

**D. ANDREW BROWN**  
dandrewbrown.com

School of Mathematical and Statistical Sciences  
Martin Hall, O-309  
Clemson University  
Clemson, SC 29634-0975  
(864) 656-1716  
ab7@g.clemson.edu

**RESEARCH INTERESTS**

Bayesian statistics, neuroimaging data analysis, large-scale inference, computer model validation, uncertainty quantification

**ACADEMIC POSITIONS**

**School of Mathematical and Statistical Sciences, Clemson University, Clemson, SC**  
*Assistant Professor* August 2013 - Present

**Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC**  
*Visiting Research Fellow* January 2016 - May 2016

**PROFESSIONAL EXPERIENCE**

**Vistakon, Johnson & Johnson Vision Care, Inc., Jacksonville, FL**  
*Biostatistics Intern* May 2011 - August 2011

**Porsche Cars North America, Inc., Atlanta, GA**  
*Information Technology Intern* December 2007 - July 2008

**EDUCATION**

**Department of Statistics, University of Georgia, Athens, GA**  
*Ph.D. in Statistics* August 2013  
Dissertation: *Bayesian Multiple Testing Under Dependence with Application to Functional Magnetic Resonance Imaging*

Major Professors: Gauri S. Datta and Nicole A. Lazar

*M.S. in Statistics* August 2010

## SUPPORTED RESEARCH

### Grants

“A Multiscale, Multiphysics Modeling Framework for Genome-to-Phenome Mapping via Intermediate Phenotypes,” National Science Foundation, Senior Personnel, \$2,999,998 (2018-2022).

Transformative Initiative for Generating Extramural Research (TIGER): “Accelerating the data collection and analysis timeline for a funded NSF INCLUDES Launch Pilot to be competitive for a full NSF INCLUDES ALLIANCE proposal deadline,” Clemson University, Co-PI, \$14,631 (2018).

“Statewide Consortium: Supporting Underrepresented Populations in Precalculus by Organizational Redesign toward Engineering Diversity (SC:SUPPORTED),” National Science Foundation, Co-PI, \$299,994 (2017-2019).

“Preparing Resilient and Operationally Adaptive Communities through an Interdisciplinary, Venture-based Education (PROACTIVE),” (NSF Research Traineeship program), National Science Foundation, Senior Personnel, \$2,989,899 (2016-2021).

“Simulation-Based Design of Polymer Nanocomposites for Structural Applications,” National Science Foundation, Co-PI, \$427,724 (2016-2019).

“Model Validation Analytics in Support of High-Consequence Decision Making,” Department of Education (Graduate Assistance in Areas of National Need program), Co-PI, \$1,291,841 (2015-2019).

### Fellowships

SAMSI Visiting Research Fellowship, National Science Foundation grant DMS-1127914 to the Statistical and Applied Mathematical Sciences Institute (2016).

Research Experience for Undergraduates Fellowship, National Science Foundation (2006).

## TEACHING EXPERIENCE

### Department of Mathematical Sciences, Clemson University

#### *Courses taught:*

MATH 8050 - Data Analysis	FA 2016, FA 2015, SP 2015, FA 2014, SP 2014
MATH 8020 - General Linear Hypothesis II	SP 2018, SP 2017
MATH 8010 - General Linear Hypothesis I	FA 2018, FA 2017, FA 2016
MATH 4/6000 - Theory of Probability	FA 2018, FA 2014
MATH 4910 - Independent Study	FA 2016
MATH 3020 - Statistics for Scientists and Engineers	FA 2017, FA 2015, SP 2014, FA 2013

**Department of Statistics, University of Georgia**

*Courses taught:*

STAT 2000 - Introductory Statistics FA 2012, SP 2012, SP 2011  
STAT 4220 - Applied Experimental Designs SP 2013, SU 2012

*Teaching assistant for the following courses:*

STAT 2000 - Introductory Statistics, STAT 4210 - Statistical Methods, STAT 4220 - Applied Experimental Designs, STAT 4/6240 - Sampling and Survey Methods, STAT 8060 - Computing Techniques in Statistics I, STAT 8200 - Design of Experiments for Research Workers

**HONORS, RECOGNITIONS, AND AWARDS**

**IMS New Researchers Travel Award** August 2016  
*Institute of Mathematical Statistics*

**SAMSI Visiting Research Fellow** Spring 2016  
*Statistical and Applied Mathematical Sciences Institute*

**Jeffreys Excellence Prize for Best Applied Poster** December 2013  
*International Society for Bayesian Analysis*

**Travel Grant** December 2013  
*International Society for Bayesian Analysis*

**Best Senior Student** April 2013  
*Department of Statistics, University of Georgia*

**Travel Grant** October 2012  
*The Graduate School, University of Georgia*

**Travel Grant** October 2012  
*Department of Statistics, University of Georgia*

**Boyd Harshbarger Student Travel Award** June 2012  
*Southern Regional Council on Statistics*

**Travel Award** November 2011  
*Statistical and Applied Mathematical Sciences Institute*

**Paul D. Coverdell Franklin Foundation Neuroimaging Travel Award** August 2011  
*University of Georgia*

**Outstanding Teaching Assistant** April 2010  
*University of Georgia*

**Mu Sigma Rho National Statistics Honor Society** March 2010  
*Department of Statistics, University of Georgia*

**Graduate with Highest Honor** December 2006  
*Georgia Institute of Technology*

## PROFESSIONAL MEMBERSHIPS

International Society for Bayesian Analysis October 2013 - Present  
Eastern North American Region of the  
International Biometric Society October 2013 - Present  
Institute of Mathematical Statistics November 2010 - Present  
American Statistical Association August 2008 - Present

## OTHER ACTIVITIES AND SERVICE

**Referee** for the following journals:

*Annals of Applied Statistics*  
*Applied Stochastic Models in Business and Industry*  
*Bayesian Analysis*  
*Biometrics*  
*Computer Methods in Applied Mechanics and Engineering*  
*IISE Transactions*  
*Journal of the American Statistical Association*  
*Journal of Statistical Planning and Inference*  
*NeuroImage*  
*PLoS ONE*  
*SIAM/ASA Journal on Uncertainty Quantification*  
*Statistical Analysis and Data Mining*  
*Statistics in Medicine*

**Invited Book Reviewer** for *Biometrics*

**Industrial Statistics Section Treasurer** January 2018 - Present  
*International Society for Bayesian Analysis*

**Chapter Treasurer** July 2017 - Present  
*South Carolina Chapter of the American Statistical Association*

**Distinguished Speaker Series Committee, Chair** July 2017 - Present  
*Clemson University Program on Resilient Infrastructure in Environmental Systems*  
*Engineering and Science (NSF National Research Traineeship)*

<b>Clemson University Primary Liaison</b> <i>National Institute of Statistical Sciences</i>	May 2017 - Present
<b>ASA Student Chapter Faculty Advisor</b> <i>Clemson University</i>	May 2017 - Present
<b>Graduate Student Academic Advisor</b> <i>Department of Mathematical Sciences, Clemson University</i>	August 2014 - Present
<b>Undergraduate Student Academic Advisor</b> <i>Department of Mathematical Sciences, Clemson University</i>	August 2014 - Present
<b>Statistics and Probability Seminar Committee, Member</b> <i>Department of Mathematical Sciences, Clemson University</i>	August 2013 - Present
<b>Advanced Placement Statistics Exam, Reader</b> June 2017, June 2016, June 2014, June 2013 <i>Educational Testing Service</i>	
<b>Advanced Placement Statistics Practice Exam, Reader/Question Leader</b> <i>Clemson University</i>	April 2018, April 2017, April 2016, April 2015, April 2014
<b>Session Chair</b> at the following conferences:	
Joint Statistical Meetings	August 2017, August 2015
Workshop on Statistical Perspectives of Uncertainty Quantification	May 2017
Eastern North American Region of the International Biometric Society (ENAR) Spring Meeting	March 2017
<b>Undergraduate Affairs Committee, Member</b> <i>Department of Mathematical Sciences, Clemson University</i>	August 2014 - August 2015
<b>Research Committee, Member</b> <i>Department of Mathematical Sciences, Clemson University</i>	August 2013 - August 2015
<b>Clemson University Representative</b> <i>Annual Business Meeting of the Southern Regional Council on Statistics (SRCOS)</i>	October 2014
<b>FMRI Statistics Research Group, Member</b> <i>University of Georgia</i>	August 2009 - August 2013
<b>Student Statistics Club</b> <i>Department of Statistics, University of Georgia</i>	
Member	August 2008 - August 2013
Secretary	August 2009 - August 2010

## GRADUATE STUDENT ADVISING

### Direction

Xun Dong, M.S. in Mathematical Sciences (in progress)  
Carl Ehrett, Ph.D. in Mathematical Sciences (in progress)  
Kanon Kamronnahr, Ph.D. in Mathematical Sciences (in progress)  
Jiajing Niu, Ph.D. in Mathematical Sciences (in progress)  
Aaron Moose, Ph.D. in Mathematical Sciences (in progress)  
Aaron Moose, M.S. in Mathematical Sciences (December 2018), “Modeling match results in the English Premier League using a hierarchical Bayesian Poisson model”  
Jun Yuan, M.S. in Mathematical Sciences (August 2018), “Bayesian calibration of computer models using the Gaussian process prior”  
Jiajing Niu, M.S. in Mathematical Sciences (August 2018), “Identification of differences in cortical thickness in multiple sclerosis patients based on race”  
Carl Ehrett, M.S. in Mathematical Sciences (May 2017), “Subset simulation with multivariate draw”  
Michael Lamoreux, M.S. in Mathematical Sciences (May 2016), “Empirical null estimation via central matching with application to functional magnetic resonance imaging”  
Jaqueline Kwiasowski, M.S. in Mathematical Sciences (August 2015), “Thresholding of statistical maps in functional neuroimaging via independent filtering”  
Emily Nystrom, M.S. in Mathematical Sciences (May 2014), “Comparing error structures for statistical analysis of functional magnetic resonance imaging time series data,” co-advisor with Dr. Julia Sharp

### Advisory Committees

Sanwar Ahmad, Ph.D. in Mathematical Sciences (in progress), “Comparison between mollifier method and Gauss-Newton method for tomography”  
Evan Chodora, Ph.D. in Mechanical Engineering (in progress)  
Fun Choi John Chan, Ph.D. in Mathematical Sciences (in progress)  
Paul Cubre, Ph.D. in Mathematical Sciences (in progress)  
Chase Joyner, Ph.D. in Mathematical Sciences (in progress)  
Shyla Kupis, Ph.D. in Environmental Engineering (in progress)  
Scott Scrugges, M.S. in Mathematical Sciences (in progress), “An efficient curve evolution algorithm for multiphase image segmentation”  
Stella Watson, Ph.D. in Mathematical Sciences (in progress)  
Xiyang Tan, M.S. in Mathematical Sciences (December 2018), “Autocorrelation function estimation via penalized least squares method”  
Lu Sun, M.S. in Mathematical Sciences (August 2018), “Maximizing Airbnb hosts’ revenue in New York City: A case study of model selection methodologies using an Airbnb data set”  
Jing Li, M.S. in Mathematical Sciences (May 2017), “Data analysis of diverse learning environment survey data”  
Garrison Stevens, Ph.D. in Civil Engineering (August 2016), “Experiment-based validation and uncertainty quantification of partitioned models: Improving predictive capability of multi-scale plasticity models”  
Stella Watson, M.S. in Mathematical Sciences (August 2016), “A comparison of the point process and predictive process Gaussian spatial models with an application to land parcel data”

Stefani Mokalled, M.S. in Mathematical Sciences (May 2016), “Estimating biomarker distributions via pooled assessments”  
 Shiyi Tu, Ph.D. in Mathematical Sciences (December 2015), “Objective Bayesian analysis on the quantile regression”  
 Yinggu Bao, M.S. in Mathematical Sciences (August 2015), “Analysis of peach gene expression data”  
 Isaac Justus, M.S. in Mathematical Sciences (May 2015), “Quantifying information loss and time series predictions of housing utility data”  
 Janie McDonald, M.S. in Mathematical Sciences (May 2015), “An exact test for binary data using weights and empirical Bayes estimates for cluster level success probabilities”  
 Paran Norton, M.S. in Mathematical Sciences (May 2015), “Adjustments for treatment by block interaction in a genetics study”  
 Garrison Stevens, M.S. in Civil Engineering (December 2014), “Stochastic wavenumber estimation: Damage detection through simulated guided lamb waves”

## PROFESSIONAL DEVELOPMENT

212 Professional Development Hours, Educational Testing Service  
*Data Visualization Using R*, Training Session, Clemson University (February 2018)  
*Version Control Using Git/Github*, Training Session, Clemson University (October 2017)  
*Computational Challenges in Neuroimaging Data*, Roundtable, Joint Statistical Meetings (August 2016)  
*SAMSI Challenges in Functional Connectivity Workshop*, Statistical and Applied Mathematical Sciences Institute (April 2016)  
*SAMSI Challenges in Computational Neuroscience Opening Workshop*, Statistical and Applied Mathematical Sciences Institute (August 2015)  
*SAMSI Computational Neuroscience Summer School*, Statistical and Applied Mathematical Sciences Institute (July 2015)  
*Emerging Trends with National Foundations*, Clemson University ADGRS Seminar (March 2015)  
*Introduction to Advanced Computing and the Palmetto Cluster*, Training Session, Clemson University (August 2014)  
*The Design and Analysis of Experiments that Use Computer Simulators*, Continuing Education Course, American Statistical Association (August 2014)  
*An Introduction to High-Performance Computing with R*, Tutorial, International Biometric Society (March 2014)  
*Nonparametric Bayesian Data Analysis*, Tutorial, International Biometric Society (March 2014)

## PUBLICATIONS

\* indicates student author

### Peer-Reviewed Manuscripts

1. **Brown, D. A.**, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E. (2014), “Incorporating spatial dependence into Bayesian multiple testing of statistical parametric maps in functional neuroimaging,” *NeuroImage*, 84, 97-112.

2. **Brown, D. A.**, Datta, G. S., and Lazar, N. A. (2017), “A Bayesian generalized CAR model for correlated signal detection,” *Statistica Sinica*, 27, 1125-1153.
3. **Brown, D. A.** and Atamturktur, S. (2018), “Nonparametric functional calibration of computer models,” *Statistica Sinica*, 28, 721-742.
4. Stevens, G. N., Atamturktur, S., **Brown, D. A.**, Williams, B. J., and Unal, C. (2018), “Statistical inference of empirical constituents in partitioned analysis from integral-effect experiments: An application to thermo-mechanical coupling,” *Engineering Computations*, 35, 672-691.
5. **Brown, D. A.**, Saibaba, A. K., and Vallélian, S. (2018), “Low-rank independence samplers in hierarchical Bayesian inverse problems,” *SIAM/ASA Journal on Uncertainty Quantification*, 6, 1076-1100.
6. Self, S. W.\*, McMahan, C. S., **Brown, D. A.**, Lund, R., Gettings, J., and Yabsley, M. (2018), “A large scale spatio-temporal binomial regression model for estimating seroprevalence trends,” *Environmetrics*, to appear, [arXiv:1803.11194](https://arxiv.org/abs/1803.11194).
7. Prabhu, S., Ehrett, C.\*, Javanbarg, M., **Brown, D. A.**, Lehmann, M., and Atamturktur, S. (2018), “Uncertainty quantification in fault tree analysis: Estimating business interruption due to seismic hazard,” submitted.
8. **Brown, D. A.**, McMahan, C. S., Shinohara, R. T., and Linn, K. L. (2018), “Bayesian spatial binary regression for label fusion in structural neuroimaging,” under revision, [arXiv:1710.10351](https://arxiv.org/abs/1710.10351).
9. **Brown, D. A.**, McMahan, C. S., and Watson, S. C.\* (2018), “Sampling strategies for fast updating of Gaussian Markov random fields,” under revision, [arXiv:1702.05518](https://arxiv.org/abs/1702.05518).
10. Yan, Z., **Brown, D. A.**, Nagatomi, J., and Mefford, O. T. (2018), “Synthesis and characterization of the thermoresponsive 4-arm poloxamines and construction of a corresponding empirical model of thermal gelation temperature,” under revision.
11. Saibaba, A. K., Bardsley, J., **Brown, D. A.**, and Alexanderian, A., “Efficient marginalization-based MCMC methods for hierarchical Bayesian inverse problems,” submitted.
12. Flynn, G. S., Chodora, E., **Brown, D. A.**, and Atamturktur, S., “A Bayesian inference-based approach to empirical enhancement of strongly-coupled constituent models,” submitted.

### Peer-Reviewed Proceedings

13. Atamturktur, S., and **Brown, D. A.** (2015), “State-aware calibration for inferring systematic bias in computer models of complex systems,” *NAFEMS World Congress 2015*, June 21-24, San Diego, CA, ISBN 978-1-910643-24-2.
14. Gallagher, E., **Brown, D. A.**, Brown, C. J., Frady, K. K., Bass, P., Matthews, M. A., Peters, T. T., Rabb, R. J., Solan, I., Welch, R. W., and Gramopadhye, A. K. (2018), “Identifying mathematical pathways to engineering in South Carolina,” *Proceedings of the 2018 American Society of Engineering Education Annual Conference and Exhibition*, June 24-27, Salt Lake City, UT.



15. Gallagher, E., Brown, C. J., **Brown, D. A.**, Frady, K., Marcanikova, M., Atamturktur, S., Ihekweazu, S., Matthews, M., Rabb, R., Solan, I., Welch, R., and Gramopadhye, A. (2018), "Statewide coalition: Supporting underrepresented populations in precalculus through organizational redesign toward engineering diversity (SC:SUPPORTED) year 1," *Proceedings of the 2018 American Society of Engineering Education Annual Conference and Exhibition*, June 24-27, Salt Lake City, UT.

### Book Chapters

16. Atamturktur, S., Stevens, G. N., and **Brown, D. A.** (2017), "Empirically improving model adequacy in scientific computing," in *Model Validation and Uncertainty Quantification, Volume 3: Proceedings of the 35th IMAC, A Conference and Exposition of Structural Dynamics 2017*, eds. Barthorpe, R., Platz, R., Lopez, I., Moaveni, B., and Papadimitriou, C., pp. 363-370.

### Letters and Discussions

17. **Brown, D. A.** and Lazar, N. A. (2018), Discussion of "Bayesian spatiotemporal modeling using hierarchical spatial priors, with applications to functional magnetic resonance imaging," by M. Bezener, J. Hughes, and G. Jones, *Bayesian Analysis*, to appear.

### Book Reviews

18. **Brown, D. A.**, (2017), Review of *Analysis of Neural Data*, by R. E. Kass, U. T. Eden, and E. N. Brown, *Biometrics*, 73, 710-713.

### Unreviewed Proceedings

19. Jaeger, A., **Brown, D. A.**, Seymour, L., and Beuckert, R. (2010), "Response of Canadian crop yields to climate change," in *Proceedings of the 2010 Joint Statistical Meetings*, Statistics and the Environment Section, Alexandria: American Statistical Association, 4395-4405.
20. **Brown, D. A.**, Lazar, N. A., and Datta, G. S. (2011), "Bayesian multiple testing under dependence with application to functional magnetic resonance imaging," in *Proceedings of the 2011 Joint Statistical Meetings*, Bayesian Statistical Science Section, Alexandria: American Statistical Association, 4708-4722.
21. Stevens, G. N., Atamturktur, S., and **Brown, D. A.** (2017), "Empirical training of constituent models: Defining meso-scale behavior in a multi-scale plasticity model," *IMAC XXXV*, Society for Experimental Mechanics, Jan. 30 - Feb. 2, Garden Grove, CA.

### Manuscripts in Preparation

22. Mokalled, S.\* , McMahan, C. S., **Brown, D. A.**, Tebbs, J. M., and Bilder, C. R., "Acknowledging the dilution effect in group testing data: A new approach"
23. Self, S. W.\* , McMahan, C. S., and **Brown, D. A.**, "A Bayesian multi-dimensional trend filter"

24. Ehrett, C.\*, **Brown, D. A.**, Chodora, E., Jiang, M., Kitchens, C., and Atamturktur, S., “Computer model calibration as a method of design”

## PRESENTATIONS

\* indicates presenting author

### Invited talks

1. **Brown, D. A.\***, “Some Statistical Problems in Uncertainty Quantification,” Department of Statistics, Indiana University, Bloomington, IN (October 2018).
2. **Brown, D. A.\***, McMahan, C. S., Shinohara, R. T., and Linn, K. L., “Bayesian Spatial Binary Regression for Label Fusion in Structural Neuroimaging,” Statistical Methods in Imaging Workshop, Philadelphia, PA (June 2018).
3. Saibaba, A. K.\*, Alexendarian, A., Bardsley, J. M., **Brown, D. A.**, and Vallelian, S., “Low Rank Independence Samplers in Bayesian Inverse Problems,” SIAM Conference on Uncertainty Quantification, Garden Grove, CA (April 2018).
4. **Brown, D. A.\*** and Atamturktur, S., “Nonparametric Functional Calibration of Computer Models,” Joint Statistical Meetings, Baltimore, MD (August 2017).
5. **Brown, D. A.\***, McMahan, C. S., Linn, K. L., and Shinohara, R. T., “Bayesian Spatial Binary Regression for Label Fusion in Structural Neuroimaging,” Eastern North American Region of the International Biometric Society (ENAR) Spring Meeting, Washington, D. C. (March 2017).
6. **Brown, D. A.\***, Saibaba, A. K., and Vallélian, S., “Computationally Efficient Markov Chain Monte Carlo Methods for Hierarchical Bayesian Inverse Problems,” Statistical Inverse Problems Workshop, Statistical and Applied Mathematical Sciences Institute (January 2017).
7. **Brown, D. A.\***, Datta, G. S., and Lazar, N. A., “A Bayesian Generalized CAR Model for Correlated Signal Detection,” Georgia Statistics Day, Georgia Institute of Technology, Atlanta, GA (October 2016).
8. **Brown, D. A.\***, Datta, G. S., and Lazar, N. A., “A Bayesian Generalized CAR Model for Correlated Signal Detection,” Joint Statistical Meetings, Chicago, IL (August 2016).
9. **Brown, D. A.\***, Saibaba, A., and Vallélian, S., “Efficient Markov Chain Monte Carlo Methods for Hierarchical Bayesian Inverse Problems,” Challenges in Computational Neuroscience Transition Workshop, Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC (May 2016).
10. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Joint Statistical Meetings, Seattle, WA (August 2015).
11. **Brown, D. A.\***, Datta, G. S., and Lazar, N. A., “A Bayesian Multiple Testing Model for Correlated Signal Detection,” South Carolina Statistics Consortium Meeting, Clemson University, Clemson, SC (November 2014).

12. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging”, Network of Greater Georgia Institutes of Neuroimaging and Statistics (NOGGINS) Workshop, University of Georgia, Athens, GA (April 2014).
13. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Department of Statistics, University of South Carolina, Columbia, SC (November 2013).
14. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Department of Biostatistics, University of Texas M.D. Anderson Cancer Center (February 2013).
15. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Department of Mathematical Sciences, Clemson University, Clemson, SC (January 2013).
16. **Brown, D. A.\***, Lazar, N. A., and Datta, G. S., “Bayesian Multiple Testing under Dependence with Application to Functional Magnetic Resonance Imaging,” Student seminar in Research, Evaluation, Measurement, and Statistics, Department of Educational Psychology, University of Georgia, Athens, GA (February 2012).

#### Seminar talks

17. **Brown, D. A.\***, Saibaba, A. K., and Vallélian, S., “Computationally Efficient Markov chain Monte Carlo Methods for Hierarchical Bayesian Inverse Problems,” Clemson University PDE Seminar, Clemson, SC (September 2016).
18. **Brown, D. A.\***, McMahan, C. S., and Linn, K. L., “Bayesian Spatial Binary Regression for Tumor Segmentation,” Johns Hopkins University/University of Pennsylvania Biostatistics Clinical Imaging Research Group (webinar), (May 2016).
19. **Brown, D. A.\***, “Basic Markov Chain Monte Carlo,” Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC (February 2016).
20. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Bayesian Correlated Signal Detection,” Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC (January 2016).
21. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Bayesian Correlated Signal Detection,” Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC (Webinar, October 2015).
22. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Department of Psychology, University of Georgia, Athens, GA (April 2013)

23. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Department of Statistics, University of Missouri, Columbia, MO (Webinar, December 2012).
24. **Brown, D. A.\***, Lazar, N. A., and Datta, G. S., “Bayesian Multiple Testing in the Presence of Dependence,” fMRI Research Group, University of Georgia, Athens, GA (January 2012).
25. **Brown, D. A.\***, Chow, S.-N., and Hui, Q., “Time-Optimal Control of Bioterror Response Logistics: The Case of Anthrax,” Research Experience for Undergraduates (REU) Mini-Conference, School of Mathematics, Georgia Institute of Technology, Atlanta, GA (August 2006).

### Contributed talks

26. Arp, J.\* , Jiang, M., Kitchens, C. L., Geddes, J., Atamturktur, S., and **Brown, A.**, “Analysis of structure-property relationships via finite element method to predict composite mechanical properties and a composition of homogenization methods,” AIChE Annual Meeting, Pittsburgh, PA (October 2018).
27. Gallagher, E.\* , **Brown, A.**, Brown, C., Frady, K. K., Marcanikova, M., Atamturktur, S., Ihekweazu, S. N., Matthews, M. A., Rabb, R. J., Roberts, R. H., Solan, I., Welch, R. W., and Gramopadhye, A. K., “Statewide Coalition: Supporting Underrepresented Populations in Precalculus Through Organizational Redesign Toward Engineering Diversity (SC:SUPPORTED) Results from Year One,” ASEE Annual Conference and Exposition, Salt Lake City, UT (June 2018).
28. Gallagher, E.\* , Brown, C., **Brown, A.**, Frady, K. K., Bass, P., Matthews, M. A., Peters, T. T., Rabb, R. J., Solan, I., Welch, R. W., and Gramopadhye, A. K., “Work In Progress: Identifying Mathematical Pathways to Engineering in South Carolina,” ASEE Annual Conference and Exposition, Salt Lake City, UT (June 2018).
29. **Brown, D. A.\*** and Atamturktur, S., “Nonparametric Functional Calibration of Computer Models,” SIAM Conference on Uncertainty Quantification, Garden Grove, CA (April 2018).
30. Atamturktur, S.\* , Stevens, G. N., and **Brown, D. A.**, “Empirically improving model adequacy in scientific computing,” *IMAC XXXV*, Society for Experimental Mechanics, Garden Grove, CA (February 2017).
31. Stevens, G. N.\* , Atamturktur, S., and **Brown, D. A.**, “Empirical training of constituent models: Defining meso-scale behavior in a multi-scale plasticity model,” *IMAC XXXV*, Society for Experimental Mechanics, Garden Grove, CA (February 2017).
32. Atamturktur, S.\* , **Brown, D. A.**, Stevens, G., Williams, B., and Unal, C., “State-aware calibration: Physical interpretation of systematic bias in computer simulations,” American Society of Mechanical Engineers Verification and Validation Symposium, Las Vegas, NV (May 2016).

33. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” Eastern North American Region of the International Biometric Society (ENAR) Spring Meeting, Baltimore, MD (March 2014).
34. **Brown, D. A.\***, Lazar, N. A., Datta, G. S., Jang, W., and McDowell, J. E., “Incorporating Spatial Dependence into Bayesian Multiple Testing of Statistical Parametric Maps in Functional Neuroimaging,” International Conference on Advances in Interdisciplinary Statistics and Combinatorics, University of North Carolina at Greensboro, Greensboro, NC (October 2012).
35. **Brown, D. A.\***, Lazar, N. A., and Datta, G. S., “Bayesian Multiple Testing under Dependence with Application to Functional Magnetic Resonance Imaging,” Network of Greater Georgia Institutes of Neuroimaging and Statistics (NOGGINS) Workshop, University of Georgia, Athens, GA (April 2012).
36. Henderson, M.\*, **Brown, D. A.**, Wirth, R., Henderson, T., and Osborn, K., “Impact of Questionnaire Length on Quality of Responses,” American Academy of Optometry Meeting, Boston, MA (October 2011).
37. **Brown, D. A.\***, Lazar, N. A., and Datta, G. S., “Bayesian Multiple Testing under Dependence with Application to Functional Magnetic Resonance Imaging,” Joint Statistical Meeting, Miami, FL (August 2011).

### Contributed Posters

38. Self, S. W.\*, McMahan, C. S., **Brown, D. A.**, Lund, R., Gettings, J., and Yabsley, M., “A large scale spatio-temporal binomial regression model for estimating seroprevalence trends,” University of Georgia / Clemson University Joint Seminar, Athens, GA (March 2018).
39. Ehrett, C.\*, **Brown, A.**, Atamturktur, S., Kitchens, C., Jiang, M., Arp, C., and Chodora, E., “Computer model calibration for design, with an application to wind turbine blades,” University of Georgia / Clemson University Joint Seminar, Athens, GA (March 2018).
40. **Brown, D. A.\*** and Atamturktur, S., “Nonparametric functional calibration of computer models,” Institute of Mathematical Statistics New Researchers Conference, Madison, WI (July 2016).
41. **Brown, D. A.\***, Datta, G. S., and Lazar, N. A., “A Bayesian Multiple Testing Model for Correlated Signal Detection,” Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Wilmington, NC (June 2015).
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