James G. Scott

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Academic Appointments

University of Texas (Austin, TX)
Assistant Professor, July 2009 – present
Department of Information, Risk, and Operations Management
McCombs School of Business

Education

Duke University (Durham, NC)
Ph.D. in Statistical Science, April 2009
Thesis: "Bayesian Adjustment for Multiplicity"
Advisor: James O. Berger

Cambridge University (Cambridge, England)
Master's in Mathematics (Part III of the Mathematical Tripos), June 2005
Undertaken while holding a Marshall Scholarship

University of Texas (Austin, TX)
B.S. in Mathematics, May 2004
Thesis: "Bayesian Methods in Computing the Ages of Galactic Star Clusters"
Advisor: William H. Jefferys

Published Papers

James G. Scott and Carlos M. Carvalho (2008). "Feature-inclusion stochastic search for Gaussian graphical models." *Journal of Computational and Graphical Statistics* 17.4: 790–808.

James G. Scott and James O. Berger (2006). "An exploration of aspects of Bayesian multiple testing." *Journal of Statistical Planning and Inference* 136.7: 2144–62.

von Hippel, Ted; Jefferys, William H.; **Scott, James G.**; Stein, Nathan; Winget, D. E.; DeGennaro, Steven; Dam, Albert; Jeffery, Elizabeth (2006). "Inverting color-magnitude diagrams to access precise star cluster parameters: a Bayesian approach." *The Astrophysical Journal* 645.2: 1436–47.

Papers Accepted for Publication

Carlos M. Carvalho, Nicholas Polson, and **James G. Scott** (2009). "Handling sparsity via the horseshoe." To appear in the *Journal of Machine Learning Research* W&CP 5 (AIStats).

James G. Scott. "Nonparametric Bayesian multiple testing for longitudinal performance stratification." Duke University Department of Statistical Science, Discussion Paper 2008-09. Accepted for publication in *The Annals of Applied Statistics*.

Carlos M. Carvalho and **James G. Scott**. "Objective Bayesian model selection in Gaussian graphical models." Duke University Department of Statistical Science Discussion Paper 2007-19. Accepted for publication in *Biometrika*.

Jose M. Quintana, Carlos M. Carvalho, and **James G. Scott**. "Bayesian forecasting, futures markets, and risk modelling." In *Handbook of Applied Bayesian Analysis*. Edited by Tony O'Hagan and Mike West. Oxford University Press, to appear.

Submitted Papers

James G. Scott and Nicholos Polson (2009). "Hypergeometric–beta scale mixtures of normals." Duke University Department of Statistical Science Technical Report.

Carlos M. Carvalho, Nicholas Polson, and **James G. Scott** (2009). "Shrink globally, act locally: regularized regression with multivariate scale mixtures." Duke University Department of Statistical Science Technical Report 2009-05.

James G. Scott and James O. Berger. "Bayes and empirical-Bayes multiplicity adjustment in the variable-selection problem." Duke University Department of Statistical Science, Discussion Paper 2008-10.

Carlos M. Carvalho, Nicholas G. Polson, and **James G. Scott**. "The horseshoe estimator for sparse signals." Duke University Department of Statistical Science, Discussion Paper 2008-31.

Working Papers

James G. Scott and James O. Berger. "On priors for multiple comparisons and subgroup analyses."

James G. Scott and Carlos M. Carvalho. "Covariance regularization with the horseshoe."

Mumtaz Ahmed, Michael Raynor, and **James G. Scott**. "Longitudinal performance stratification of corporate ROA histories: a Bayesian view."

James G. Scott, Carlos M. Carvalho, and Paul R. Hahn. "Some developments in sparse factor models for high-dimensional multivariate probit analysis."

Talks

"Bayes and empirical-Bayes multiplicity adjustment in the variable-selection problem" (invited)
Statistical Laboratory
University of Cambridge, March 2009.

"Models for sparsity in graphical and function spaces" (invited)
Sloan School of Management
Massachusetts Institute of Technology, February 2009.

"Bayesian adjustment for multiplicity in regression and functional testing" (invited)
Department of Statistics
Rice University, February 2009.

"Bayesian adjustment for multiplicity in regression and functional testing" (invited)
Department of Statistics
University of Michigan, February 2009.

"Bayesian adjustment for multiplicity in large model-selection problems" (invited)
Department of Statistics
University of California, Berkeley, January 2009.

"Bayesian adjustment for multiplicity in large model-selection problems" (invited)
Department of Information, Risk, and Operations Management, McCombs School of Business
University of Texas at Austin, January 2009.

"Objective Bayesian model selection for Gaussian graphical models" (invited)
Department of Statistics, Wharton School of Business
University of Pennsylvania, January 2009.

"Bayesian adjustment for multiplicity in large model-selection problems" (invited)
Statistics and Econometrics Seminar, Booth School of Business
University of Chicago, January 2009.

"Robust estimation of sparse signals with the horseshoe" (invited)
Department of Statistics
Virginia Tech, December 2008.

"Feature-inclusion stochastic search for Gaussian graphical models" (contributed)
ASA Joint Statistics Meetings
Denver, CO, August 2008.

"Objective Bayesian model selection in Gaussian graphical models" (contributed)
Ninth ISBA World Meeting
Hamilton Island, Australia, July 2008.

"Nonparametric multiple hypothesis testing of autoregressive time series" (contributed)
Seminar on Bayesian Inference in Econometrics and Statistics
University of Chicago, May 2008.

"Hierarchical modeling for DNA microarrays: multiplicity and normalization" (invited)
SAMSI Workshop on Multiplicity and Reproducibility
Research Triangle Park, NC, July 2006.

Consulting Experience

Deloitte Consulting (San Francisco, CA)
April 2007 – Present
Topics: longitudinal stratification and testing of historical corporate performance

Bayesian Efficient Strategic Training (Hoboken, NJ)
July 2007 – August 2007
Topics: nonlinear regression and graphical models in portfolio-allocation problems

Fellowships and Awards

National Science Foundation Graduate Research Fellowship, 2006–2009

Marshall Scholarship for study in Great Britain, 2004–2006