ROGER S. ZOH, Ph.D
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Education

Ph.D. Statistics
Iowa State University, Ames, IA, August 2012
Dissertation: Using the Negative Log-Gamma Distribution for Bayesian System Reliability Assessment.
Advisor: Alyson G. Wilson

M.S. Statistics
Iowa State University, Ames, IA, December 2009
Thesis: Comparison of Various Methods for Constructing Confidence Intervals for Two Multivariate Capability Indices in a Gauge R&R Study
Advisor: Alyson G. Wilson

B.S. Mathematics with Minor in Physics
Southern University at New Orleans, New Orleans, LA, August 2006

Research Interests

Biostatistics, Bayesian Inference, Bayesian Reliability Modeling, Bayesian Factor Analysis, Analysis of Genomic Data, Engineering Statistics, Bioinformatics, Functional Longitudinal Data Analysis, Machine Learning, Statistical Modeling, Nutrition and Cancer Epidemiology

Professional Experience

Assistant Professor, Texas A&M University Department of Epidemiology and Biostatistics, School of Public Health, 08/2015 - Present

Adjunct Faculty, Texas A&M University Department of Statistics, 08/2015 – Present

Adjunct Faculty, Texas A&M University Department of Epidemiology and Biostatistics, School of Public Health, 01/2014 – 06/2014

Research Assistant Professor, Texas A&M University, Department of Statistics, 08/2012 – 04/2015

Graduate Research Assistant, Iowa State University, Department of Statistics, August 2006 – 08/2012
Graduate Consultant, Iowa State University, Department of Statistics, June 2007 – August 2008
Research Assistant, Los Alamos National Laboratory, June 2010 – August 2010

Teaching Experience

- Fall 2017: PHEB-609 – Categorical data analysis, Texas A&M University, School of Public Health. Graduate course
- Spring 2017: PHEB-602 – Introduction to Biostatistics, Texas A&M University, School of Public Health. Graduate course
- Fall 2016: PHEB-609 – Categorical data analysis, Texas A&M University, School of Public Health. Graduate course
- Spring 2016: PHEB-602 – Introduction to Biostatistics, Texas A&M University, School of Public Health. Graduate course
- Spring 2015**:** 3 Days tutorial on using Julia and RStan for statistical computing, Texas A&M University, Department of Statistics.
- Spring 2014: PHEB 614 - Longitudinal Data Analysis (15 Students, 3cr), Texas A&M University. School of Public Health. Graduate course.
- Fall 2011: STAT 330 – Statistics for electrical Engineers (50 Students, 3 cr), Iowa State University. Undergraduate course.
- Fall 2010: STAT 305 Engineering Statistics (61 Students, 3 cr), ISU undergraduate course.
- Fall 2009: STAT 305 Engineering Statistics (48 Students, 3 cr), Iowa State University. Undergraduate course.
- Spring 2009: STAT 305 Engineering Statistics (48 Students, 3 cr), ISU undergraduate course.
- Fall 2008: STAT 305 Engineering Statistics (48 Students, 3 cr), ISU undergraduate course.
- Summer 2005 Algebra and Calculus (35 Students), Program of Excellence in Science, Mathematics, Computers, and Technology Summer Program for 8th to 12th-grade students, Southern University at New Orleans.

Under Review

- Tekwe,C.D., **Roger Zoh S.**, Lan Xue, 2017+. "Instrumental variable approach to estimating the functional linear regression model with an imprecisely measured covariate." Submitted to Biometrika.
- **Zoh R.S.**, Wilson A.G., Vander Wiel, S., Lawrence, E.C., "Bayesian Negative Log-Gamma Model for Large Systems through a Component Selection Approach." Submitted to *IEEE Transactions on Reliability*
- Eunjoo Kim, Gus Wright, **Roger S. Zoh**, Bhimanagouda S. Patil, Guddadarangavvanahally K. Jayaprakasha, Evelyn S. Callaway, Ivan Ivanov, Nancy D. Turner, and Robert S. Chapkin, "Dose-response effects of dietary factors that promote the targeted deletion of DNA damaged Lgr5 + stem cells in a mouse model of colon tumor initiation" Submitted to ***Cancer Prevention Research.***

- Eunjoo Kim, Natividad R. Fuentes, Michael L. Salinas, Alfredo Erazo-Oliveras, Miranda J. George, **Roger S. Zoh**, Martha E. Hensel, Bhimanagouda S. Patil, Guddadarangavvanahally K. Jayaprakasha, Evelyn S. Callaway, Ivan Ivanov, Nancy D. Turner, Brad R. Weeks, Eric R. Fearon and Robert S. Chapkin, "Increased

plasma membrane order associated with oncogenic Apc and Kras signaling promotes cell proliferation in colonocytes." Submitted to *Cell Metabolism*.

Published/Submitted Manuscripts

- **Zoh R.S.**, Abhra Sarkar, Raymond Carroll J., Mallick, B. "A Powerful Bayesian Test for Equality of Means in High Dimensions." *JASA* (2017).
- Tekwe, C.D., **Roger Zoh S.,** Raymond J. Carroll. "Functional Multiple Indicators, Multiple Causes Measurement Error Model." *Biometrics* (2017).
- **Zoh R.S.**, Alyson Wilson G., Scott Vander Wiel, Earl Lawrence C. "The Negative Log-Gamma Prior Distribution for Bayesian Assessment of System Reliability." *Journal of Risk and Reliability Part O* (2017).
- **Zoh, Roger S.**, Bani Mallick, Ivan Ivanov, Veera Baladandayuthapani, Ganiraju Manyam, Robert S. Chapkin, Johanna W. Lampe, and Raymond J. Carroll. "PCAN: Probabilistic correlation analysis of two non-normal data sets." *Biometrics* (2016).
- Taylor, Brandie D., Roberta B. Ness, Mark A. Klebanoff, **Roger Zoh S.**, Debra Bass, David M. Hougaard, Kristin Skogstrand, and Catherine L. Haggerty. "First and second-trimester immune biomarkers in preeclamptic and normotensive women." *Pregnancy Hypertension: An International Journal of Women's Cardiovascular Health* (2016).
- Kim, Eunjoo, Laurie A. Davidson**, Roger S. Zoh**, Martha E. Hensel, Michael L. Salinas, Bhimanagouda S. Patil, Guddadarangavvanahally K. Jayaprakasha et al. "Rapidly cycling Lgr5+ stem cells are exquisitely sensitive to extrinsic dietary factors that modulate colon cancer risk." *Cell Death & Disease* 7, no. 11 (2016): e2460.
- Shah, Manasvi S., Eunjoo Kim, Laurie A. Davidson, Jason M. Knight**, Roger Zoh S.**, Jennifer S. Goldsby, Evelyn S. Callaway, Beyian Zhou, Ivan Ivanov, and Robert S. Chapkin. "Comparative effects of diet and carcinogen on microRNA expression in the stem cell niche of the mouse colonic crypt." *Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease* 1862, no. 1 (2016): 121-134.
- Kim, Eunjoo, Laurie A. Davidson**, Roger S. Zoh**, Martha E. Hensel, Bhimanagouda S. Patil, Guddadarangavvanahally K. Jayaprakasha, Evelyn S. Callaway et al. "Homeostatic responses of colonic LGR5+ stem cells following acute in vivo exposure to a genotoxic carcinogen." *Carcinogenesis*37, no. 2 (2016): 206-214.
- Shah, Manasvi S., Eunjoo Kim, Laurie A. Davidson, Jason M. Knight**, Roger S. Zoh**, Jennifer S. Goldsby, Evelyn S. Callaway, Beyian Zhou, Ivan Ivanov, and Robert S. Chapkin. "Data describing the effects of dietary bioactive agents on colonic stem cell microRNA and mRNA expression." *Data in brief*6 (2016): 398-404.
- Chiodo, E., G. Mazzanti, M. Karimian, and **Roger Zoh**. "Comparison of two different estimation methods of wind speed extreme values." In *Clean Electrical Power (ICCEP), 2015 International Conference on*, pp. 653-659. IEEE, 2015.

Manuscripts in Preparation

- **Zoh R.S.**, Mallick Bani "Bayesian covariance test in high dimension." In Preparation.
- Randolph, T., **Zoh, R.S**., Ivanov, I., Chapkin, R.S., "Leveraging extra sources of information to improve classification performances." In Preparation. *Bioinformatics*.
- **Zoh, R.S**., Sinha, S, "A two-group comparison based on RNA-Seq data sets." In preparation. *Biometrics*
- **Zoh R.**S. "On Bayesian component selection in a large series system", In preparation.

Computer Skills

R, Julia, MATLAB(basic), SAS, Python(basic), C++, LaTeX, JMP, Unix, Word, Excel, PowerPoint, WinBUGS

Honors/Awards/Invited Talks

- Oral presentation at the 2016 Joint Statistical Conference (JSM). "A Restricted Most Powerful Bayesian Test for Equality of Means in High Dimension via Random Projections." Chicago, IL, August 2016.
- Invited Talk at the United States Military Academy, "Using the Negative Log-Gamma Distribution for Bayesian System Reliability Assessment." West Point, NY, March 2014.
- Poster Presentation at the Human Microbiome Science: Vision for the Future Meeting, "Probabilistic Correlation Analysis of the Metagenome and Host Transcriptome." Bethesda MD, July 2013.
- Honorable Mention, Poster presentation at the Conference On Data Analysis, "Negative Log-Gamma Modeling of a Series System Reliability with a Trend in the Presence of a Few Highly Reliable Components." Santa Fe, NM, March 2012.
- Oral presentation at the 2011 Joint Statistical Conference (JSM). "Negative Log-Gamma Modeling for Reliability Trends in Series Systems." Miami, FL, August 2011.
- Oral presentation at the 28th Quality and Productivity Research Conference, "Negative Log-Gamma Modeling for Reliability Trends in Series Systems." Roanoke, VA, June 2011.
- Quality and Productivity Research Conference Scholarship, Roanoke, VA, June 2011.
- Alliance for Graduate Education and the Professoriate (AGEP) Fellowship. Iowa State University, fall 2006 – August 2012.
- Oral presentation at 63rd Joint Meeting of Beta Kappa Chi and the National Institute of Science, "Linear Solution of the Predator-Prey Non-Linear Differential Equations." Montgomery, AL, March 2006.

- Second place oral presentation at the 7th National Historical Black Colleges and Universities Conference, “Linear Solution of the Predator-Prey Non-Linear Differential Equations.’’ Baltimore, MD, February 2006**.**
- Distinguished Scholarship for Tutoring and Service after Hurricane Katrina, Southern University at New Orleans, spring 2006.
- Program of Excellence for Science, Mathematics, Computers and Technology Full Scholarship, Department of Mathematics, Southern University at New Orleans. Fall 2004 –Summer 2006.
- Oral presentation at 6th National Historical Black Colleges and Universities Conference, “Multivariate Analysis of Stocks Performance.” New Orleans, LA, February 2005.
- Louisiana Alliance for Minority Participation Full Scholarship, Department of Mathematics, Southern University at New Orleans. Spring 2004.

Professional Affiliation

- Member of Beta Kappa Chi Natural Sciences and Mathematics Honors Society, Fall 2005.
- NSF/AGEP Fellow Fall 2006 to Spring 2012
- Member of the American Statistical Association (ASA)
- Member of the International Society for Bayesian Analysis (ISBA)

Research Grants

- Departmental Start-Up Funds, Texas A&M Health Science Center, 09/01/15 – 08/31/18 Research Initiation Funds (Total award: $36,000) - PI

- DHHS-NIH-National Cancer Institute, Measurement Error, Nutrition, Physical Activity and Cancer Supplement Grant to a R01 grant for analysis of diet and measurement activity data, 10/01/17 – 09/30/19 (Total award: $352,528.00) CO-PI