Garland Bennett Durham

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Education

Ph.D. in Economics, University of North Carolina, May 2001.

M.S. in Mathematics, University of Illinois, May 1985.

B.S. in Mathematics, University of Kentucky, May 1983.

Dissertation

Likelihood-based estimation techniques for continuous-time diffusion processes and applications to finance. Advisor: L. Ronald Gallant, April 2001.

Research interests

Econometrics, Financial Econometrics, Bayesian Econometrics, Sequential Monte Carlo, Asset Pricing, Option Pricing

Employment

Associate Professor (Finance), Orfalea College of Business, California Polytechnic State University, June 2018 – present.

Assistant Professor (Finance), Orfalea College of Business, California Polytechnic State University, September 2014 – May 2018.

Senior Economist, Quantos Analytics, June 2012 – August 2014.

Assistant Professor (Finance), Leeds School of Business, University of Colorado at Boulder, August 2004 – May 2012.

Assistant Professor (Economics), Tippie School of Business, University of Iowa, August 2001 – May 2004.

Peer-reviewed journal articles

Bayesian inference for ARFIMA models (with John Geweke, Susan Porter-Hudak and Fallaw Sowell). *Journal of Time Series Analysis* (forthcoming).

Sequentially adaptive Bayesian learning algorithms for inference and optimization (with John Geweke). *Journal of Econometrics* (forthcoming). Five-year impact factor: 2.407.

A comment on Christoffersen, Jacobs and Ornthanalai (2012), "Dynamic jump intensities and risk premiums: Evidence from S&P500 returns and options" (with John Geweke and Pulak Ghosh), *Journal of Financial Economics* 115 (2015), 210–214. Five-year impact factor: 6.991.

Improving asset price prediction when all models are false (with John Geweke), *Journal of Financial Econometrics* 12 (2014), 278–306. Five-year impact Factor: 2.000

Risk-neutral modelling with affine and non-affine models, *Journal of Financial Econometrics* 11 (2013), 650–681. Five-year impact factor: 2.000.

Beyond stochastic volatility and jumps in returns and volatility (with Yangho Park), *Journal of Business and Economic Statistics* 31 (2013), 107–121. Five-year impact factor: 3.507.

SV Mixture Models with Application to S&P 500 Index Returns, *Journal of Financial Economics* 85 (2007), 822–856. Five-year impact factor: 6.991.

Monte Carlo Methods for Estimating, Smoothing, and Filtering One- and Two-Factor Stochastic Volatility Models, *Journal of Econometrics* 133 (2006), 273–305. Five-year impact factor: 2.407

Likelihood-Based Specification Analysis of Continuous-Time Models of the Short-Term Interest Rate, *Journal of Financial Economics* 70 (2003), 463–487. Five-year impact factor: 6.991.

Numerical Techniques for Maximum Likelihood Estimation of Continuous-Time Diffusion Processes (with L. Ronald Gallant), *Journal of Business and Economic Statistics* 20 (2002), 279–316. Five-year impact factor: 3.507.

Peer-reviewed book chapters

Rényi divergence and Monte Carlo integration (with John Geweke). Forthcoming in Handbook of Infometrics, Oxford University Press.

Bayesian inference for logistic regression models using sequential posterior simulation (with John Geweke and Huaxin Xu). In S.K. Upadhyay, U. Singh, D.K. Dey and A. Loganathan (Eds.), Current Trends in Bayesian Methodology with Applications (2015), Chapman and Hall, 287–310.

Adaptive Sequential Posterior Simulators for Massively Parallel Computing Environments (with John Geweke). In I. Jeliazkov and D. Poirier (Eds.), Advances in Econometrics 35: Bayesian model comparison (2014), Emerald Group Publishing, 1–44.

Other publications

JASA book review (invited): "Statistical Methods for Stochastic Differential Equations," M. Kessler, A. Lindner and M. Sørensen (eds.), *Journal of the American Statistical Association* 109 (2014), 453–453. Impact factor: 1.979.

Invited comment on "Iterative and Recursive Estimation in Structural Non-Adaptive Models" by S. Pastorello, V. Patilea and E. Renault (with J. Geweke), *Journal of Business and Economic Statistics* 21 (2003), 490.

Presentations

Southwestern Finance Association, Albuquerque, NM, April 2018.

Australian Statistical Conference/Institute of Mathematical Statistics Annual Meeting, Sydney, Australia, July 2014.

Advances in Econometrics, Irvine, CA, Feb 2014.

Cleveland State University, Feb 2014.

Cal Poly, January 2014.

Utah State University, December 2013.

GPU Computing Workshop, Colorado State University, July 2013.

GPU Computing Workshop (full day), Computational Economics and Finance Conference, July 2013.

Federal Reserve Board, April 2013.

CSDA Conference on Computational and Financial Econometrics, Oviedo, Spain, Dec 2012.

Rimini Conference in Economics and Finance, Toronto, Aug 2012

Amazon.com Inc, Seattle, Feb 2012.

Nonlinear and Financial Econometrics Conference, Toulouse School of Economics, May 2011.

Federal Reserve Bank of Atlanta, Feb 2011.

QWAFAFEW (Denver), November 2010.

Front Range Finance Seminar, September 2010.

University of Colorado Econometrics Workshop, August 2010.

NBER Summer Institute, July 2010.

Eastern Finance Association Annual Meetings, April 2010.

HEC Montreal, February 2010.

University of Colorado Society of Physics Students, November 2009.

University of Colorado Applied Mathematics Seminar, October 2009.

Eastern Finance Association Annual Meetings, May 2009.

Western Economic Association International Annual Meetings, June 2009.

North American Summer Meetings of the Econometric Society, May 2008.

Front Range Finance Seminar, September 2005.

North Carolina A&T Univerity, March 2005.

North American Summer Meetings of the Econometric Society, May 2004.

University of Iowa, February 2004.

University of Colorado, February 2004.

CIRANO, March 2002.

Joint Statistical Meetings, JBES invited paper, August 2001.

North American Summer Meetings of the Econometric Society, June 2001.

University of Western Ontario, February 2001.

University of Iowa, February 2001.

Washington University, February 2001.

Penn State, January 2001.

Rutgers University, January 2001.

University of Pennsylvania, September 2000.

NBER Summer Institute, July 2000.

Working papers

Sequential posterior simulation with simulated likelihoods.

Bayesian inference for fractionally integrated time series models (with J Geweke, S Fallaw and S Porter-Hudak).

Perceptual elasticity of expected price: Bayesian model of expected price given factors of price sensitivity (with J Lindsey-Mullikin and J Danes).

Stock price models with stochastic parameters.

Awards

Australian Research Council, 2013-2015, $800,000, partner investigator.

Summer Research Grant, College of Business, University of Iowa, 2003.

Old Gold Summer Fellowship, University of Iowa, 2002.

Service

Orfalea College Taskforce on Student Teaching Evaluations, Fall 2018 –

Net Impact, Advisor, Fall 2018 –

Orfalea College, Professional Leave and Research Committee, Chair, Fall 2018 –

Academic Senate, substitute Caucus Chair, Spring 2018.

Academic Senate, Spring 2017 –

Orfalea College, Professional Leave and Research Committee, Fall 2016 – Spring 2018.

Orfalea College, Coadvisor, Financial Management Association, Fall 2016 –

Business Analytics taskforce, Fall 2014 –

Orfalea College, Technology Committee, Fall 2014 – Spring 2016.

Undergraduate Curriculum and Policy Committee (University of Colorado), Fall 2008 – Spring 2011.

PhD Program Committee (University of Colorado), Fall 2007 – Spring 2011.

Technology Committee (University of Colorado), Fall 2004 – Spring 2008.

Grievance Committee (University of Colorado), Spring 2008.

Division recruiting (University of Colorado), Fall 2004 – Spring 2008.

Member of Applied Mathematics Department affiliated faculty (University of Colorado), Fall 2009 – Spring 2011.

Discussant

Southwestern Finance Association, Albuquerque, NM, April 2018.

Eastern Finance Association Annual Meetings, April 2010 (session chair).

Western Economic Association International Annual Meetings, June 2009.

Eastern Finance Association Annual Meetings, May 2009.

Ad hoc referee

Journal of Statistical Software

Bayesian Analysis

Journal of Econometrics

Econometrics Journal

Canadian Journal of Statistics

Journal of Money, Credit and Banking

Mathematical Finance

Journal of Business and Economic Statistics

Journal of Applied Probability and Statistics

Journal of Applied Econometrics

Review of Economic Studies

Econometrics Journal

Econometric Reviews

Journal of Real Estate Economics

Review of Economics and Statistics

Computational Statistics and Data Analysis

National Science Foundation

Studies in Nonlinear Dynamics & Econometrics

Statistics and Probability Letters

Journal of the Royal Statistical Society Series B

Journal of Computational and Graphical Statistics

Journal of Empirical Finance

Journal of Financial Econometrics

Journal of Computational Finance

Scandinavian Journal of Statistics

Annals of Operations Research

Journal of Forecasting

Econometrica

Journal of the American Statistical Association

Journal of Financial Economics

Member

American Finance Association

Society for Financial Studies

Society for Financial Econometrics

American Statistical Association

Courses taught

Econometrics II (GSE S522), Winter 2015, Winter 2016, Winter 2017, Winter 2018, Spring 2018, Winter 2019.

Advanced Corporate Finance (BUS 438), Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Fall 2018.

Senior Project (BUS 464), Winter 2017, Winter 2018.

Financial Econometrics (University of Colorado FNCE 7550), Fall 2008 and Fall 2010.

Corporate Finance (University of Colorado FNCE 3010), Fall 2004 – Fall 2011.

Applied Econometrics (University of Iowa, PhD level), Fall 2001 and Fall 2002.

Statistics for Strategy (University of Iowa, undergraduate level), Spring 2002 – Spring 2004.

PhD dissertation committees

Yangho Park, 2010 (Chair).

Jeff Merrell, 2010.

Anwar Alazmi, 2007.

Moonsoo Kang, 2007.

Guojin Gong, 2004.

Zhe Zhang, 2003.

George Chang, 2002.

Masters thesis committees

Pai Wang, 2009 (Chair).

Independent study supervision

Robert Richmond, 2011 ("Sequential Monte Carlo methods using massively parallel computing hardware").

Benjamin Emery, 2006 ("An analysis of incarceration in Colorado").