

Mathew W. McLean

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Education

Ph.D. in Operations Research, Cornell University, to be conferred August 2013.

Advisors: David Ruppert and Giles Hooker

Dissertation: On Generalized Additive Models for Regression with Functional Data

M.S. in Operations Research, Cornell University, 2013.

B.Sc.(Hons.) in Statistics, University of Manitoba, 2008.

Professional Experience

Postdoctoral researcher, Texas A&M University, 2013-present

Supervisor: Raymond J. Carroll

Honors, Awards, & Fellowships

NSERC PGS-D, 2011–2013

NSERC PGS-M (CGS-M Declined), 2008–2009

NSERC Undergraduate Student Research Award, University of Manitoba, 2007 and 2008

Dr. Cyril H. Goulden Memorial Scholarship, 2008

U. of M. Students Union Scholarship, University of Manitoba, 2005, 2006, and 2007

Queen Elizabeth II Entrance Scholarship, 2004-2005

Publications and software are available at <http://stat.tamu.edu/~mmclean/>.

Publications

M. W. McLean, G. Hooker, A.-M. Staicu, F. Scheipl, D. Ruppert (2012). Functional Generalized Additive Models. *Journal of Computational and Graphical Statistics*, to appear.

D. S. Matteson, **M. W. McLean**, D. B. Woodard, S. G. Henderson (2011). Forecasting emergency medical service call arrival rates. *Annals Of Applied Statistics*, 5(2B).

Pending Manuscripts

M. W. McLean, F. Scheipl, G. Hooker, S. Greven, D. Ruppert. *Bayesian Functional Generalized Additive Models for Sparsely Observed Covariates*, submitted.

M. W. McLean, G. Hooker, D. Ruppert. *Restricted Likelihood Ratio Tests for Linearity in Scalar on Function Regression*, submitted.

M. W. McLean, G. Hooker, D. Ruppert. *Bayes Factors for Penalized Splines Using Generalized g-Priors*, in preparation.

Software

Components of the R package `refund` available on CRAN, maintained by Lei Huang (2012).

`fgam()`, `af()`, `lf()`, `predict.fgam()`, `vis.fgam()`

Fitting, prediction, and visualization for functional generalized additive models.

Online Appendix to "Functional Generalized Additive Models", containing R code used in simulations.

Talks and Poster Presentations

Functional Generalized Additive Models

Annual Conference of the German and Austrian Statistical Association, Vienna, Austria, September, 2012 (invited talk)

ORIE PhD Student Colloquium, September, 2012 (talk)

Imaging, Communications and Finance: Stochastic Modeling of Real-world Problems, Columbia University, June, 2011 (poster)

SAMSI Closing Workshop on the Analysis of Object Data, SAMSI, Research Triangle Park, June, 2011 (poster)

Statistical Methods for Very Large Datasets Conference, Johns Hopkins University, June, 2011. (poster)

Joint Statistical Meetings, Vancouver, Canada, August, 2010 (talk)

SCoOp: Statistical Computation of Option Prices (poster)

University of Manitoba

Academic Experience

Cornell University

Teaching Assistant, Basic Engineering Probability and Statistics, Summer 2012.

Graduate Research Assistant, David Ruppert, Summer 2011.

Teaching Assistant, Data Mining, Spring 2011.

Teaching Assistant, Basic Engineering Probability and Statistics, Fall 2010.

Graduate Research Assistant, David Ruppert, Summer 2010.

Graduate Research Assistant, David Matteson, Shane Henderson, and Dawn Woodard, 2009–2010.

Teaching Assistant, Basic Engineering Probability and Statistics, Fall 2009.

Teaching Assistant, Introductory Engineering Stochastic Processes I, Spring 2009.

Teaching Assistant, Basic Engineering Probability and Statistics, Fall 2008.

University of Manitoba

Undergraduate Research Assistant, A. Thavaneswaran, Summer 2008.

Undergraduate Research Assistant, Ruppa K. Thulasiram, Summer 2007.

Professional Activities

Member, American Statistical Association, 2010–Present.

Member, Institute of Mathematical Statistics, 2010–Present.

Referee for Biometrics, Biometrika, Journal of the American Statistical Association.

Service and Leadership

Cornell Operations Research Graduate Student Association President, 2011-2012

Computing Proficiency

R, SAS, MATLAB, \LaTeX , MS Office, Java

Miscellaneous

Completed Canadian Securities Course, 2007.