John R. Lewis

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Education

- 2009–2014 **Statistics**, The Ohio State University, Columbus, OH, Ph.D. & M.S. Dissertation Title: Bayesian Restricted Likelihood Methods
- 2006–2008 Mathematics, Miami University, Oxford, OH, M.S.
- 2002–2006 Education & Mathematics and Statistics, Miami University, Oxford, OH, B.A. & B.S.

 Magna cum Laude

Ph.D. Dissertation

- title Bayesian Restricted Likelihood Methods
- advisors Dr. Steven N. MacEachern and Dr. Yoonkyung Lee

Experience

- 2014–Present Senior Member of the Technical Staff, Sandia National Laboratories, Albuquerque, NM.
 - 2011–2014 **Research Assistant**, Nationwide Center for Advanced Customer Insights, Fisher College of Business, The Ohio State University, Columbus, OH.
 - 2012 Summer Student Intern, JPMorgan Chase & Co., Columbus, OH.
 - 2010–2011 **Teaching Assistant**, The Ohio State University, Columbus, OH.
 - 2010 Research Assistant, Summer Undergraduate Mathematical Sciences Research Institute, Miami University, Oxford, OH.
 - 2008–2009 Mathematics Teacher, Dupont Manual High School, Jefferson County Public Schools, Louisville, Kentucky.
 - 2006–2008 **Teaching Assistant**, Miami University, Oxford, OH.

Honors and Awards

- 2014 Craig Cooley Memorial Prize (OSU)
- 2009 University Fellowship (OSU)
- 2009 Lubrizol Foundation Fellowship (OSU)
- 2008 Graduate Assistant Effective Teaching Award (Miami University)

- 2008 Faculty Prize (Miami University)
- 2006 Graduation with Distinction (Miami University)
- 2006 Alumni Senior Prize (Miami University)
- 2005 Mary Jeanette and Clifford Harvey Scholarship (Miami University)
- 2004 J. Paul and John P. Albert Scholarship (Miami University)
- 2004 Koehler Prize in Mathematics (Miami University)

Sevice

- 2014-Present Journal Reviewer: Bayesian Analysis, Journal of VV and UQ
 - 2012-2013 Student Co-President, Department of Statistics, The Ohio State University
 - 2010, 2011 Science Fair Judge, State Science Day, Ohio Academy of Science

Professional Memberships

2011–Present ASA

2012 - 2014 IMS

Publications

Journals

John R. Lewis, Adah Zhang, and Christine M. Anderson-Cook, Comparing multiple statistical methods for inverse prediction in nuclear forensics applications, Chemometrics and Intelligent Laboratory Systems (2018).

Edward V Thomas, John R Lewis, Christine M Anderson-Cook, Tom Burr, and Michael S Hamada, Selecting an informative/discriminating multivariate response for inverse prediction, Journal of Quality Technology 49 (2017), no. 3, 228–243.

Conferences

John R. Lewis and Dusty Brooks, *Uncertainty quantification and comparison of weld residual stress measurements and predictions*, ASME 2017 Pressure Vessels and Piping Conference **6B: Materials and Fabrication** (2017).

John R. Lewis, Steven MacEachern, and Yoonkyung Lee, *Robust inference via the blended paradigm*, JSM Proceedings, Section on Bayesian Statistical Science, 2012, pp. 1773–1786.

Technical Reports

Aubrey C. Eckert-Gallup, John R. Lewis, Nevin S. Martin, Lauren B. Hund, Andrew J Clark, Dusty M. Brooks, and Paul E. Mariner, *xLPR scenario analysis report*, SAND2017-2854, Sandia National Laboratories, Albuquerque, New Mexico 87185 and Livermore, California 94550, March 2017.

John R. Lewis and Dusty Brooks, Uncertainty quantification and comparison of weld residual stress measurements and predictions, SAND2016-10932, Sandia

National Laboratories, Albuquerque, New Mexico 87185 and Livermore, California 94550, October 2016.

John R. Lewis, Steven MacEachern, and Yoonkyung Lee, *Bayesian Restricted Likelihood Methods*, Tech. Report Technical Report No. 878, Department of Statistics, The Ohio State University, 2014.

In Progress

John R. Lewis, Steven MacEachern, and Yoonkyung Lee, *Bayesian restricted likelihood methods*, Under revision for Bayesian Analysis.

J. Derek Tucker, John R. Lewis, Lyndsay Shand, and Jonathan W. Lane, *Bayesian modeling of self-exciting point processes with missing temporal histories*.

Talks

- o "Statistical Applications at Sandia", *University of Illinois Urbana Champaign*, Champaign, Illinois, Sept. 27, 2017.
- o "Handling Missing Data in Self-Exciting Temporal Point Processes" *Joint Statistical Meetings*, Baltimore, Maryland, July 29 August 3, 2017.
- "R Projects", Statistical Sciences Internal Seminar, Sandia National Laboratories, July, 18, 2017.
- o "Selecting an Informative/Discriminating Multivariate Response for Inverse Prediction" *Joint Statistical Meetings*, Chicago, Illinois, July 30-August 4, 2016.
- o "The Blended Paradigm: Robust Bayesian Modeling using Non-Sufficient Statistics" Craig Cooley Memorial Prize Talk, The Ohio State University, Statistics Department, Columbus, Ohio, April 8, 2014.
- o "Bayesian Inference via the Blended Paradigm" *Joint Statistical Meetings*, Montréal, Québec, Canada, August 3 8, 2013.
- o "Robust Inference via the Blended Paradigm" *Joint Statistical Meetings*, San Diego, California, July 28-August 2, 2012.

Computing

Languages R, Python, MATLAB, SAS, JMP, Minitab

Systems Mac OS, Linux, Windows

Typesetting LATEX, RMarkdown, Word

Software *brlm* - an R package for Bayesian Restricted Likelihood Methods (https://Development github.com/jrlewi/brlm)