JEREMY THOMAS GASKINS

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EDUCATION

University of Florida *Summer 2013*
Ph.D. in Statistics
Dissertation Title: Bayesian methods for modeling dependence structures in longitudinal data
Advisor: Mike Daniels
G.P.A.: 3.97

Auburn University *Spring 2007*
B.S. in Mathematics, B.S. in Applied Mathematics
G.P.A.: 3.97

PROFESSIONAL EXPERIENCE

University of Louisville (UofL) Aug. 2013 to Present
Assistant Professor *Department of Bioinformatics and Biostatistics*
School of Public Health and Information Sciences (SPHIS)

RESEARCH INTERESTS

Longitudinal data, simultaneous covariance estimation, estimation of correlation structure, missing data models, methods for mixed data, Markov chain Monte Carlo methods

HONORS AND AWARDS

- ENAR (Eastern North American Region of the International Biometric Society) Distinguished Student Paper Award Winner, *March 2013*
- Statistics Faculty Award for Best Senior Student, University of Florida, *Fall 2012*
- Katzoff Fellowship, University of Florida, *Fall 2011 – Summer 2013*
- University of Florida Graduate Alumni Fellowship, *Fall 2007 – Summer 2011*

PUBLICATIONS

Refereed Publications

- **Gaskins, J.T.**, M.J. Daniels, and B.H. Marcus. (2016) Bayesian methods for non-ignorable dropout in joint models in smoking cessation studies. *Journal of the American Statistical Association*, Author approved version online.
- **Gaskins, J.T.**, and M.J. Daniels. (2016) Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data. *Journal of Computational and Graphical Statistics*. 25(1): 167–186.
- Cho, A.H., C.A. Chase, R.L. Koenig, D.D. Treadwell, **J.T. Gaskins**, J.B. Morris, J.P. Morales-Payan. (2016) Phenotypic characterization of sixteen accessions of sun hemp (*Crotalaria juncea* L.) in Florida. *Agronomy Journal*, Accepted.
- Shiber, L., E. Gregory, **J.T. Gaskins**, S. Biscette. (2016) Adnexal Masses Requiring Reoperation in Women With Previous Hysterectomy With or Without Adnexectom. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 200:123–127.

- Amsbaugh, M.J., N.H. Bhatt, A.K. Amsbaugh, T. Hunter, **J.T. Gaskins**, L.P. Parker, D. Metzinger, K. Sowards. (2016) Computed Tomography-Planned Interstitial Brachytherapy for Locally Advanced Gynecologic Cancer: Outcomes and Dosimetric Predictors of Urinary Toxicity. *Brachytherapy*, 15(1):49–56.
- Amsbaugh, M.J., N. Bhatt, T. Hunter, **J.T. Gaskins**, L. Parker, D. Metzinger, A. Amsbaugh, K. Sowards, M. El-Ghamry. (2015) Computed tomography planned interstitial brachytherapy for recurrent gynecologic cancer. *Brachytherapy*, 14(5): 600–605.
- Hunter, R.K., C.D. Nevitt, **J.T. Gaskins**, B.B. Keller, H.C. Bowler. (2015) Adipose-derived stromal vascular fraction cell effects on a rodent model of thin endometrium. *PLOS One*. 10(12): e0144823. doi:10.1371/journal.pone.0144823
- Krause, M.S., K. Holthouser, **J.T. Gaskins**, H.C.L. Bohler Jr., and S.T. Nakajima. (2014) Initial hCG levels in ectopic pregnancies after embryo transfer: Use of the Bayes classifier for risk assessment. *Journal of Reproductive Medicine*, Accepted.
- **Gaskins, J.T.**, M.J. Daniels, and B.H. Marcus. (2014) Sparsity inducing prior distributions for correlation matrices of longitudinal data. *Journal of Computational and Graphical Statistics*. 23(4): 966–984.
- **Gaskins, J.T.**, and M.J. Daniels. (2013) A nonparametric prior for simultaneous covariance estimation. *Biometrika*, 100(1): 111–124.

Book Chapters

- Daniels, M.J., and **J.T. Gaskins**. (2013) Bayesian methods for the analysis of mixed categorical and continuous (incomplete) data. In *Analysis of Mixed Data: Methods and Applications* (edited by A.R. de Leon and K. Carriére Chough). pp. 189–208. Chapman & Hall/CRC Press.

Submitted Publications

- **Gaskins, J.T.** (2016) Hyper Markov laws for correlation matrices. Submitted.
- *Wu, Y., **J.T. Gaskins**, M. Kong, S. Datta. (2016) Profiling the Effects of Short Time-course Cold Ischemia on Tumor Protein Phosphorylation using a Bayesian Approach. To be submitted.
- *Choo-Wosoba, H.†, **J.T. Gaskins**†, S.M. Levy, S. Datta. (2016) A Bayesian approach to zero-inflated clustered count data with dispersions. To be submitted.
- Kinman, C.L., C. Lemieux, A. Agrawal, **J.T. Gaskins**, K.V. Meriwether, S.L. Francis. (2016) The Effect of Age of Prolapse Bother. Submitted.
- Amsbaugh, M.J., M.B. Ysuf, **J.T. Gaskins**, A.E. Dragun, N. Dunlap, T. Guan, S. Woo. (2016) A dose-volume response model for brain metastases treated with frameless single fraction robotic radiosurgery: Seeking to better predict response to treatment. Submitted.
- Dondik, Y., N. Virji, T.S. Butler, **J.T. Gaskins**, K. Pagidas, I. Sung. (2016) The value of anti-Mullerian hormone in predicting clinical pregnancy after intrauterine insemination. Submitted.
- Sterrett, M., C.M. Powell, **J.T. Gaskins**, S. Baumgartner, J. Hamm, M.E. Sterrett. (2016) Expanded antibiotic prophylactic therapy for prevention of Cesarean surgical site infection. Submitted.
- Shiber, L.-D.J., **J.T. Gaskins**, D. Ginn Do, S.M. Biscette, R. Pasic, M. Dassel. (2016) Vaginal length and sexual function following total laparoscopic hysterectomy. Submitted.

*Denotes manuscripts that are the result of supervised student research.
†Denotes joint first authors.

TEACHING EXPERIENCE

University of Louisville
Instructor

- PHST 661: Probability, *Fall 2016*
- PHST 650: Intermediate Topics in Biostatistics for Health Sciences, *Fall 2016*
  Co-developed this course with three other instructors; responsible for 3 week module on multivariate methods
- PHST 675: Independent Study in Biostatistics (Bayesian Analysis of High-throughput Data), *Fall 2016*
- PHST 675: Independent Study in Biostatistics (Further Study in Bayesian and Computational Statistics), *Fall 2016*
- PHST 691: Bayesian Statistics, *Fall 2013, Spring 2015, Spring 2016*
- PHST 602: Biostatistics Decision Science Seminar, *Spring 2014, Fall 2015, Spring 2016*
- PHST 675: Independent Study in Biostatistics (Further Study in Bayesian Statistics), *Fall 2015*
- PHUN 301: Biostatistics Concepts and Methods for Public Health, *Fall 2014*
  Developed this course

Seminar on Teaching for New Faculty, Participant, *Fall 2015 to Spring 2016*

University of Florida
Instructor

- STA 3032: Statistics for Engineers - Fall 2009

Teaching Assistant

- STA 2023: Introduction to Statistics - Fall 2008, Spring 2009

PRESENTATIONS

- "Adjusting a Course from Semester to Semester" Lightning Talk, Seminar on Teaching for New Faculty, UofL, *April 2016*
- "Statistical Analysis for OB/GYN Research" Department of Obstetrics, Gynecology, & Women's Health Research Didactics, UofL, *March 2016*
- "Hyper Markov Laws for Correlation Matrices" Contributed paper at the Joint Statistical Meetings (JSM), Seattle, Washington, *Aug. 2015*
- "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies" UofL Seminar, *April 2015*
- "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies" Invited seminar at Statistics Department, Oregon State University, *Jan. 2015*
- "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies" Invited seminar at Department of Biostatistics, Indiana University, Indianapolis, *Jan. 2015*
- "Dealing with Missing Data in Public Health Research" EpiHour Seminar at Department of Epidemiology, UofL, *Oct. 2014*
- "Biostatistics for OB/GYN Research" Grand Rounds Seminar for Department of Obstetrics, Gynecology, & Women's Health, UofL, *Sept. 2014*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data" Topic-contributed session at JSM, Boston, Massachusetts, *Aug. 2014*
- "Bayesian methods for nonignorable dropout in joint models in smoking cessation studies" Invited session at WNAR (Western North American Region of the International Biometric Society) Meeting, Honolulu, Hawaii, *June 2014*

- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation for longitudinal data" Invited speaker in session "Methods for Complex Longitudinal Data" at the Summer Research Conference of the Southern Regional Council on Statistics, Galveston, Texas, *June 2014*
- "Sparsity inducing prior distributions for correlation matrices of longitudinal data" UofL Seminar, *March 2014*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Contributed paper at JSM, Montreal, Canada, *Aug. 2013*
- "Sparse prior distributions for correlation matrices through the partial autocorrelations" Oral Contributed Paper at ENAR Spring Meetings, Orlando, Florida, *March 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at Department of Biostatistics, University of Iowa, *Feb. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at Department of Statistics, University of Illinois, Urbana-Champaign, *Feb. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at Department of Mathematical Sciences, Clemson University, South Carolina *Feb. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at Department of Statistics, University of Minnesota, *Feb. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at RAND Corporation, Santa Monica, California, *Jan. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at UofL, *Jan. 2013*
- "Covariance partition priors: A Bayesian approach to simultaneous covariance estimation" Job talk at Department of Statistics, Miami University, Oxford, Ohio, *Jan. 2013*
- "A nonparametric prior for simultaneous covariance estimation" at UF Student Seminar, *Oct. 2011*
- "The Dirichlet process and a multivariate extension" at UF Student Seminar, *Oct. 2010*

PROFESSIONAL SERVICE

Journal Referee

Annals of Applied Statistics, Biometrika, Statistics in Medicine, PLOS ONE, Journal of Applied Statistics, Journal of Statistical Theory and Practice, Journal of the American Statistical Association, Biostatistics, Journal of Statistical Computation and Simulation, Annals of Biometrics & Biostatistics

Grant Review

- Reviewed an application for the Lise Meitner Postdoctoral Position, Austrain Science Fund (FWF), *Sept. 2016*

Department Service

- Recruitment Committee, *Fall 2013 to Present*
- Comprehensive Exam Committee, *Summer 2014, 2015, 2016*
- Organized Department Seminar series, *Spring 2014, Fall 2015, Spring 2016*
- Committee to Review and Revise Comprehensive Exam, *Spring 2014*
- Faculty Search Committee, Co-chair, *Fall 2014 to Spring 2016*
- Ph.D. committees served on:
  - ▹ Hyoyoung Choo-Wosoba, *Spring 2016*
  - ▹ Chathura Siriwardhna, *Spring 2016*
  - ▹ Sarah Kendrick, *expected 2017*
  - ▹ You Wu, *expected 2017*

- ▷ Soutik Ghosal, *expected 2018*

- MS in Biostatistics committees served on:
  - ▷ John Craycroft, *Spring 2016*
- MSc in Clinical Investigation Sciences committees served on:
  - ▷ Shan Biscette, *Spring 2016*
- MPH Advisor:
  - ▷ Joanna Ng, *expected 2017*

SPHIS Service

- Faculty Forum, appointed replacement member *Spring 2016 to Present*

Professional Membership

- American Statistical Association, *2012 to Present*
  - ▷ Secretary, Kentucky chapter, *Fall 2015 to Present*
  - ▷ Chair for session on Bayesian Clinical Trials at JSM, *Aug. 2013*
- Eastern North American Region of the International Biometrics Society, *2013 to Present*

COLLOBORATIVE WORK

Dept. of Obstetrics, Gynecology, & Women's Health April 2014 to present
UofL, School of Medicine

- Collaborate and provide statistical support on research projects within the department
- 10% effort annually

Dept. of Radiation Oncology August 2015 to present
UofL, School of Medicine

- Collaborate and provide statistical support on research projects within the department
- 5% effort annually

Commonwealth Institute of Kentucky July 2015 to present
UofL SPHIS

- Collaborate and provide statistical support on research projects within the institute
- Supervision and mentoring of consulting center staff and graduate students
- 20% effort annually

Biostatistics Internship Summer 2010
Biostatistics & Research Data Core,
Center for Health Research, Geisinger Health System *Danville, Penn.*

- Collaborated with epidemiologists and physicians on a project to better understand the progression of chronic kidney disease
- Supervisor: Jason Roy

Updated September 2016