lunteren, Netherlands (Nov 2012)
- Invited Speaker, Recent Advances in Statistical Inference, Padua, Italy (March 2013)
- Invited Speaker, Department of Biostatistics, University of Minnesota (April 2013)
- Keynote Speaker, Bayesian nonparametrics conference, Amsterdam (June 2013)
- Invited Speaker, Joint Statistical Meetings, Montreal (August 2013)
- Invited Speaker, PDT Partners Hedge Fund (October 2013)
- Invited Speaker, Department of Statistics, Virginia Tech (October 2013)
- Invited Speaker, Department of Biostatistics, Brown University (December 2013)

- Invited Speaker, Department of Biostatistics, Johns Hopkins University (Jan 2014)
- Invited Speaker, Department of Statistics, University of Texas at Austin (March 2014)
- Invited Speaker, ENAR Biometrics Society Meeting, Baltimore (March 2014)
- Invited Speaker, Department of Statistics, University of Warwick, UK (May 2014)
- Invited Speaker, CANSII/SAMSI Geometric, Topological & Graphical Methods Workshop, Fields Institute, Toronto (May 2014)
- Keynote Speaker, ISBIS/SDLM Conference (June 2014)
- Invited Speaker, Bayesian Biostatistics Conference, University of Zurich, Switzerland (June 2014)
- Invited Speaker, Joint Statistical Meetings, Boston (August 2014)
- Invited Speaker, Uncertainty Quantification Summer School, USC (August 2014)
- Plenary Speaker, Workshop on Big Data & Machine Learning, Greensboro, NC (October 2014)
- Hartley Memorial Lecturer, Department of Statistics, Texas A&M (October 2014)
- Invited Speaker, Department of Statistics, Harvard University (October 2014)
- Invited Speaker, Center for Statistics & Machine Learning (inaugural speaker), Princeton University (November 2014)
- Invited Speaker, Department of Statistics, Yale University (November 2014)
- Keynote Speaker, Minghui Yu Memorial Conference, Columbia University (April 2015)
- Invited Speaker, 10th Conference on Bayesian Nonparametrics, Raleigh, NC (June 2015)
- Invited Speaker, Conference on Big Data, Harvard University, Boston, MA (August 2015)
- Invited Speaker, ORFE, Princeton University (October 2015)
- Invited Speaker, Machine Learning, Columbia University (October 2015)
- Invited Speaker, Statistics, University of Chicago (Nov 2015)
- Invited Panelist, Bayesian nonparametrics: The next generation, NIPS Workshop (Dec 2015)
- Plenary Speaker, Sixth IMS-ISBA Joint Meeting Bayes Comp, Lenzerheide (Jan 2016)
- Invited Speaker, ENAR Biometrics Society Meeting, Austin, Tx (March 2016)
- Invited Lecturer, Warwick University, UK (April 2016)
- Plenary Speaker, SIS2016, Salerno, Italy (June 2016)
- Keynote Speaker, International Society for Bayesian Analysis (ISBA) World Meeting, Sardina (June 2016)

RESEARCH
GRANTS

- NOTE: NIH intramural investigators generally may not compete for extramural funds, so only became eligible for grants in August, 2008
- Principal Investigator, U.S. National Institutes of Health, R01 ES017240, “Nonparametric Bayes methods for biomedical studies” (\$176,607/yr), 05/15/09-03/31/15
- Principal Investigator, U.S. National Institutes of Health, R01 ES017436, “Bayesian methods for assessing gene by environment interactions” (\$220,523/yr), 09/25/09-06/30/14
- Co-PI, Defense Advanced Research Projects Agency FA8650-11-1-7150, “A Rigorous Statistical Framework for the Mathematics of Sensing, Exploitation and Execution”, 07/01/11 - 12/31/12.
- Co-Investigator, Office of Naval Research N00014-08-1-0212, “Transfer and active learning for intent recognition” (\$162,549/yr), 12/01/08-11/30/11
- Mini-PI, Defense Advanced Research Projects Agency N66001-07-C-2024, “Clinico-Molecular Predictors of Presymptomatic Infectious Disease” (\$476,111/yr), 09/10/09-09/30/12
- Co-PI, Defense Advanced Research Projects Agency, “Advanced Statistical Analysis of High-Dimensional Nervous-System Data” (\$233,352/yr), 03/30/11-02/28/12
- Co-Investigator, NIH (1R21-CA156168-01A1), “Exome-wide Screening for Common Mutations in Lymphoma” (\$130,500/yr), 06/10/11-05/31/13
- Co-Investigator, NSF (SES-1131897), “NCRN-MN:Triangle Census Research Network,” (\$426,007/yr), 10/01/11-09/30/16
- Co-PI, U.S. National Institutes of Health, R01-ES020619, “Bayesian Methods for High-Dimensional Epidemiologic Data” (\$74,886/yr), 8/24/11-05/31/16
- PI, Office of Naval Research (ONR), N00014-14-1-0245, “Bayesian Learning for High-Dimensional Low Sample Size Data” (\$448,913), 5/1/14-4/30/17
- Co-Investigator, Health Effects Institute, 4946-RFPA10-3/14-7, “Air Quality by Genomics Interactions in a Cardiovascular Disease Cohort,” (\$316,202), 6/1/14-5/31/15
- Statistical Analyst, Leukemia & Lymphoma Society, 0747-14, “Predicting Treatment Futility in Refractory Diffuse Large B Cell Lymphoma,” (\$360,036), 1/1/14-12/31/15
- PI, Nestle Institute of Health Sciences, “Bayesian Models for Longitudinal Omics and Metabolomics Data”, (\$120,246), 11/15/15-11/15/16
- Investigator, NIH, “Defining the Functional Role of Mutations in Diffuse Large B Cell Lymphoma,” (\$390,335), 4/1/15-3/31/20
- Co-Investigator, NIH, “The Genetics of Hepatosplenic T Cell Lymphoma,” (\$150,000), 4/01/15-3/31/17
- PI, NSF “Scalable Bayes uncertainty quantification with guarantees” (\$985,882), 11/01/15-10/31/19
- PI, ARO “Predicting performance from network data” (\$742,129) (recommended for funding)

- co-PI, sub-contract Laboratory of Analytic Sciences “Theory and methods for coarsened decision making” (~ \$100K)
- PI, IARPA Seedling “Statistical knowledge evaluation procedures for the intelligence community (SKEPTIC)” (~ \$1M) (pending)
- PI, Duke Accenture Program “Bayesian predictive analytics for targeted patient care” (~ \$50K)

EDITORIAL DUTIES

- Joint Editor, *Journal of the Royal Statistical Society, Series B*, 2016-
- Area Chair, *International Conference on Machine Learning Research*, 2014
- Action Editor, *Journal of Machine Learning Research*, 2013-2015
- Area Chair, *Neural Information Processing Systems (NIPS)*, 2009
- Co-Editor, *Bayesian Analysis*, 2006 to 2013
- Associate Editor, *Biometrika*, 2008 to 2015
- Associate Editor, *JASA Applications and Case Studies*, 2006 to 2012
- Associate Editor, *JRSS-B*, 2012 to present
- Associate Editor, *Psychometrika*, 2007 to 2009
- Associate Editor, *Biostatistics*, 2006 to 2008
- Associate Editor, *Biometrics*, 2000 to 2007
- Editor, Special Issue of *Statistical Methods in Medical Research*, 2005
- Editor, Special Issue of *Paediatric and Perinatal Epidemiology*, 2005

NATIONAL & INTERNATIONAL SERVICE

- Founder of IMS Data Science group, 2015
- COPSS President’s Award Selection Committee, 2016
- Organizer, SAMSI Program on Bayesian Nonparametrics, 2015
- Co-Leader, SAMSI Computational Neuroscience Program, 2015-2016
- US National Academy of Sciences Committee on Incorporating 21st Century Science into Risk-Based Evaluations, 2014-present
- Chair, Fisher Lecturer Selection Committee, 2014
- Organizer, IMS-MSR Conference on Statistics and Data Science, Boston, 2015
- Local Organizing Committee, SAMSI Beyond Bioinformatics Program, 2014-2015
- Local Organizing Committee, Nonparametric Bayes Conference, Raleigh, 2015
- IMS Fellow Selection Committee, 2014-2015
- Fisher Lecturer Selection Committee, 2013

- Organizing Committee, Nonparametric Bayes Conference, Amsterdam, 2013
- IMS Program Chair, Joint Statistical Meetings, Montreal, August, 2012
- Biomedical Computing and Health Informatics Study Section, NIH, June, 2011
- Organizing Committee, Nonparametric Bayes Workshop, Veracruz, Mexico 2011
- Program Chair, Artificial Intelligence in Statistics (AISTATS) 2011 Conference, St Petersburg, FL
- Program Committee, Southern Regional Council on Statistics 2010 Conference, Norfolk, VA
- Student Paper Award Committee, NIPS 2009
- Organizing Committee, Nonparametric Bayes Workshop, NIPS 2009
- Program Committee, 7th Workshop on Bayesian Nonparametrics, Moncalieri, Italy, June 2009
- Program Committee Chair, AISTATS 2009
- Program Committee 6th Workshop on Bayesian Inference in Stochastic Processes, Italy, June 2009
- Board of Directors, International Society for Bayesian Analysis (ISBA), 2008 to present
- Membership Committee, ISBA, 2009 to present
- Mortimer Spiegelman Award Committee, 2008 to present
- Organizing Committee, 40th Symposium on the Interface: Computing Science and Statistics, Durham, NC, May 2008
- Media Expert, American Statistical Association 2007 to present
- Program Committee, ENAR International Biometrics Society Meeting, 2007 - 2008
- Student Paper Award Committee, ENAR, 2005 to 2008
- Savage Award Committee, 2004 to 2006 (Chair, 2005)
- Continuing Education Committee, ENAR 2003, 2006
- Membership Committee, ENAR 2001 to 2003
- Regional Advisory Board, ENAR 2000 to 2002
- EPA Perchlorate Risk Assessment Group, 1999 to 2000
- EMF Science Review Symposium, 1998

DIRECTION OF
PHD RESEARCH

- Daniele Durante, Univ Padua, Italy, 2012 to 2016 (winner of Laplace Award, SBP Grand Data Challenge)
- Michael Jauch, DSS Duke, 2015 to present
- James Johndrow, DSS Duke, 2012 to 2016

- Akihiko Nishimura, Math Duke, 2013 to 2016
- Willem van den Boom, DSS Duke, 2014 to present
- Lu Wang, DSS Duke, DSS Duke, 2015 to present
- Xiangyu (Samuel) Wang, DSS Duke, 2013 to 2016
- Ye (Eric) Wang, DSS Duke, 2014 to present
- Tsuyoshi Kuniyama, DSS Duke, 2011 to 2015 (Postdoctoral Fellow University of Washington)
- Shaan Qamar, DSS Duke, 2012 to 2015 (Google)
- Yun Yang, DSS Duke, 2011 to 2014 (Postdoctoral Associate UC Berkeley Statistics)
- Anjishnu Banerjee, DSS Duke, 2010 to 2013 (Amazon Research)
- Francesca Petralia, DSS Duke, 2009 to 2013 (Postdoctoral Associate, Mt Sinai)
- David Kessler, Department of Biostatistics, University of North Carolina at Chapel Hill, 2007 to 2013 (SAS)
- Kai Cui, DSS Duke, 2010 to 2012 (Validus Group, Wall Street)
- Matt Wheeler, Department of Biostatistics, UNC-CH, 2010 to 2013 (NIOSH)
- Anirban Bhattacharya, DSS Duke, 2009 to 2013 (Assistant Professor, Texas A&M University)
- Antonio Canale, Univ. Padua, Italy, 2010 to 2012 (Postdoctoral Associate, University of Turino, Italy)
- Debdeep Pati, Department of Statistical Science (DSS), Duke, 2009 to 2012 (Assistant Professor, Florida State University)
- Minghui Shi, DSS Duke, 2009 to 2011 (Google)
- Hongxia Yang, DSS Duke, 2008 to 2010 (Yahoo!)
- Suprateek Kundu, Department of Biostatistics, UNC-CH, 2009 to 2012 (Assistant Professor, Biostatistics, Emory University)
- Zhaowei Hua, Biostatistics, UNC-CH, 2007 to 2011 (Millennium: The Takeda Oncology Company)
- Yeonseung Chung, Biostatistics, UNC-CH, 2005 to 2008 (Assistant Professor, Kaist University, Korea)
- Ju-Hyun Park, Biostatistics, UNC-CH, 2005 to 2008 (Assistant Professor, Dongguk University, Korea)
- Abel Rodriguez, DSS Duke (Alan Gelfand co-advisor) 2005 to 2007 (Professor of Statistics, UC Santa Cruz)
- Jamie Bigelow, Biostatistics, UNC-CH, 2003 to 2006 (Research Assistant Professor, UNC-CH)
- Michael Pennell, Biostatistics, UNC-CH, 2003 to 2006 (Associate Professor of Biostatistics, Ohio State University)
- Laura Gunn, DSS Duke (Dalene Stangl co-advisor) 2002 to 2004 (Associate Director of the Global eHealth Unit & Biostatistician for Research Design Service)
- Brian Neelon, Biostatistics, UNC-CH, 2001 to 2003 (Assistant Professor, Biostatistics & Bioinformatics, Duke University)

POSTDOCTORAL
FELLOWS

- Zhengwu Zhang (Hongtu Zhu co-advisor), 2015 to present
- Jeff Miller, DSS Duke, 2014 to present
- Abhra Sarkar, DSS Duke, 2014 to present
- Jyotishka Datta, DSS Duke/SAMSI, 2014 to present
- Agniva Som, DSS Duke, 2014 to 2015 (Amazon)
- Rajarshi Guhaniyogi, DSS Duke, 2012 to 2014 (Assistant Professor, Statistics, University of California at Santa Cruz)
- Lizhen Lin, DSS Duke, 2012 to 2014 (Assistant Professor, Statistics, University of Texas at Austin)
- Eric Lock, DSS Duke, 2012 to 2014 (Assistant Professor, Biostatistics, University of Minnesota)
- Stanislav Minsker, Duke Math (Mauro Maggioni co-advisor), 2012 to 2014 (Assistant Professor, Mathematics, University of Southern California)
- Vinayak Rao, DSS Duke, 2012 to 2014 (Assistant Professor, Statistics, Purdue University)
- Sanvesh Srivastava, DSS Duke (Barbara Engelhardt co-advisor), 2013 to 2015 (Assistant Professor, Statistics, University of Iowa)
- Nathaniel Strawn, Duke Math (Mauro Maggioni & Larry Carin co-advisors), 2011 to 2012 (Assistant Professor, Mathematics, Georgetown University)
- Joshua Vogelstein, DSS Duke (Mauro Maggioni, Math co-advisor), 2012 to 2014 (Assistant Professor, BME, Johns Hopkins)
- Irina Irincheeva, DSS Duke, 2011 to 2012 (Nestle, Lausanne)
- Bin Zhu, Human Genetics, Duke (Allison Ashley-Koch co-advisor), 2010 to 2012 (Tenure track, National Cancer Institute)
- Hongxiao Zhu, SAMSI & Duke, 2010 to 2012 (Assistant Professor of Statistics, VA Tech)
- Lauren Hannah, DSS Duke, 2010 to 2012 (Assistant Professor of Statistics, Columbia University)
- Artin Armagan, DSS Duke, 2010 to 2011 (SAS)
- Emily Fox, DSS Duke (Mike West co-advisor), 2009 to 2011 (Assistant Professor of Statistics, University of Washington)
- Sourish Das, SAMSI and DSS Duke, 2008 to 2009 (SAS)
- Abhishek Bhattacharya, DSS Duke, 2008 to 2010 (Assistant Professor, Indian Statistical Institute)
- Lianming Wang, NIEHS, 2006 to 2008 (Associate Professor of Statistics, University of South Carolina)
- Mingan Yang, NIEHS, 2006 to 2008 (Assistant Professor of Mathematics, Central Michigan University)

- Richard MacLehose, NIEHS, 2005 to 2008 (Associate Professor of Epidemiology & Community Health, University of Minnesota)
- Bo Cai, NIEHS, 2003 to 2006 (Associate Professor of Biostatistics, University of South Carolina)
- Sean O'Brien, NIEHS, 2002 to 2004 (Associate Professor of Biostatistics & Bioinformatics, Duke University)
- Zhen Chen, NIEHS, 2001 to 2003 (Investigator, National Institutes of Health)

MASTERS
STUDENTS

- Yu Jiang (Concurrent MS - PhD student Computational Biology & Bioinformatics)
- Dimitri Putilin (Concurrent MS - PhD student Molecular Genetics & Microbiology)
- Yan Shang (Concurrent MS - PhD student Operations Management)
- Yingjian Wang (Concurrent MS - PhD student Electrical & Computer Engineering)
- Yi Yin (Concurrent MS - PhD student Psychology & Neuroscience)