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Education

- **University of South Carolina (2008-2012)**-Columbia, SC
Ph.D. in Statistics
 - GPA: 4.0/4.0
 - Dissertation advisor: Joshua M. Tebbs
- **Western Kentucky University (2006-2008)**-Bowling Green, KY
M.S. in Mathematics
 - GPA: 4.0/4.0
 - Thesis advisor: Ferhan Atici
- **Austin Peay State University (1999-2006)**-Clarksville, TN
B.S. in Mathematics
 - GPA: 3.8/4.0
 - Graduated Magna Cum Laude

Professional Experience

- **Clemson University, School of Mathematical and Statistical Sciences**-Clemson, SC
Associate Professor: 2018-present
- **BINUS University, Department of Mathematical Statistics**-Jakarta, Indonesia
Visiting Professor: 2017-present
- **BioRealm**-Los Angeles, CA
Consultant: 2016-present
- **Clemson University, Department of Mathematical Sciences**-Clemson, SC
Associate Professor: 2017-2018
- **Clemson University, Department of Mathematical Sciences**-Clemson, SC
Assistant Professor: 2012-2017
- **University of South Carolina, Department of Statistics**-Columbia, SC
Research Assistant: 2009-2012
- **University of South Carolina, Department of Statistics**-Columbia, SC
Teaching Assistant: 2008-2009, Summer 2010, and Summer 2011
- **Western Kentucky University, Department of Mathematics**-Bowling Green, KY
Teaching Assistant: 2006-2008

Current Research Interests

Categorical data analysis, group testing, survival data analysis, nonparametric methods, measurement error models, spatio-temporal modeling, statistical computing, Bayesian parametric/nonparametric estimation, high dimensional regression techniques, machine learning, epidemiology/public health, and biomedical applications.

Refereed Publications

- Karambizi, N.[†], **McMahan, C.**, and Temesvari, L. (2020+). Global estimated disability-adjusted life-years (DALYs) of diarrhoeal diseases: A systematic analysis of data from 28 years of the Global Burden of Disease Study. *Lancet*, submitted.
- Rennert, L., **McMahan, C.**, Shi, L., and Kalbaugh, C. (2020+). Reopening universities during the COVID-19 pandemic: A testing strategy to minimize active cases and delay outbreaks. *BMJ Open*, submitted.
- Bilder, C., Tebbs, J., and **McMahan, C.** (2020+). Informative array testing with multiplex assays. *Statistics in Medicine*, submitted.
- Mokalled, S.*^{*}, **McMahan, C.**, Tebbs, J., Brown, A., and Bilder, C. (2020+). Incorporating the dilution effect in group testing regression. *Statistics in Medicine*, submitted. **Winner of ENAR Distinguished Student Paper Award. Previously titled: Acknowledging the Dilution Effect in Group Testing Regression: A New Approach**
- Watson Self, S.*^{*}, **McMahan, C.**, Brown, A., Nordone, S., Yabsley, M., and Gettings, J.[‡] (2020+). Regional trends of *Borrelia burgdorferi* and *Anaplasma* spp. seroprevalence in domestic dogs: contiguous United States 2013-2019. *Frontiers in Veterinary Science*, in revision.
- Liu, Y., Lu, M., and **McMahan, C.** (2020+). A penalized likelihood approach for efficiently estimating a partially linear additive transformation model with current status data. *Electronic Journal of Statistics*, in revision.
- Stubbs, C., **McMahan, C.**, Seegmiller, K.[†], Spence, T.[†], Cook, D., and Robertson, R. (2020+). Integrative puncture score: Force-displacement weighted rind penetration tests improve stalk lodging resistance estimations in maize. *Plant Methods*, in revision.
- Watson Self, S.*^{*}, **McMahan, C.**, and Russell, B. (2020+). Identifying meteorological drivers of PM_{2.5} levels via a Bayesian spatial quantile regression. *Environmetrics*, in revision.
- Dyckman, C., **McMahan, C.**, White, D., Lauria, M., Fouch, N.[†], Overby, A.[†], Ogletree, S.[†], and Baldwin, R. (2020+). Challenging inherent assumptions: Patterns in the land use typologies associated with conservation easement parcels and their implications for biodiversity conservation policies. *PLoS*, in revision.
- Brown, A., **McMahan, C.**, Shinohara, R., and Linn, K. (2020+). Bayesian spatial binary regression for label fusion in structural neuroimaging. *Journal of the American Statistical Association*, in revision.
- Stubbs, C., Seegmiller, K.[†], **McMahan, C.**, Sekhon, R. and Robertson, D. (2020+). Diverse maize hybrids are structurally inefficient at resisting wind induced bending forces that cause stalk lodging. *Plant Methods*, in press.
- Liu, Y.*^{*}, **McMahan, C.**, Gallgher, C., Tebbs, J., and Bilder, C. (2020+). Bayesian generalized additive regression for group testing data. *Biostatistics*, in press.

- Joyner, C.*, **McMahan, C.**, Tebbs, J., and Bilder, C. (2020+). From mixed-effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. *Biometrics*, in press.
- Brown, D., **McMahan, C.**, and Watson, S.* (2020+). Sampling strategies for fast updating of Gaussian Markov random fields. *The American Statistician*, in press.
- Hou, P.†, Tebbs, J., Wang, D., **McMahan, C.**, and Bilder, C. (2020+). Array testing with multiplex assays. *Biostatistics*, **21**, 417-431.
- Gettings, J.‡, Watson Self, S.*, **McMahan, C.**, Brown, A., Nordone, S., and Yabsley, M. (2020). Local and regional temporal trends (2013–2019) of canine *Ehrlichia* spp. seroprevalence in the USA. *Parasites and Vectors*, **12**.
- Sekhon, R., Joyner, C.*, Ackerman, A.†, **McMahan, C.**, Cook, D., and Robertson, D. (2020). Stalk bending strength is strongly associated with maize stalk lodging incidence across multiple Environments. *Field Crops Research*, **249**.
- Joyner, C.*, **McMahan, C.**, Baurley, J., and Pardamean, B. (2020). A two-phase Bayesian methodology for the analysis of binary phenotypes in genome-wide association studies. *Biometrical Journal*, **62**, 191-201.
- Withana Gamage, P.*, Chaudhari, M.†, **McMahan, C.**, and Kosorok, M. (2020). An extended proportional hazards model for interval-censored data subject to instantaneous failures. *Lifetime Data Analysis*, **26**, 158-182.
- Watson Self, S.*, Liu, Y.*, Nordone, S., Yabsley, M., Stockdale Walde, H., Lund R. Bowman, D., Carpenter, C., **McMahan, C.**, and Gettings, J.‡ (2019). Canine vector-borne disease: mapping and the accuracy of forecasting using big data from the veterinary community. *Animal Health Research Reviews*, **20**, 47-60.
- Hitt, B.†, Bilder, C., Tebbs, J., and **McMahan, C.** (2019). The objective function controversy for group testing: Much ado about nothing? *Statistics in Medicine*, **38**, 4912-4923.
- Watson Self, S.*, Pulaski, C., **McMahan, C.**, Brown, A., Yabsley, M., and Gettings, J.‡ (2019). Regional and local temporal trends in the prevalence of canine heartworm infection: 2012-2018, *Parasites and Vectors*, **12**, 380.
- Liu, Y.*, Nordone, S., Yabsley, M., Meshnick, S., Lund, R., **McMahan, C.**, and Gettings, J.‡ (2019). Quantifying the relationship between human Lyme disease and *Borrelia burgdorferi* exposure in domestic dogs. *Geospatial Health*, **14**.
- Bilder, C., Tebbs, J., and **McMahan, C.** (2019). Informative group testing for multiplex assays. *Biometrics*, **75**, 278-288.
- Gregory, K., Wang, D., and **McMahan, C.** (2019). Adaptive elastic net regression with group testing data. *Biometrics*, **75**, 13-23.
- Yang, T.*, Gallagher, C., and **McMahan, C.** (2019). A robust regression methodology via M-estimation. *Communications in Statistics*, **48**, 1092-1107.
- Withana Gamage, P.*, **McMahan, C.**, Wang, L., and Tu, W. (2018). A Gamma-frailty proportional hazards model for bivariate interval-censored data. *Computational Statistics and Data Analysis*, **128**, 354-366.
- Lu, M. and **McMahan, C.** (2018). A partially linear proportional hazards model for current status data. *Biometrics*, **74**, 1240-1249.

- Watson Self, S.*, **McMahan, C.**, Brown, D., Lund, R., Gettings, J.‡, and Yabsley, M. (2018). A large scale spatio-temporal binomial regression model for estimating seroprevalence trends. *Environmetrics*, **29**, e2538.
- Chaudhari, M.†, Kim, E., Withana Gamage, P.*, **McMahan, C.**, and Kosorok, M. (2018). Study design with staggered sampling times for evaluating sustained unresponsiveness to peanut sublingual immunotherapy. *Statistics in Medicine*, **37**, 3944-3958.
- Baurley, J., **McMahan, C.**, Ervin, C., Pardamean, B., and Bergen, A. (2018). Biosignature discovery for substance use disorders using statistical learning. *Trends in Molecular Medicine*, **24**, 221-235.
- Wang, D.*, **McMahan, C.**, Tebbs, J., and Bilder C. (2018). Group testing case identification with biomarker information. *Computational Statistics and Data Analysis*, **122**, 156-166.
- **McMahan, C.**, Baurley, J. Bridges, W., Joyner, C.*, Fitra Kacamarga, M., Lund, R., Pardamean, C., and Paradmean, B. (2017). A Bayesian hierarchical model for identifying significant polygenic effects while controlling for confounding and repeated measures. *Statistical Applications in Genetics and Molecular Biology*, **16**, 407-419.
- Warasi, S.†, **McMahan, C.**, Tebbs, J., and Bilder, C. (2017). Group testing regression models with dilution submodels. *Statistics in Medicine*, **36**, 4860-4872.
- **McMahan, C.**, Tebbs, J., Hanson, T., and Bilder C. (2017). Bayesian regression models for group testing data. *Biometrics*, **73**, 1443-1452.
- Liu, Y.*, Watson, S.*, Lund, R., Gettings, J.‡, Nordone, S., Yabsley, M. and **McMahan, C.** (2017). A Bayesian spatio-temporal model for forecasting Anaplasma species seroprevalence in domestic dogs within the contiguous United States. *PLoS*, **12**.
- Russell, B., Wang, D., and **McMahan, C.** (2017). Spatially modeling the effects of meteorological drivers of PM_{2.5} in the Eastern United States via a local linear penalized quantile regression estimator, *Environmetrics*, **28**.
- Liu, Y.*, **McMahan, C.**, and Gallagher, C. (2017). A general regression framework for the regression analysis of pooled biomarker assessments. *Statistics in Medicine*, **36**, 2363-2377. **Winner of ENAR Distinguished Student Paper Award.**
- Hou, P.†, Tebbs, J., Bilder, C., and **McMahan, C.** (2017). Hierarchical group testing for multiple infections. *Biometrics*, **73**, 656-665. **Winner of ASA Outstanding Statistical Application Award and Best Paper in Biometrics by an IBS Member.**
- Watson, S.*, Liu, Y.*, Lund, R., Gettings, J.‡, Nordone, S., **McMahan, C.**, and Yabsley, M. (2017). A Bayesian spatio-temporal model for forecasting the prevalence of antibodies to Borrelia burgdorferi, causative agent of lyme disease, in domestic dogs within the contiguous United States. *PLoS*, **12**.
- Liu, Y.*, Lund, R., Nordone, S., Yabsley, M., and **McMahan, C.** (2017). A Bayesian spatio-temporal model for forecasting the prevalence of antibodies to Ehrlichia species in domestic dogs within the contiguous United States. *Parasites and Vectors*, **10**, 138.
- Bowman, D., Liu, Y.*, **McMahan, C.**, Nordone, S. Yabsley, M., and Lund, R. (2016). Forecasting United States heartworm (dirofilaria immitis) prevalence in dogs. *Parasites and Vectors*, **9**, 540.

- Sapp, S.[†], Weinstein, S., **McMahan, C.**, and Yabsley, M. (2016). Variable infection dynamics in four peromyscus species following experimental inoculation with baylisascaris procyonis. *Journal of Parasitology*, **102**, 538-544.
- McDonald, J.*, Gerard, P., **McMahan, C.**, and Schucany, W. (2016). Exact-permutation based sign tests for clustered binary data via weighted and unweighted test statistics. *Journal of Agricultural Biological and Environmental Statistics*, **21**, 698-712.
- Warasi, S.[†], Tebbs, J., **McMahan, C.**, and Bilder, C. (2016). Estimating the prevalence of multiple diseases from two-stage hierarchical pooling. *Statistics in Medicine*, **35**, 3851-3864.
- **McMahan, C.**, McLain, A., Gallagher, C., and Schisterman, E. (2016). Estimating covariate-adjusted measures of diagnostic accuracy based on pooled biomarker assessments. *Biometrical Journal*, **58**, 944-961.
- **McMahan, C.**, Wang, D.[†], Beall, M., Bowman, D., Little, S., Pithuia, P., Sharp, J., Stitch, R., Yabsley, M., and Lund, R. (2016). Factors associated with Anaplasma spp. seroprevalence among dogs in the United States. *Parasites and Vectors*, **9**, 169.
- Wang, L., **McMahan, C.**, Hudgens, M., and Qureshi, Z. (2016). A flexible, computationally efficient method for fitting the proportional hazards model to interval-censored data. *Biometrics*, **1**, 222-231.
- **McMahan, C.**, Tebbs, J., and Bilder, C. (2016). Invited rejoinder to “A note on the evaluation of group testing algorithms in the presence of misclassification.” *Biometrics*, **72**, 303-304.
- Wang, D.*, **McMahan, C.**, and Gallagher, C. (2015). A general regression framework for group testing data that incorporates pool dilution effects. *Statistics in Medicine*, **27**, 3606-3621.
- Wang, N.[†], Wang, L., and **McMahan, C.** (2015). Regression analysis of bivariate current status data under the Gamma-frailty proportional hazards model using the EM algorithm. *Computational Statistics and Data Analysis*, **83**, 140-150.
- Wang, D.*, **McMahan, C.**, Gallagher, C., and Kulasekera, K. (2014). Semiparametric group testing regression models. *Biometrika*, **101**, 587-598.
- Tebbs, J., **McMahan, C.**, and Bilder, C. (2013). Two-stage hierarchical group testing for multiple infections with application to the Infertility Prevention Project. *Biometrics*, **69**, 1064-1073. **Winner of ASA Outstanding Statistical Application Award.**
- **McMahan, C.**, Wang, L., and Tebbs, J. (2013). Regression analysis of current status data using the EM algorithm. *Statistics in Medicine*, **32**, 4954-4966.
- **McMahan, C.**, Tebbs, J., and Bilder, C. (2013). Regression models for group testing data with pool dilution effects. *Biostatistics*, **14**, 284-298.
- **McMahan, C.**, Tebbs, J., and Bilder, C. (2012). Two-dimensional informative array testing. *Biometrics*, **68**, 793-804.
- **McMahan, C.**, Tebbs, J., and Bilder, C. (2012). Informative Dorfman screening. *Biometrics*, **68**, 287-296. **Winner of ENAR Distinguished Student Paper Award.**
- Biles, D. and **McMahan, C.** (2010). Brownian motion on time scales. *Global Journal of Pure and Applied Mathematics*, **6**, 197-206.

- Atici, F. and **McMahan, C.** (2009). A comparison in the theory of calculus of variations on time scales with an application to the Ramsey model. *Nonlinear Dynamics and System Theory*, **9**, 1-10.

Other Publications

- Bilder, C., Tebbs, J., and **McMahan, C.** (2020). Tests in short supply? Try group testing. *Significance*, **17**, 15-16.
- Bilder, C., Tebbs, J., and **McMahan, C.** (2019). Cost-effective surveillance for infectious diseases through specimen pooling and multiplex assays. *Online Journal of Public Health Informatics* **11**.

Software

- Mokalled, S.*, **McMahan, C.**, Brown, A., Tebbs, J., and Bilder, C. (2020+). Group-Testing: Repository for “Acknowledging the dilution effect in group testing regression: A new approach.” <https://github.com/stefani1011/Group-Testing->
- Joyner C.*, **McMahan C.**, Tebbs J., and Bilder C. (2019). JMTB: Repository for “From mixed effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data.” <https://github.com/ChrisBilder/JMTB>
- Liu Y.*, **McMahan C.**, Tebbs J., Gallagher C., and Bilder C. (2019). GAM: Repository for “Generalized additive regression for group testing data.” <https://github.com/yanliu5/gam>
- Gregory, K., Wang, D., and **McMahan, C.** (2018). aenetgt: Repository for “Adaptive elastic net for group testing.” <https://github.com/gregorkb/aenetgt/>
- **McMahan C.** and Wang L. (2014). ICsurv: For the semiparametric regression analysis of interval-censored data. <https://cran.r-project.org/web/packages/ICsurv/index.html>

Note: Students and postdoctoral scholars under my direct supervision are denoted by * and ‡, respectively, and other students by †.

Invited Seminars

- JUST GROUP IT. Group testing for estimation. Joint Statistical Meetings (Introductory Overview Lecture), Virtual Conference (August, 2020).
- JUST GROUP IT. Group testing for identification. Joint Statistical Meetings (Introductory Overview Lecture), Virtual Conference (August, 2020). Oral presentation by Christopher Bilder.
- Expert insights: Pooled testing’s promise for the rapid expansion of COVID-19 testing. Webinar, Lighthouse Lab Services, Virtual Presentation (July, 2020)
- Increasing testing capacity via pool testing: COVID-19 and beyond. Rapid Innovation Taskforce, Prisma Health, Virtual Presentation (June, 2020).
- From mixed effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. Computational and Methodological Statistics, London, UK (December, 2019).
- Bayesian generalized additive regression for group testing data. INFORMS, Seattle, WA (October, 2019).

- To pool or not to pool, that is the question. Department of Mathematics and Statistics Colloquia at Radford University, Radford, VA (October, 2019).
- From mixed effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. Department of Mathematics and Statistics Colloquia at James Madison University, Harrisburg, VA (September, 2019).
- To pool or not to pool. Science on Tap, Clemson, SC (June, 2019).
- A Bayesian spatio-temporal binomial regression model for estimating Lyme disease trends. Data science workshop, Clemson, SC (January, 2019).
- Bayesian generalized additive regression for group testing data. South Carolina Chapter of the American Statistical Association fall meeting, Clemson, SC (October, 2018).
- A Bayesian hierarchical mixed model for identifying significant polygenic effects while controlling for confounding and repeated measures. Department of Genetics and Biochemistry Seminar at Clemson University, Clemson, SC (September, 2018).
- A flexible, computationally efficient method for fitting the proportional hazards model to interval-censored data. Hasanuddin University, Makassar, Indonesia (May, 2017).
- Forecasting various companion vector-borne diseases within the conterminous United States. Hasanuddin University, Makassar, Indonesia (May, 2017).
- A Bayesian Hierarchical Mixed Model for Identifying Significant Polygenic Effects while Controlling for Confounding and Repeated Measures. BINUS University, Jakarta, Indonesia (May, 2017).
- Forecasting various companion vector-borne diseases within the conterminous United States. BINUS University, Jakarta, Indonesia (May, 2017).
- Covariate adjusted measures of diagnostic accuracy based on pooled biomarkers. Latent Variables 2016 Conference, Columbia, SC (October, 2016).
- Assessing the relationship between SNPs and yield in various rice varieties. Jakarta, Indonesia (May, 2016).
- Forecasting various companion vector-borne diseases within the conterminous United States. Big Data Tsunami at the Interface of Statistics, Environmental Sciences and Beyond, Banff, Canada (March, 2016).
- A flexible, computationally efficient method for fitting the proportional hazards model to interval-censored data. The 4th Workshop on Biostatistics and Bioinformatics, Atlanta, GA (May, 2015).
- Regression analysis of pooled biomarker data. IASSL, Colombo, Sri Lanka (December, 2014).
- Estimating covariate adjusted measures of diagnostic accuracy based on pooled biomarker assessments. Department of Epidemiology and Biostatistics Forum at the University of South Carolina, Columbia, SC (October, 2014).
- Two-stage hierarchical group testing for multiple infections with application to the Infertility Prevention Project. Department of Statistics Seminar at the University of Georgia, Athens, GA (September, 2013).
- Topics in heterogeneous group testing.
 - Department of Statistics Seminar at Southern Methodist University, Dallas, TX (February, 2012).

- Department of Statistics Seminar at Kansas State University, Manhattan, KS (February, 2012).
- Department of Mathematical Sciences Seminar at Clemson University, Clemson, SC (February, 2012).
- Department of Statistics Seminar at the University of Missouri, Columbia, MO (February, 2012).
- Department of Statistics Seminar at Baylor University, Waco, TX (February, 2012).
- Department of Statistics Seminar at Carnegie Mellon University, Pittsburgh, PA (January, 2012).
- Department of Epidemiology and Biostatistics Seminar at the University of South Carolina, Columbia, SC (January, 2012).
- Department of Mathematics and Statistics Seminar at Southern Illinois University, Edwardsville, IL (January, 2012).
- Department of Mathematics and Statistics Seminar at Williams College, Williamstown, MA (January, 2012).
- Department of Mathematics and Statistics Seminar at the University of Massachusetts, Amherst, MA (December, 2011).

Research Presentations

- Identifying meteorological factors associated with high PM_{2.5} levels via a Bayesian spatial quantile regression. Joint Statistical Meetings, Virtual Conference (August, 2020). Oral presentation by Stella Coker Watson Self.
- To pool or not to pool? A web-based Shiny app to help laboratories make the specimen pooling decision. 2020 STD Prevention Conference, Virtual Conference (September, 2020). Poster presentation by Christopher Bilder.
- Identifying meteorological factors associated with high PM_{2.5} levels via a Bayesian spatial quantile regression. Joint Statistical Meetings, Virtual Conference (August, 2020). Oral presentation by Stella Self.
- Buprenorphine Dose and Physician, Clinic and Patient Engagement in the Treatment of Opioid Dependence. CPDD 2020 Virtual Annual Meeting (June, 2020). Oral presentation by Andrew Bergen.
- A Shiny app for making the specimen pooling decision. useR! 2020, St. Louis, MO (July 2020). Oral presentation by Christopher Bilder. Peer reviewed. (Conference cancelled)
- Informative array testing with multiplex assays. Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistics and Data Science, Overland Park, KS (April, 2020). Invited presentation by Christopher Bilder.
- Buprenorphine MOUD: Identification and ranking of four treatment factors in six trials. The ASAM 51st Annual Conference - Innovations in Addiction Medicine and Science, Denver, CO (April, 2020). Poster presentation by Andrew Bergen.
- A Functional Generalized Linear Mixed Model for Estimating Dose Response in Longitudinal Studies. ENAR Spring Meetings, Nashville, TN (March 2020). Poster presentation by Madeleine St. Ville.

- Penalized Semiparametric Additive Modeling for Group Testing Data. ENAR Spring Meetings, Nashville, TN (March 2020). Oral presentation by Karl Gregory.
- Assessing Meteorological Drivers of Air Pollution in the Eastern United States via a Bayesian Quantile Regression Model with Spatially Varying Coefficients. ENAR Spring Meetings, Nashville, TN (March 2020). Oral presentation by Stella Self.
- Acknowledging the Dilution Effect in Group Testing Regression: A New Approach. ENAR Spring Meetings, Nashville, TN (March 2020). Oral presentation by Stefani Mokalled. **Winner of ENAR Distinguished Student Paper Award.**
- Flexible, Unified Approach for Analyzing Arbitrarily-Censored and/or Left-Truncated Interval-Censored Data. ENAR Spring Meetings, Nashville, TN (March 2020). Oral presentation by Prabhashi Withana Gamage.
- An Alternative to the Logistic GLMM with Normal Random Effects for Estimating Dose Response in the Presence of Extreme Between Subject Heterogeneity. ENAR Spring Meetings, Nashville, TN (March 2020). Oral presentation by Joe Bible.
- A GWAS analysis to identify genotypes corresponding to delayed senescence in maize. Joint Statistical Meetings, Denver, CO (August, 2019). Poster presentation by Brandon Lumsden.
- Bayesian spatial binary regression for label fusion in structural neuroimaging. Joint Statistical Meetings, Denver, CO (August, 2019). Invited oral presentation by Andrew Brown.
- Forecasting vector-borne disease in the United States. Joint Statistical Meetings, Denver, CO (August, 2019). Poster presentation by Madeleine St. Ville.
- Strategies for pooling in array testing configurations with multiplex assays. Joint Statistical Meetings, Denver, CO (August, 2019). Poster presentation by Christopher Bilder.
- A user-friendly Shiny web application for choosing pool sizes when testing pooled specimens. APHL, St. Louis, MO (June, 2019). Poster presentation by Christopher Bilder.
- Bayesian spatial binary regression for label fusion in structural neuroimaging. International Chinese Statistical Association, Raleigh, NC (June, 2019). Invited oral presentation by Andrew Brown.
- A Proportional Hazards Model for Interval-Censored Data Subject to Instantaneous Failures. ENAR Spring Meetings, Philadelphia PA (March, 2019). Presentation by Prabhashi Withana Gamage.
- Generalized Additive Regression for Group Testing Data. ENAR Spring Meetings, Philadelphia PA (March, 2019). Presentation by Joshua Tebbs.
- A novel platform provides improved estimation of stalk lodging resistance in maize. Annual Maize Genetics Conference, St. Louis, MO (March, 2019). Presentation by Rajandeep Singh Sekhon.
- Ticks and tick-borne diseases: tracking an invasive tick and modeling efforts for tick-borne pathogens. Shelter Medicine Symposium, Athens, GA (February, 2019). Presentation by Michael Yabsley.
- Bayesian spatial binary regression for label fusion in structural neuroimaging. Department of Mathematics, Statistics, and Computer Science, Marquette University, Milwaukee, WI (December, 2018). Invited oral presentation by Andrew Brown.

- Quantifying the relationship between human Lyme disease and *Borrelia burgdorferi* exposure in domestic dogs. Georgia Veterinary Medical Association One Health Symposium, Athens, GA (December, 2018). Presentation by Jenna Gettings.
- The rising seroprevalence of *Borrelia burgdorferi* in domestic dogs. Georgia Veterinary Medical Association One Health Symposium, Athens, GA (December, 2018). Presentation by Jenna Gettings.
- Companion Animal Parasite Council: One Health in Practice. Georgia Veterinary Medical Association One Health Symposium, Athens, GA (December, 2018). Presentation by Michael Yabsley.
- Bayesian spatial binary regression for label fusion in structural neuroimaging. Statistical Methods in Imaging Workshop, Philadelphia, PA (June 2018). Oral presentation by Andrew Brown.
- A Bayesian multidimensional trend filter. Georgia Statistics Day, Athens, GA (October, 2018). Poster presentation by Stella Self. **Awarded Outstanding Student Poster Award.**
- A new approach to regression modeling in group testing that accounts for the dilution effect. Georgia Statistics Day, Athens, GA (October, 2018). Poster presentation by Stefani Mokalled.
- Bayesian mixed effects model with variable selection for group testing data. Georgia Statistics Day, Athens, GA (October, 2018). Poster presentation by Chase Joyner.
- A Bayesian multidimensional trend filter. South Carolina Chapter of the American Statistical Association fall meeting, Clemson, SC (October, 2018). Poster presentation by Stella Self.
- A new approach to regression modeling in group testing that accounts for the dilution effect. South Carolina Chapter of the American Statistical Association fall meeting, Clemson, SC (October, 2018). Poster presentation by Stefani Mokalled.
- From mixed effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. South Carolina Chapter of the American Statistical Association fall meeting, Clemson, SC (October, 2018). Poster presentation by Chase Joyner.
- Pooling for the simultaneous detection of chlamydia trachomatis and neisseria gonorrhoeae is cost effective and accurate. STD Prevention Conference, Washington DC (August, 2018). Oral presentation by Joshua Tebbs.
- Optimal testing configurations for group testing. Joint Statistical Meetings, Vancouver, Canada (August, 2018). Oral presentation by Brianna Hitt.
- Hierarchical group testing for multiple infections. International Biometric Conference, Barcelona (July, 2018). Oral presentation by Joshua Tebbs. **Awarded Best Paper in Biometrics by an IBS Member.**
- A Bayesian Generalized Additive Model for Group Testing Data. ENAR Spring Meetings, Atlanta GA (March, 2018).
- Infectious Disease Detection Using Specimen Pooling with Multiplex Assays when Risk-Factor Information is Present. ENAR Spring Meetings, Atlanta GA (March, 2018). Poster presentation by Christopher Bilder.
- A Bayesian GLMM for Modeling Spatially Varying Trends in Disease Prevalence with an Application to Lyme Disease. ENAR Spring Meetings, Atlanta GA (March, 2018). Poster presentation by Stella C. Watson.

- A General Multivariate Bayesian Regression Model for Group Testing Data. ENAR Spring Meetings, Atlanta GA (March, 2018). Oral presentation by Paul Cubre.
- Penalized Estimation of Generalized Additive Cox Model for Interval-Censored Data. ENAR Spring Meetings, Atlanta GA (March, 2018). Oral presentation by Yan Liu.
- From Mixed-Effects Modeling to Spike and Slab Variable Selection: A Bayesian Regression Model for Group Testing Data. ENAR Spring Meetings, Atlanta GA (March, 2018). Oral presentation by Chase N. Joyner.
- Acknowledging the Dilution Effect in Group Testing Regression: A New Approach. ENAR Spring Meetings, Atlanta GA (March, 2018). Oral presentation by Stefani Mokalled.
- A Gamma-Frailty Proportional Hazards Model for Bivariate Interval-Censored Data. ENAR Spring Meetings, Atlanta GA (March, 2018). Oral presentation by Prabhathi Withana Gamage.
- A Bayesian spatio-temporal model for identifying regions experiencing increasing disease risk. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2018). Oral presentation by Stella Watson. **Awarded best presentation.**
- Informative group testing for multiplex assays. Royal Statistical Society International Conference, Glasgow (September, 2017). Oral presentation by Christopher Bilder.
- Informative group testing for multiplex assays. Joint Conference on Biometrics and Biopharmaceutical Statistics, Vienna (August, 2017). Oral presentation by Christopher Bilder.
- Informative group testing for multiplex assays. Joint Statistical Meetings, Baltimore (August, 2017). Oral presentation by Christopher Bilder.
- A proportional hazards model for interval-censored data subject to instantaneous failures. SRCOS Summer Research Conference Program, Jekyll Island, GA (June, 2017). Poster presentation with Prabhathi Withana Gamage.
- A Bayesian hierarchical model for identifying significant polygenic effects while controlling for confounding and repeated measures. Applied Statistics in Agriculture Conference, Manhattan, KS (April, 2017).
- Bayesian Regression of Group Testing Data. Applied Statistics in Agriculture Conference, Manhattan, KS (April, 2017). Oral presentation by Joshua Tebbs.
- A proportional hazards model for interval-censored data subject to instantaneous failures. 2nd Annual Graduate Research and Discovery Symposium (GRADS), Clemson, SC (April, 2017). Poster presentation with Prabhathi Withana Gamage.
- Bayesian spatial binary regression for label fusion in structural neuroimaging. ENAR Spring Meetings, Washington DC (March, 2017). Invited oral presentation by D. Andrew Brown.
- Bayesian Regression of Group Testing Data. ENAR Spring Meetings, Washington DC (March, 2017).
- Optimal pool sizes for group testing. ENAR Spring Meetings, Washington DC (March, 2017). Poster presentation with Christopher Bilder.
- Using hierarchical group testing to estimate the prevalence of multiple diseases. ENAR Spring Meetings, Washington DC (March, 2017). Poster presentation with Md Shamim Warasi.

- A general framework for the regression analysis of pooled biomarker assessments. ENAR Spring Meetings, Washington DC (March, 2017). Oral presentation by Yan Liu. **Awarded the ENAR Distinguished Student Paper Award.**
- Back-end disease screening using information theory. ENAR Spring Meetings, Washington DC (March, 2017). Oral presentation by Xichen Mou.
- A proportional hazards model for interval-censored subject to instantaneous failures. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2017). Oral presentation by Prabhashi Withana Gamage. **Awarded best presentation.**
- A Bayesian spatio-temporal model for forecasting the prevalence of antibodies to *Borrelia burgdorferi*, causative agent of lyme disease, in domestic dogs within the contiguous United States. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2017). Oral presentation by Stella Watson.
- Forecasting the annual prevalence of some US canine diseases. Department of Biostatistics and Bioinformatics Seminar at Emory University, Atlanta, GA (September, 2016). Oral presentation by Robert Lund.
- Differential baylisascaris procyonis infection dynamics and survival in four species of deer mice (*peromyscus* spp.). American Society of Parasitologists Annual Meeting, Edmonton, Alberta (July, 2016). Oral presentation by Sarah Sapp.
- Objective functions for group testing. International Biometric Conference, Victoria, Canada (July, 2016). Oral presentation by Christopher Bilder.
- US canine parasite disease mapping. Journal Club Meeting with the Eukaryotic Pathogens Innovation Center (EPIC), Clemson, SC (April, 2016). Oral presentation by Robert Lund.
- Robust regression under asymmetric exponential power distribution. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2016). Oral presentation by Tao Yang. **Awarded best presentation.**
- A general framework for the regression analysis of pooled biomarker assessments. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2016). Oral presentation by Yan Liu.
- Regression analysis of bivariate interval-censored data under the gamma-frailty proportional hazards model using the EM algorithm. South Carolina Chapter of the American Statistical Association Palmetto Symposium, Columbia, SC (March, 2016). Oral presentation by Prabhashi Wickramasingha.
- Bayesian Spatial Binary Regression for Tumor Segmentation, Johns Hopkins University/University of Pennsylvania Biostatistics Clinical Imaging Research Group (webinar), (May, 2016). Oral presentation by Andrew Brown.
- Case identification and regression estimation in group testing when dilution effect is present. Joint Statistical Meetings, Seattle, WA (August, 2015). Oral presentation by Dewei Wang.
- Group testing regression with dilution submodels. Joint Statistical Meetings, Seattle, WA (August, 2015). Oral presentation by Md S. Warasi.
- Differential infection dynamics and susceptibility to *Baylisascaris procyonis* in *Peromyscus* species. 64th International Conference of the Wildlife Disease Association 2015, Queensland, Australia (July, 2015). Poster presentation with Sarah Sapp.

- Comparison of group testing algorithms for case identification in the presence of dilution effects. ENAR Spring Meetings, Miami, FL (March, 2015). Oral presentation by Dewei Wang.
- Estimating the prevalence of multiple diseases via two-stage hierarchical pooling. ENAR Spring Meetings, Miami, FL (March, 2015). Oral presentation by Md S. Warasi.
- Adaptive robust regression. South Carolina Chapter of the American Statistical Association Meeting, Clemson, SC (November, 2014). Poster presentation with Tao Yang.
- Maximum likelihood estimation based on pooled biomarker assessments: A Monte Carlo approach. South Carolina Chapter of the American Statistical Association Meeting, Clemson, SC (November, 2014). Poster presentation with Yan Liu.
- Estimating the prevalence of multiple diseases via two-stage hierarchical pooling. South Carolina Chapter of the American Statistical Association Meeting, Clemson, SC (November, 2014). Poster presentation with Md S. Warasi.
- Regression analysis of bivariate interval-censored data under the gamma-frailty proportional hazards model using the EM algorithm. South Carolina Chapter of the American Statistical Association Meeting, Clemson, SC (November, 2014). Poster presentation with Prabhathi Wickramasingha.
- The Bayesian CAR model: Modeling the incidence of Lyme disease within the conterminous United States. Annual Mathematics Symposium, Western Kentucky University, Bowling Green, KY (October, 2014).
- Semiparametric group testing regression models. ENAR Spring Meetings, Baltimore, MD (March, 2014). Oral presentation by Dewei Wang.
- Factors influencing the seroprevalence of canine anaplasmosis in the United States. 59th Annual Meeting of the American Association of Veterinary Parasitologists, Denver, CO (July, 2014).
- A new semiparametric framework for modeling group testing data. Joint Statistical Meetings, Montreal, Canada (August, 2013). Oral presentation by Dewei Wang.
- Bayesian regression models for group testing data. Joint Statistical Meetings, Montreal, Canada (August, 2013).
- Group testing for multiple infections with application to the Infertility Prevention Project. Joint Statistical Meetings, Montreal, Canada (August, 2013). Oral presentation by Joshua Tebbs.
- Regression analysis of current status data using the EM algorithm. ENAR Spring Meetings, Orlando, FL (March, 2013). Oral presentation by Lianming Wang.
- Regression models for group testing data with pool dilution effects. ENAR Spring Meetings, Orlando, FL (March, 2013). Oral presentation by Joshua Tebbs.
- EM algorithm for regression analysis of interval-censored data under the proportional hazards model. ENAR Spring Meetings, Orlando, FL (March, 2013). Oral presentation by Lianming Wang.
- Regression models for group testing data with pool dilution effects. ENAR Spring Meetings, Washington, D.C. (April, 2012).
- Regression models for group testing data with pool dilution effects. SC-ASA Palmetto Symposium, Columbia, SC (April, 2012). **Awarded best presentation.**

- Two-dimensional informative array testing. ENAR Spring Meetings, Washington, D.C. (April, 2012). Oral presentation by Joshua Tebbs.
- Two-dimensional informative array testing. Annual Mathematics Symposium, Western Kentucky University, Bowling Green, KY (October, 2011).
- Informative Dorfman screening. ENAR Spring Meetings, Miami, FL (March, 2011). **Awarded the ENAR Distinguished Student Paper Award.**
- Informative array screening. Joint Statistical Meetings, Vancouver, Canada (August, 2010).
- Informative Dorfman screening with risk thresholds. ENAR Spring Meetings, New Orleans, LA (March, 2010).
- A variation in thought about delta optimization. Annual Mathematics Symposium, Western Kentucky University, Bowling Green, KY (November, 2007).
- A collocation method for a special class of higher order differential equations. Annual Mathematics Symposium, Western Kentucky University, Bowling Green, KY (November, 2003).
- Numerov's method for a special class of higher order differential equations. Annual Meeting of MAA and Southeast Regional AMS, Atlanta, GA (March, 2002).

Honors and Awards

- ASA Statistical Significance Poster Award, 2019.
- ASA Outstanding Statistical Application Award, 2018.
- Best Paper in *Biometrics* by an IBS Member, 2017.
- ASA Outstanding Statistical Application Award, 2014.
- Outstanding Service to Graduate Students Award, 2014.
- Citizenship Award, Department of Statistics, University of South Carolina, 2012.
- SC-ASA Best Presentation Award, 2012.
- Dean's Award for Excellence in Graduate Study, University of South Carolina, 2012.
- Outstanding Graduate Student Award, *Breakthrough* magazine, 2012.
- ENAR Distinguished Student Paper Award, 2011.
- Dean of the College of Arts and Sciences Dissertation Fellowship Award, University of South Carolina, 2011.
- James D. Lynch Graduate Research Award, Department of Statistics, University of South Carolina, 2011.
- Travel Grant, Department of Statistics, University of South Carolina, 2011.
- Travel Grant, Graduate School, University of South Carolina, 2011.
- Outstanding Graduate Student in Academics Award, Department of Statistics, University of South Carolina, 2010.
- Travel Grant, College of Arts and Sciences, University of South Carolina, 2010.
- Travel Grant, Graduate School, University of South Carolina, 2010.
- Travel Grant, Department of Statistics, University of South Carolina, 2010.
- Outstanding First-Year Student, Department of Statistics, University of South Carolina, 2009.

- Mathematics Graduate Student of the Year, Department of Mathematics, Western Kentucky University, 2008.
- Dr. Glenn Powers Scholarship, Department of Mathematics, Western Kentucky University, 2007.
- Finalist, Drane Award, Austin Peay State University, 2005.
- Kappa Sigma Endowment Fund Scholarship, Austin Peay State University, 2002 and 2003.
- United States Navy Scholarship, Austin Peay State University, 2000.
- Presidential Academic Honors Scholarship, Austin Peay State University, 2000.

SPONSORED RESEARCH

- GPU-accelerated mathematical optimization with applications to big data, computer modeling, and simulation (N00014-19-1-229), sponsored by the Office of Naval Research, Co-Principal Investigator, \$316,000 (\$52,667), 2019.
- RII Track-2 FEC: A Multiscale, Multiphysics Modeling Framework for Genome-to-Phenome Mapping via Intermediate Phenotypes (OIA-1826715), sponsored by the National Science Foundation, Co-Principal Investigator, \$5,999,995 (\$735,220), 2018-2022.
- 2018-2019 Parasite Forecasting Agreement, sponsored by the Companion Animal Parasite Council, Co-Principal Investigator, \$51,327 (\$25,663), 2018-2019.
- NRT-DESE: Preparing Resilient and Operationally Adaptive Communities through an Interdisciplinary, Venture-based Education (PROACTIVE) (DGE-1633608), sponsored by the National Science Foundation, Co-Principal Investigator, \$2,989,899 (\$239,191), 2016-2021.
- 2017-2018 Parasite Forecasting Agreement, sponsored by the Companion Animal Parasite Council, Principal Investigator, \$34,218 (\$34,218), 2017-2018.
- 2016-2017 Parasite Forecasting, sponsored by the Companion Animal Parasite Council, Co-Principal Investigator, \$70,818 (\$35,409), 2016-2017.
- Group testing for infectious disease detection: multiplex assays and back-end screening (R01-AI121351), sponsored by the National Institutes of Health, Co-Principal Investigator, \$1,128,863 (\$284,442), 2016-2019.
- Forecasting various canine vector-borne diseases within the conterminous United States, sponsored by the Companion Animal Parasite Council, Principal Investigator, \$77,782 (\$38,891), 2016-2017.
- Modeling rice production and resistance to climate change in Indonesia, sponsored by Biorealm, Principal Investigator, \$21,494 (\$7,165), 2016.
- CAPC 2015 Clemson University parasite forecasting, sponsored by the Companion Animal Parasite Council, Co-Principal Investigator, \$52,140 (\$26,070), 2015-2016.

POSTDOCTORAL ADVISING

Current Postdoctoral Advising

- Jenna Gettings, Ph.D., North Carolina State University. Boehringer Ingelheim-CAPC Infectious Disease Postdoctoral Fellow. Co-advising with Drs. Robert Lund and Michael Yabsley.

GRADUATE STUDENT ADVISING

Previous Graduate Advising

Doctoral Graduates Advised or Co-advised

- Chase Joyner, Ph.D., (Mathematical Sciences), F19, “High dimensional regression techniques for complex data.”
- Stella Watson-Self, Ph.D. (Mathematical Sciences), SS19, “Bayesian spatio-temporal modeling for forecasting, trend assessment and spatial trend filtering.”
- Prabhashi Wickramasingha, Ph.D. (Mathematical Sciences), SS18, “Flexible models for analyzing specially-structured survival data.”
- Yan Liu, Ph.D. (Mathematical Sciences), SS17, “Latent data modeling with biostatistical applications,” (Co-advised with Dr. Colin Gallagher).
- Tao Yang, Ph.D. (Mathematical Sciences), SS17, “Adaptive robust methodology for parameter estimation and variable selection,” (Co-advised with Dr. Colin Gallagher).
- Dewei Wang, Ph.D. (Mathematical Sciences), S14, “Nonparametric and semiparametric group testing regression models,” (Co-advised with Dr. Colin Gallagher).

Masters Graduates Advised or Co-advised

- Brandon Lumsden, M.S. (Mathematical Sciences), F19, “Ensemble based genomics.”
- Hannah Rollins, M.S. (Mathematical Sciences), S19, “High dimensional methods for statistical genetics.”
- Stella Watson, M.S. (Mathematical Sciences), SS16, “A Comparison of the point process and predictive process Gaussian spatial models with an application to land parcel data.”
- Stefani Mokalled, M.S. (Mathematical Sciences), S16, “Estimating biomarker distributions via pooled assessments.”
- Chase Joyner, M.S. (Mathematical Sciences), S16, “Bayesian approach of biomarker density estimation using pooled data,” (Co-advised with Dr. Yingbo Li).
- Janie McDonald, M.S. (Mathematical Sciences), S15, “An Exact Test for Binary Data Using Weights and Empirical Bayes Estimates for Cluster Level Success Probabilities,” (Co-advised with Dr. Patrick Gerard).
- Prabhashi Wickramasingha, M.S. (Mathematical Sciences), SS14, “Regression analysis of bivariate interval censored data under the gamma-frailty proportional hazards model using the EM algorithm.”

Committee Member

Doctoral Students

- * Haotin Feng, Ph.D. (Mathematical Sciences), SS19.
- * Yisu Jia, Ph.D. (Mathematical Sciences), S18.
- * Hewa Priyadarshani, Ph.D. (Mathematical Sciences), F15.
- * Chendi Jiang, Ph.D. (Mathematical Sciences), SS15.
- * Dominique Morgan, Ph.D. (Mathematical Sciences), S15.
- * Jie Shen, Ph.D. (Mathematical Sciences), F13.

Masters Students

- * Hamid Nazari, M.S. (Mathematical Sciences), S20.

- * Trevor Squires, M.S. (Mathematical Sciences), S20.
- * Kristina Gorsline, M.S. (Mathematical Sciences), S19.
- * Elan Ding, M.S. (Mathematical Sciences), S19.
- * Catherine Kenyon, M.S. (Mathematical Sciences), S19.
- * Xiyan Tan, M.S. (Mathematical Sciences), F18.
- * Aaron Moose, M.S. (Mathematical Sciences), F18.
- * Madeleine St. Ville, M.S. (Mathematical Sciences), SS18.
- * Jun Yuan, M.S. (Mathematical Sciences), SS18.
- * Xun Dong, M.S. (Mathematical Sciences), SS18.
- * Katherine Bernier, M.S. (City and Regional Planning), S17.
- * Rui Gong, M.S. (Mathematical Sciences), F17.
- * Carl Ehrett, M.S. (Mathematical Sciences), S17.
- * Sijun Shen, M.S. (Mathematical Sciences), S16.
- * Michael Lamoreux, M.S. (Mathematical Sciences), S16.
- * Elaine Southerdan, M.S. (Mathematical Sciences), F14.
- * James Wrenn, M.S. (Mathematical Sciences), S14.
- * Emily Nystrom, M.S. (Mathematical Sciences), S14.
- * Andrew Schwarzer, M.S. (Mathematical Sciences), S14.
- * Yisu Jia, M.S. (Mathematical Sciences), S14.
- * William Shipes, M.S. (Mathematical Sciences), S14.
- * Dihlani Marasinghe, M.S. (Mathematical Sciences), S14.
- * Xueheng Shi, M.S. (Mathematical Sciences), F14.
- * Junyang Zhuang, M.S. (Mathematical Sciences), F14.

Current Graduate Advising

Doctoral Graduate Advising

- Paul Cubre, Ph.D., Advisor.
- Maddy St. Ville, Ph.D., Co-advised with Dr. Joe Bible.
- Jinging Wang, Ph.D., Co-advised with Dr. Joe Bible.
- Stefani Mokalled, Ph.D., Advisor.
- Yuan Yang, Ph.D., Co-advised with Dr. Yubo Wang.
- Brandon Lumsden, Ph.D., Advisor.

Masters Graduate Advising

- Alena Turner, M.S., Advisor.

Committee Member

- Boyoung Hur, Ph.D.
- Michelle Eichinger, Ph.D.
- Stanley Anderson, Ph.D.
- Stephen McGee, Ph.D.
- Carl Ehrett, Ph.D.
- Nakisha Fouch, Ph.D.
- Xiyan Tan, Ph.D.
- Jiajing Niu, Ph.D.

University Service

- Member of the Clemson University Modeling Team: Covid-19 (2020).
- Elected member of the College of Science Associate Dean Search Committee (2020).
- Member of curriculum working group for the Clemson University Program on Resilient Infrastructure in Environmental Systems Engineering and Science (NSF National Research Traineeship) (2020-present).
- Search committee member on the cluster hire for the Center for Human Genetics (2019).
- Working group chair for outreach, communications, and recruiting for the Clemson University Program on Resilient Infrastructure in Environmental Systems Engineering and Science (NSF National Research Traineeship) (2018-present).
- Search committee member on the cluster hire for the Center for Human Genetics (2018).
- Organized Clemson's first Genetics Symposium (2018).

Departmental Service

- Member of the search committee for the Director of the School of Mathematical and Statistical Sciences (2019).
- Member of the search committee for the Director of the School of Mathematical and Statistical Sciences (2018).
- Statistics sub-faculty representative on the Graduate Affairs Committee (2016-present).
- Member of hiring committee (2013-2019), and as a part of these committees we sought to hire 9 colleagues.
- Co-chair of the Mathematical Sciences Statistics and Probability Research Seminar Series (2012-2017).
- Statistics sub-faculty representative on the Research Committee (2012-2017).

Teaching

Clemson University

MATH 3020, Statistics for Science and Engineering: F14, S15, SS15.

MTHSC 400/600, Theory of Probability: F12.

MATH 4070/6070, Regression and Time Series: F15, S18.

MATH 4810, Seminar in Mathematics: S14.

MTHSC 482, Undergraduate Research: S13, F13, S19.

MATH 8000, Probability: F17, SS20.

MTHS 804/ MATH 8040, Statistical Inference: F13, F14, S16, S17, S18.

MTHSC 805, Data Analysis: S13.

MATH 8810, Mathematical Statistics: S14, F14, S15.

MATH 8820, Introduction to Bayesian Statistics: F16, F18.

MATH 8850, Advanced Data Analysis: F15.

MATH 8920, Masters Project: S14, S16, SS16, S19.

MATH 9700, Directed Studies in Math Sciences: S16, S17, SS20.

MATH 9810, Selected Topics: Statistical Genetics I: F18.

MATH 9810, Selected Topics: Statistical Genetics II: S19.

MATH 9810, Selected Topics: Machine Learning: S19.

MATH 9880, Selected Topics: Machine Learning 2: F19.

MTHSC 991/MTHS 9910/MATH 9910, Doctoral Dissertation Research: S13, SS13, F13, S14, SS14, S15, SS15, F15, S16, SS16, F16, S17, SS17, F17, S18, F18, S19, F19, SS20.

University of South Carolina

STAT 511, Probability: SS10, SS11.

Professional Activities

- Associate Editor of The American Statistician, (2020-present).
- Associate Editor of Statistics in Medicine, (2020-present).
- Board member, Companion Animal Parasite Council, (2020-present).
- Member, External Advisory Group for the National Institute on Aging's Alzheimer's disease-focused Resource Center for Minority Aging Research entitled the Carolina Center on Alzheimer's Disease and Minority Research (CCADMR), (2019-present).
- Member, Data Safety and Monitoring Board for a NIMH-funded randomized clinical trial, "Partnership in Implementation Science for Geriatric Mental (PRISM)," (2019-present).
- Member, American Statistical Association's committee on International Relations in Statistics, (2018-present).
- Reviewer, Journal of Clinical Epidemiology, 1 article (2020-present).
- Reviewer, Scandinavian Journal of Statistics, 1 article (2020-present).
- Reviewer, Biometrical Journal, 2 article (2019-present).
- Reviewer, Journal of Agricultural Biological and Environmental Statistics, 1 article (2020-present).
- Reviewer, Journal of Nonparametric Statistics, 2 article (2019-present).
- Reviewer, Agronomy, 1 article (2019-present).
- Reviewer, Nature, 1 article (2019-present).
- Reviewer, Journal of Nonparametric Statistics, 1 article (2019-present).
- Reviewer, Communications in Statistics, 3 article (2019-present).
- Reviewer, NSF pre-proposal LSU, 3 proposals (2018).
- Reviewer, Taylor and Francis, 1 book (2018).
- Reviewer, Computational Statistics and Data Analysis, 1 article (2018-present).
- Reviewer, Journal of the Operational Research Society, 1 article (2018-present).
- Reviewer, American Journal of Epidemiology, 1 article (2017-present).
- Reviewer, PLoS Neglected Tropical Diseases, 1 article (2017-present).
- Reviewer, Lifetime Data Analysis, 1 article (2017-present).
- Reviewer, Computational and Mathematical Methods in Medicine, 1 article (2015-present).

- Reviewer, Environmetrics, 3 article (2015-present).
- Reviewer, Journal of Statistical Computation and Simulation, 2 article (2015-present).
- Reviewer, PLoS ONE, 6 article (2015-present).
- Reviewer, Statistics and its Interface, 1 article (2014-present).
- Reviewer, Journal of Statistical Planning and Inference, 2 article (2013-present).
- Reviewer, Biometrics, 10 articles (2013-present).
- Reviewer, Journal of the American Statistical Association, 3 article (2013-present).
- Reviewer, Biometrika, 1 article (2013-present).
- Reviewer, Statistics in Medicine, 11 articles (2012-present).
- Reviewer, The American Statistician, 2 articles (2012-present).
- Reviewer, ONR (2019).
- Chaired a contributed session at Computational and Methodological Statistics, London, UK (December, 2019).
- Chaired a invited session at INFORMS, Seattle, WA (October, 2019).
- Panel Member, NSF DMS, Statistics (2018).
- Chaired a contributed session at IBC, Barcelona, Spain (July, 2018).
- Taught a short course at BINUS University, Jakarta, Indonesia (May, 2018).
- President, South Carolina American Statistical Association Chapter, (2015-2017).
- Assisted in organizing the SC-ASA Palmetto Symposium, Columbia, SC (March, 2017).
- Assisted in organizing the SC-ASA Palmetto Symposium, Columbia, SC (March, 2016).
- Assisted in organizing an ASA Traveling Short Course, Charleston, SC (November, 2015).
- Vice President, South Carolina American Statistical Association Chapter, (2013-2015).
- Assisted in organizing the SC-ASA Palmetto Symposium, Columbia, SC (March, 2015).
- Chaired a contributed session at IASSL, Colombo, Sri Lanka (December, 2014).
- Organized an invited session at IASSL, Colombo, Sri Lanka (December, 2014).
- Assisted in organizing the inaugural meeting of the South Carolina Statistics Consortium, Clemson, SC (November, 2014).
- Assisted in organizing the SC-ASA Palmetto Symposium, Columbia, SC (March, 2014).
- Assisted in organizing the Fall 2013 Meeting of the South Carolina Chapter of the American Statistical Association, Charleston, SC.

Memberships

- Member, South Carolina American Statistical Association Chapter, (2012-present).
- Member, Institute of Mathematical Statistics, (2011-2013).
- Member, American Statistical Association, (2009-present).
- Member, International Biometric Society, (2009-2013).

Updated October 31, 2019.