Drew D. Creal

Contact Information

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Education

Ph.D., Economics – 2007**, University of Washington**, Seattle, WA

Thesis: *Essays in Sequential Monte Carlo Methods for Economics and Finance*

Committee: Eric Zivot (advisor), Chang-Jim Kim, Charles R. Nelson, Stephen Turnovsky.

M. A., Economics – 2004, **University of Washington**, Seattle, WA

B. S., Business Management – 1999, **Cornell University**, Ithaca, NY

Employment

7/2013 – present, *Associate Professor of Econometrics and Statistics,* **Booth School of Business, The University of Chicago.**

7/2009 – 6/2013, *Assistant Professor of Econometrics and Statistics,* **Booth School of Business, The University of Chicago.**

2/2007 – 6/2009, *Post-doctoral Research Fellow,* Department of Econometrics and Operations Research**, Vrije Universiteit Amsterdam.**

Research Interests

Time Series Econometrics, Financial Econometrics, Macroeconometrics, Bayesian Econometrics

Refereed Publications

Market-based Credit Ratings, (with Ruey Tsay and Robert Gramacy), *Journal of Business & Economic Statistics,* forthcoming, 2014.

Observation-Driven Mixed Measurement Dynamic Factor Models with an Application to Credit Risk, (with Bernd Schwaab, Siem Jan Koopman, and André Lucas), *The Review of Economics and Statistics,* forthcoming, 2014.

Generalized Autoregressive Score Models with Applications (with Siem Jan Koopman and André Lucas), *Journal of Applied Econometrics,* Vol. 28, No. 5, pp. 777-795, 2013.

A Survey of Sequential Monte Carlo Methods for Economics and Finance, *Econometric Reviews,* Vol. 31, No. 3, pp. 245-296, 2012.

A Dynamic Multivariate Heavy-Tailed Model for Time-varying Volatilities and Correlations (with Siem Jan Koopman and André Lucas), *Journal of Business & Economic Statistics,* Vol. 29, No. 4, pp. 552-563, 2011.

Extracting a Robust U.S. Business Cycle using a Time-Varying Multivariate Model-Based Band-pass Filter, (with Siem Jan Koopman and Eric Zivot), *Journal of Applied Econometrics,* Vol. 25, No. 4, pp. 695-719, 2010.

Testing the Assumptions Behind Importance Sampling, (with Siem Jan Koopman and Neil Shephard), *Journal of Econometrics*, Vol. 149, No. 1, pp. 2-11, 2009.

The Relationship Between the Beveridge-Nelson Decomposition and Other Popular Permanent-Transitory Decompositions in Economics, (with Kum Hwa Oh and Eric Zivot), *Journal of Econometrics*, Vol. 146, No. 2, pp. 207-219, 2008.

Analysis of filtering and smoothing algorithms for Lévy-driven stochastic volatility models. *Computational Statistics and Data Analysis*, Vol. 52, pp. 2863-2876, 2008.

Invited Comments

Particle Markov chain Monte Carlo methods, by C. Andrieu, A. Doucet, and R. Holenstein. (with Siem Jan Koopman). *Journal of the Royal Statistical Society, Series B,* Vol. 72, No. 3, pp. 269-342, 2010.

Unpublished Papers

Term Structure of Interest Rate Volatility and Macroeconomic Uncertainty (with Jing Cynthia Wu).

Estimation of non-Gaussian Affine Term Structure Models (with Jing Cynthia Wu), *submitted.*

Modeling Dynamic Volatilities under Skewness and Fat Tails, (with Xin Zhang, Siem Jan Koopman, and André Lucas).

A Class of non-Gaussian State Space Models with Exact Likelihood Inference, *submitted.*

The Multinational Advantage (with Leslie Robinson, Jonathan Rogers and Sarah Zechman)

Testing for Parameter Stability Across Competing Modeling Frameworks, (with Francesco Calvori, Siem Jan Koopman, and André Lucas), *submitted.*

High-Dimensional Dynamic Stochastic Copula Models (with Ruey Tsay), *submitted.*

Research in Progress

Uncertainty Shocks and Vector Autoregressions

Working Papers

Sequential Monte Carlo Samplers for Bayesian DSGE models

Awards and Honors

- William Ladany Faculty Scholar, University of Chicago, Booth School of Business (2013-2014)
- Grover and Creta Ensley Fellowship in Economic Policy, Department of Economics, University of Washington (2006-2007)
- Graduate Student Teaching Award, Department of Economics, University of Washington (2005-2006)
- Langton Award for Outstanding Undergraduate Teaching, Department of Economics, University of Washington (2004-2005)

Teaching Experience

- **Instructor**: University of Chicago, Booth School of Business
  Business Statistics – MBA course (Winter 2010, Fall 2010, Fall 2011, Fall 2012)

- **Instructor**: Vrije Universiteit Amsterdam
  Computational Econometrics-Master's Course (Winter 2008, Winter 2009)

- **Instructor**: University of Washington
  Intermediate Macroeconomics (Winter 2005, Summer 2005)
  Introduction to Macroeconomics (Spring 2004, Summer 2004)

Professional Activities

Seminars and conferences:

2014: University of Illinois at Chicago (Finance), scheduled
CIREQ Econometrics Conference on Financial and Time Series Econometrics (Montreal), scheduled

2013: The Ohio State University (Econ)
NBER-NSF Time Series Conference (Fed Board)
Society for Financial Econometrics (Singapore)

Society for Non-linear Dynamics and Econometrics (Milan)
Workshop on Score Driven Models (Amsterdam)

2012: New York University Stern School of Business (Finance)
Federal Reserve Bank of Philadelphia
Society for Financial Econometrics (Oxford)
Triangle Econometrics Workshop (UNC Chapel Hill, Duke, NC State)
University of Washington (Econ)
Northwestern University Kellogg School of Business (Finance)
Federal Reserve Bank of Atlanta

2011: University of British Columbia (Statistics)
NBER Summer Institute, Forecasting and Empirical Methods
University of Wisconsin Madison (Econ)
Econometric Society European Meetings (Oslo)

2010: Studies in Nonlinear Dynamics and Econometrics (Novara, Italy)
International Symposium on Financial Engineering and Risk Management (Taipei)
Quantitative Methods in Business Applications, Peking University, (Beijing)

2009: University of Oxford (Econ)
Society for Financial Econometrics, University of Geneva
Universite Catholique de Louvain

Member: Econometric Society, Society for Financial Econometrics

Referee: *Annals of Applied Statistics, Annals of Statistics, Bayesian Analysis, Computational Statistics & Data Analysis; Econometric Theory; Journal of Applied Econometrics; Journal of Business & Economic Statistics; Journal of the American Statistical Association; Journal of Econometrics; Journal of Financial Econometrics; Journal of Macroeconomics; Journal of Money, Credit & Banking; Journal of Statistical Planning & Inference, Journal of Time Series Econometrics; Journal of Credit Risk; Macroeconomic Dynamics.*