

Ruiyan Luo

Professor

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EDUCATION

PhD **University of Wisconsin–Madison**, Statistics, 2007.

MS **Tianjin University, China**, Applied Mathematics, 2002.

BS **Tianjin University, China**, Applied Mathematics, 2000.

EXPERIENCE

- Professor, Department of Population Health Sciences, School of Public Health, Georgia State University. Fall 2023 – Present.
- Associate Professor, Department of Population Health Sciences, School of Public Health, Georgia State University. Spring 2017 – Spring 2023.
- Assistant Professor, Division of Epidemiology and Biostatistics, School of Public Health, Georgia State University. Fall 2012 – Spring 2017.
- Assistant Professor, Department of Mathematics and Statistics, Georgia State University. Fall 2010 – Summer 2012.
- Postdoctoral Associate, Department of Epidemiology and Public Health, Yale University. Fall 2007– Spring 2010.
- Research Assistant, Department of Statistics, University of Wisconsin–Madison. Fall 2003 – Spring 2007.
- Teaching Assistant, Department of Statistics, University of Wisconsin–Madison. Fall 2002 – Spring 2003.

PEER REVIEWED PUBLICATIONS +Graduate student

1. (Accepted) SubEpiPredict: A tutorial-based primer and toolbox for fitting and forecasting growth trajectories using the ensemble n-sub-epidemic modeling framework. *Infectious Disease Modelling*
2. Gerardo Chowell, Amanda Bleichrodt, Ruiyan Luo (Accepted) Parameter estimation and forecasting with quantified uncertainty for ordinary differential equation models using QuantDiffForecast: A MATLAB toolbox and tutorial. *Statistics in Medicine*
3. A toolbox and tutorial-based primer for fitting and forecasting growth trajectories using phenomenological growth models. *Scientific Reports*
4. Gerardo Chowell, Amanda Bleichrodt, Sushma Dahal, Amna Tariq, Kimberlyn Roosa, James M. Hyman, **Ruiyan Luo** (2023) A MATLAB toolbox to fit and forecast growth trajectories using phenomenological growth models: Application to epidemic outbreaks. *Research Square*
5. **Ruiyan Luo** and Xin Qi. (2023) General Nonlinear Function-on-Function Regression via Functional Universal Approximation. *Journal of Computational and Graphical Statistics*.
<https://doi.org/10.1080/10618600.2023.2252033>
6. +Renee White, Rich Rothenberg, and **Ruiyan Luo**. (2023) Non-pharmaceutical Interventions in the State of Georgia: Economic Implications. *Ethics, Medicine, and Public Health* **28**: June, 100891.
<https://doi.org/10.1016/j.jemep.2023.100891>
7. **Ruiyan Luo** and Xin Qi. (2023) Nonlinear Function-on-Scalar Regression via Functional Universal Approximation. *Biometrics*
<https://doi.org/10.1111/biom.13838>
8. +Renee White, Rich Rothenberg, and **Ruiyan Luo**. (2023) Nonpharmaceutical Interventions in Georgia: Public Health Implications. *Southern Medical Journal* **116(5)**:383-389.
<https://doi.org/10.14423/SMJ.0000000000001552>
9. **Ruiyan Luo** and Xin Qi. (2023) Modeling spiky functional data with derivatives of smooth functions in function-on-function. *Statistica Sinica* **33**:819-850
http://www3.stat.sinica.edu.tw/ss_newpaper/SS-2020-0294_na.pdf

10. +Amanda Bleichrodt, +Sushma Dahal, Kevin Maloney, Lisa Casanova, **Ruiyan Luo** and Gerardo Chowell (2023) Real-time forecasting the trajectory of monkeypox outbreaks at the national and global levels, July–October 2022. *BMC Medicine* **21**:19.
<https://doi.org/10.1186/s12916-022-02725-2>
11. +Sushma Dahal, Svenn-Erik Mamelund, **Ruiyan Luo**, Lisa Sattenspiel, Shannon Self-Brown, Gerardo Chowell. (2022) Investigating COVID-19 transmission and mortality differences among Indigenous and non-Indigenous populations in Mexico. *International Journal of Infectious Diseases* **122**:910-920.
<https://doi.org/10.1016/j.ijid.2022.07.052>
12. +Amna Tariq, Tsira Chakhaia, +Sushma Dahal, Alexander Ewing, Xinyi Hua, Sylvia K Ofori, Olaseni Prince, Argita D Salindri, Ayotomiwa Ezekiel Adeniyi, Juan M Banda, Pavel Skums, **Ruiyan Luo**, Leidy Y Lara-Díaz, Raimund Bürger, Isaac Chun-Hai Fung, Eunha Shim, Alexander Kirpich, Anuj Srivastava, Gerardo Chowell (2022) An investigation of spatial-temporal patterns and predictions of the coronavirus 2019 pandemic in Colombia, 2020-2021. (2022) *PLOS Neglected Tropical Diseases* **16**(3): e0010228.
<https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0010228>
13. +Bayan Ali M Almohaimed, Shanta Rishi Dube, **Ruiyan Luo** (2022) Investigating oral health among individuals with depression: NHANES 2015-0216. *The Saudi Dental Journal* **34**(3): 249-258.
<https://doi.org/10.1016/j.sdentj.2022.01.001>
14. A. B. Smirnova, B. D. +Pidgeon, **Ruiyan Luo** (2022) On Stable Parameter Estimation and Short-term Forecasting with Quantified Uncertainty for COVID-19 Transmission. *Journal of Inverse and Ill-Posed Problem (JIIP)*.
<https://doi.org/10.1515/jiip-2021-0037>
15. **Ruiyan Luo** and Xin Qi. (2022) Restricted function-on-function linear regression model. *Biometrics* **78**(3): 1031-1044.
<https://doi/10.1111/biom.13463>
16. +Sushma Dahal, **Ruiyan Luo**, Monica H. Swahn, and Gerardo Chowell, (2021) Geospatial Variability in Excess Death Rates during the COVID-19 Pandemic in Mexico: Examining Socio Demographic, Climate and Population Health Characteristics. *International Journal of Infectious Diseases*. **113**: 347-354.
<https://doi.org/10.1016/j.ijid.2021.10.024>

17. ⁺Amna Tariq, Juan M. Banda, Pavel Skums, Sushma Dahal, Carlos Castillo-Garsow, Baltazar Espinoza, Noel G. Brizuela, Roberto A. Saenz, Alexander Kirpich, **Ruiyan Luo**, Anuj Srivastava, Humberto Gutierrez, Nestor Garcia Chan, Ana I. Bento, Maria-Eugenia Jimenez-Corona, Gerardo Chowell (2021) Transmission dynamics and forecasts of the COVID-19 pandemic in Mexico, March–December, 2020. *PLOS ONE*.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0254826>
18. Sushma Dahal, **Ruiyan Luo**, Raj Kumar Subedi, Meghnath Dhimal, and Gerardo Chowell (2021) Transmission Dynamics and Short-Term Forecasts of COVID-19: Nepal 2020/2021. *epidemiologia*. **2(4)**: 639-659.
<https://doi.org/10.3390/epidemiologia2040043>
19. **Ruiyan Luo** and Xin Qi. (2021) Functional regression for densely observed data with novel regularization. *Journal of Computational and Graphical Statistics*. **30(1)**: 220-235.
<https://doi.org/10.1080/10618600.2020.1807994>
20. Gerardo Chowell, **Ruiyan Luo** (2021) Ensemble bootstrap methodology for forecasting dynamic growth processes using differential equations: application to epidemic outbreaks. *BMC Medical Research Methodology*. **21**, Article number: 34.
<https://bmcmmedresmethodol.biomedcentral.com/articles/10.1186/s12874-021-01226-9>
21. ⁺Amna Tariq, Eduardo A. Undurraga, Carla Castillo Laborde, Katia Vogt-Geisse, **Ruiyan Luo**, Richard Rothenberg, Gerardo Chowell (2021) Transmission dynamics and control of COVID-19 in Chile, March–June, 2020. *PLOS Neglected Tropical Diseases*.
<https://doi.org/10.1371/journal.pntd.0009070>.
22. ⁺Smriti Khare, ⁺Sushma Dahal, **Ruiyan Luo**, Richard Rothenberg, Kenji Mizumoto, Gerardo Chowell. (2020) Stillbirth Risk during the 1918 Influenza Pandemic in Arizona, USA. *epidemiologia*. **1(1)**: 23-30.
<https://doi.org/10.3390/epidemiologia1010005>
23. ⁺Kimberly Roosa, Yiseul Lee, **Ruiyan Luo**, Alexander Kirpich, Richard Rothenberg, James M Hyman, Ping Yan, Gerardo Chowell (2020) Short-term forecasts of the COVID-19 epidemic in Guangdong and Zhejiang, China: February 13–23, 2020. *Journal of Clinical Medicine*.
<https://www.mdpi.com/2077-0383/9/2/596>.

24. +Kimberlyn Roosa, Yiseul Lee, **Ruiyan Luo**, Alexander Kirpich, Richard Rothenberg, James M Hyman, Ping Yan, Gerardo Chowell (2020) Real-time forecasts of the 2019-nCoV epidemic in China from February 5th to February 24th, 2020. *Infectious Disease Modelling*. **5**: 256-263.
<https://doi.org/10.1016/j.idm.2020.02.002>
25. Gerardo Chowell, **Ruiyan Luo**, K. Sun, +K. Roose, +A. Tariq, C. Viboud (2020) Real-time forecasting of epidemic trajectories using computational dynamic ensembles. *Epidemics*. **30**, 100379.
<https://doi.org/10.1016/j.epidem.2019.100379>
26. Mei-Lan Chen, Elisabeth Burgess, Ying-Yu Chao, Douglas Gardenhire, and **Ruiyan Luo** (2020) Effects of Resistance Exercise on Mental Health in Older Chinese Americans: A Randomized Controlled Trial. *Innovation in Aging*. **4**(Suppl 1): 187.
<https://doi.org/10.1093/geroni/igaa057.605>
27. Xin Qi and **Ruiyan Luo**. (2019) Nonlinear function-on-function additive model with multiple predictor curves. *Statistica Sinica*. **29**: 719-739.
<https://doi.org/10.5705/ss.202017.0249>
28. **Ruiyan Luo** and Xin Qi. (2019) Interaction model and model selection for function-on-function regression. *Journal of Computational and Graphical Statistics*. **28(2)**: 309-322.
<https://doi.org/10.1080/10618600.2018.1514310>
29. +Kimberlyn Roosa, **Ruiyan Luo**, Gerardo Chowell (2019) Comparative assessment of parameter estimation methods in the presence of overdispersion: a simulation study. *Mathematical Biosciences and Engineering*. **16(5)**: 4299-4313.
<https://doi.org/10.3934/mbe.2019214>
30. Xin Qi, and **Ruiyan Luo**. (2018) Function on function regression with thousands of predictive curves. *Journal of Multivariate Analysis*. **163(C)**: 51-66.
<https://doi.org/10.1016/j.jmva.2017.10.002>
31. Daria Filonov, Raymond Tice, **Ruiyan Luo**, Chad Grotegut, Michael J. Van Kanegan, John Ludlow, Dora Il'yasova, Alexander Kinev (2018) Initial Assessment of Variability of Responses to Toxicants in Donor-Specific Endothelial Colony Forming Cells. *Frontiers in Public Health, section Epidemiology*. **6**: 369.
<https://www.frontiersin.org/articles/10.3389/fpubh.2018.00369/full>
32. Jason Stout, +Yanjue Wu, Christine Ho, April Pettit, Pei-Jean Feng, Dolly Katz, Smita Ghosh, Thara Venkatappa, **Ruiyan Luo**, Tuberculosis Epidemiologic Studies

- Consortium. (2018) Evaluating Latent Tuberculosis Infection Diagnostics Using Latent Class Analysis. *Thorax*. **73(11)**: 1062–1072.
<https://thorax.bmj.com/content/73/11/1062>
33. Christine Stauber, Ellis Adjei Adams, Richard Rothenberg, Dajun Dai, Ruiyan Luo, Scott Weaver, Amit Prasad, Megumi Kano, John Heath. (2018) Measuring the impact of environment on the health of large cities. *Int. J. Environ. Res. Public Health*. **15(6)**, 1216.
<https://www.mdpi.com/1660-4601/15/6/1216>
34. +Kristina Theis, Douglas Roblin, Charles Helmick, **Ruiyan Luo** (2018) Employment Exit and Entry among U.S. Adults with and without Arthritis during the Great Recession, a Longitudinal Study: 2007-2009: NHIS/MEPS. *WORK*. **60(2)**: 303-318.
<https://doi.org/10.3233/WOR-182739>
35. +Kristina Theis, Doug Roblin, Charles Helmick, **Ruiyan Luo**. (2018) Prevalence and Causes of Work Disability among Working-Age U.S. Adults, 2011-2013, NHIS. *Disability and Health Journal*. **11(1)**: 108-115.
<https://doi.org/10.1016/j.dhjo.2017.04.010>
36. **Ruiyan Luo**, and Xin Qi (2017) Asymptotic optimality of sparse linear discriminant analysis with arbitrary number of classes. *Scandinavian Journal of Statistics*. **44(3)**: 598-616.
<https://onlinelibrary.wiley.com/doi/10.1111/sjos.12267>
37. **Ruiyan Luo**, and Xin Qi (2017) Function-on-function linear regression by signal compression. *Journal of American Statistical Association*. **112(518)**: 690-705.
<https://doi.org/10.1080/01621459.2016.1164053>
38. +David Melton, **Ruiyan Luo**, Brett Wong, Ivan Spasojevic, Lynne Wagenknecht, Ralph D'Agostino, Dora Il'yasova (2017) Urinary F2-Isoprostanes and the Risk of Hypertension. *Annals of Epidemiology*. **27(6)**: 391-396.
<https://doi.org/10.1016/j.annepidem.2017.05.005>
39. **Ruiyan Luo**, and Xin Qi (2017) Signal extraction approach for sparse multivariate response regression. *Journal of Multivariate Analysis*. **153**: 83-97.
<https://doi.org/10.1016/j.jmva.2016.09.005>
40. Dajun Dai, Richard Rothenberg, **Ruiyan Luo**, Scott Weaver, and Christine Stauber (2017) Improvement of Geographic Disparities: Amelioration or Displacement? *Journal of Urban Health*. **94(3)**: 417-428.
<https://doi.org/10.1007/s11524-017-0151-4>

41. Roshni Srivastava, Praveen Mannam, Navin Rauniyar, TuKiet T Lam, **Ruiyan Luo**, Patty J Lee, Anup Srivastava (2017) Proteomics data on MAP Kinase Kinase 3 knock out bone marrow derived macrophages exposed to cigarette smoke extract. *Data Article* 13:320-325.
<https://doi.org/10.1016/j.dib.2017.05.049>
42. Haley DF, Linton S, **Ruiyan Luo**, Hunter-Jones J, Adimora AA, Wingood GM, Bonney L, Ross Z, Cooper HLF. (2017) Public Housing Relocations and Relationships of Changes in Neighborhood Disadvantage and Transportation Access to Unmet Need for Medical Care. *J Health Care Poor Underserved* 28(1): 315-28.
<https://doi.org/10.1353/hpu.2017.0026>
43. **Ruiyan Luo**, and Xin Qi (2016) Functional wavelet regression for function-on-function linear models. *Electronic Journal of Statistics*. **10(2)**: 3179-3216.
<https://doi.org/10.1214/16-EJS1204>
44. Praveen Mannam, Navin Rauniyar, TuKiet T. Lam, **Ruiyan Luo**, Patty J Lee, Anup Srivastava. (2016) MKK3 influences mitophagy and is involved in cigarette smoke induced COPD. *Free Radical Biology and Medicine*. **101**: 102-115.
<https://doi.org/10.1016/j.freeradbiomed.2016.10.001>
45. Hannah LF Cooper, Loida Bonney, **Ruiyan Luo**, Danielle F. Haley, Sabriya Linton, Josalin Hunter-Jones, Zev Ross, Gina M. Wingood, Adaora A. Adimora, and Richard Rothenberg (2016) Public Housing Relocations and Partnership Dynamics in Areas with High Prevalences of Sexually Transmitted Infections. *Sexually Transmitted Diseases*. **43(4)**: 222-230.
<https://doi.org/10.1097/OLQ.0000000000000419>
46. Sabriya L. Linton, Hannah LF Cooper, **Ruiyan Luo**, Conny Karnes, Kristen Renneker, Danielle F. Haley, Emily F. Dauria et al. (2016) Changing places and partners: associations of neighborhood conditions with sexual network turnover among African American adults relocated from public housing. *Archives of Sexual Behavior*. 1-12.
<https://doi.org/10.1007/s10508-015-0687-x>
47. Shuzhao Li, Andrei Todor, and **Ruiyan Luo**. (2016) Blood transcriptomics and metabolomics for personalized medicine. *Computational and Structural Biotechnology Journal*. **14**: 1-7.
<https://doi.org/10.1016/j.csbj.2015.10.005>
48. Sabriya L. Linton, Hannah LF Cooper, **Ruiyan Luo**, Conny Karnes, Kristen Renneker, Danielle F. Haley, Josalin Hunter-Jones, Zev Ross, Loida Bonney, and Richard

- Rothenberg. (2016) People and places: relocating to neighborhoods with better economic and social conditions is associated with less risky drug/alcohol network characteristics among African American adults in Atlanta, GA. *Drug and Alcohol Dependence*. **160**: 30-41.
<https://doi.org/10.1016/j.drugalcdep.2015.11.036>
49. **Ruiyan Luo**, and Xin Qi (2015) Sparse wavelet regression for multiple predictive curves. *Journal of Multivariate Analysis*. **134**: 33-49.
<https://doi.org/10.1016/j.jmva.2014.10.003>
50. Xin Qi, and **Ruiyan Luo** (2015) Sparse principal component analysis in Hilbert space. *Scandinavian Journal of Statistics*. **42**: 270-289.
<https://doi.org/10.1111/sjos.12106>
51. Xin Qi, **Ruiyan Luo**, Raymond J. Carroll, and Hongyu Zhao (2015) Sparse regression by projection and sparse discriminant analysis. *Journal of Computational and Graphical Statistics*. **24(2)**: 416-438.
<https://doi.org/10.1080/10618600.2014.907094>
52. +Charles D Melton, Ruiyan Luo, Brett Wong, Ralph B Dagostino, Jr., Lynne E Wagenknecht (2015) Prospective association between oxidative status and hypertension. *American College of Epidemiology* **25(9)**: 706.
<https://doi.org/10.1016/j.annepidem.2015.06.025>
53. Meiyong Zhu, Jiang Li, Zhiyuan Li, Wei Luo, Dajun Dai, Scott R. Weaver, Christine Stauber, **Ruiyan Luo**, and Hua Fu (2015) Mortality rates and the causes of death related to diabetes mellitus in Shanghai Songjiang District: an 11-year retrospective analysis of death certificates. *BMC Endocrine Disorders*: 15:45.
<https://doi.org/10.1186/s12902-015-0042-1>
54. Zhengjia Chen, +Ye Cui, Taofeek K Owonikoko, Zhibo Wang, Zheng Li, **Ruiyan Luo**, Michael Kutner, Fadlo R Khuri, Jeanne Kowalski (2014) Escalation with Overdose Control using All Toxicities and Time to Event Toxicity Data in Cancer Phase I Clinical Trials. *Contemporary Clinical Trial*. **37(2)**: 322-332.
<https://doi.org/10.1016/j.cct.2014.02.004>
55. Xin Qi, **Ruiyan Luo** and Hongyu Zhao (2013) Sparse principal component analysis by choice of norm. *Journal of Multivariate Analysis*. **114**: 127-160.
<https://doi.org/10.1016/j.jmva.2012.07.004>
56. Anita M. Nucci, Caitlin Sundby Russell, **Ruiyan Luo**, Vijay Ganji, Flora Olabopo, Barbara Hopkins, Michael F. Holick, and Kumaravel Rajakumar (2013) The Effectiveness of a Short Food Frequency Questionnaire in Determining Vitamin D Intake in

- Children. *Dermato-Endocrinology*. **5(1)**: 1-6.
<https://doi.org/10.4161/derm.24389>
57. **Ruiyan Luo** and Hongyu Zhao (2012) Protein quantitation using iTRAQ: review on the sources of variations and analysis of nonrandom missingness. *Statistics and Its Interface*. **5(1)**: 99-107.
<https://doi.org/10.4310/sii.2012.v5.n1.a9>
58. **Ruiyan Luo** and Hongyu Zhao (2011) Bayesian hierarchical modeling for signaling pathway inference from single cell interventional data. *Annals of Applied Statistics*. **5(2A)**: 725-745.
<https://doi.org/10.1214/10-AOAS425>
59. Alberto Davalos, Carlos Fernandez-Hernando, Grzegorz Sowa, Behrad Derakhshan, Michelle I. Lin, Ji Y. Lee, Hongyu Zhao, **Ruiyan Luo**, Christopher Colangelo, and William C. Sessa (2010) Quantitative proteomics of caveolin-1 regulated proteins: Characterization of PTRF/Cavin-1 in endothelial cells. *Molecular & Cellular Proteomics*. **9(10)**: 2109-2124.
<https://doi.org/10.1074/mcp.M110.001289>
60. **Ruiyan Luo**, Christopher M. Colangelo, William C. Sessa, and Hongyu Zhao (2009) Bayesian analysis of iTRAQ data with nonrandom missingness: identification of differentially expressed proteins. *Statistics in Biosciences*. **1(2)**: 228-245.
<https://doi.org/10.1007/s12561-009-9013-2>
61. **Ruiyan Luo** and Bret Larget (2009) Modeling substitution and indel processes for AFLP marker evolution and phylogenetic inference. *Annals of Applied Statistics*. **3(1)**: 222-248.
<https://doi.org/10.1214/08-AOAS212>
62. **Ruiyan Luo**, Andrew L. Hipp, and Bret Larget (2007). A Bayesian model of AFLP marker evolution and phylogenetic inference. *Statistical Applications in Genetics and Molecular Biology*. **6**, Article 11.
<https://doi.org/10.2202/1544-6115.1152>
63. Xiaoguang Yang, **Ruiyan Luo**, and Zhiping Feng (2007) Using amino acid and peptide composition to predict membrane protein types. *Biochemical and Biophysical Research Communications*. **353(1)**: 164-169.
<https://doi.org/10.1016/j.bbrc.2006.12.004>
64. **Ruiyan Luo**, Zhiping Feng, and Jiakun Liu. (2002) Prediction of protein structural class by amino acid and polypeptide composition. *European Journal of Biochemistry*.

269: 4219-4225.

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BOOKCHAPTER and HANDBOOKS

1. Gerardo Chowell, Richard Rothenberg, Kimberlyn Roosa, Amna Tariq, James M. Hyman, **Ruiyan Luo** (2022). Sub-epidemic model forecasts for COVID-19 pandemic spread in the USA and European hotspots, February-May 2020. Published in *Mathematics of Public Health*. Publisher: Springer International Publishing.
<https://www.springerprofessional.de/en/sub-epidemic-model-forecasts-during-the-first-wave-of-the-covid-/20114822>
2. Christine Stauber, Dajun Dai, Rich Rothenberg, Scott Weaver, **Ruiyan Luo**. (2015) Comparison of Cities using the Urban Health Index: An Analysis of Demographic and Health Survey Data from 2003-2013. Report submitted to the World Health Organization–Kobe Centre for Health Development.
3. Scott R Weaver, Dajun Dai, Christine Stauber, **Ruiyan Luo**, Richard Rothenberg. (2014) The Urban Health Index: A handbook for its calculation and use. ISBN: 9789241507806.
http://www.who.int/kobe_centre/publications/UHI_Handbook.pdf.

SCHOLARLY PRODUCTS: SOFTWARE

Available on web page <http://sites.gsu.edu/rluo/software/>

1. **Ruiyan Luo**, Xin Qi. R package: FRegSigComp: signal compression for function-on-function regression models. <https://cran.r-project.org/web/packages/FRegSigCom/index.html> (2018)
2. **Ruiyan Luo**, Xin Qi. R package: SiER: signal extraction for multivariate linear regression models. <https://cran.r-project.org/web/packages/SiER/index.html> (2017)
3. **Ruiyan Luo**, Xin Qi. wSigComp: wavelet-based signal compression for function-on-function regression models (2016)
4. Scott R Weaver, Dajun Dai, Christine Stauber, **Ruiyan Luo**, Richard Rothenberg. (2014) Calculating the Urban Health Index (UHI).

5. **Ruiyan Luo**, Hongyu Zhao. Bayesian hierarchical modeling for signaling pathway inference (2010)
6. **Ruiyan Luo**, Hongyu Zhao. Bayesian analysis of iTRAQ data (2009)
7. **Ruiyan Luo**, Bret Larget. AFLP marker evolution and phylogenetic inference: general and restricted definitions for loci (2007)

PRESENTATIONS

1. “On the stable estimation of disease parameters and forecasting in epidemiology” at IMA/UHG WIMB workshop 2022, Minneapolis, MN, 6/20/2022.
2. (Virtual) “Modeling spiky functions with derivatives of smooth functions in function-on-function regression” at EcoStat 2022 (Hybrid Conference) Kyoto, Japan, 6/3/2022.
3. (Invited) “Modeling spiky functions with derivatives of smooth functions in function-on-function regression” at Georgia Statistics Day, Atlanta, GA, 10/11/2021.
4. (Virtual) “Modeling Spiky Functional Data with Derivatives of Smooth Functions in Function-On-Function Regression” at JSM (Virtual Conference), 8/6/2020
5. (Invited) “Restricted Function-On-Function Regression” at Department of Biostatistics Columbia University, 10/31/2019
6. “Historical and Restricted Function-On-Function Regression Models” at JSM, Denver, CO, 7/28/2019.
7. “Functional Regression for Highly Densely Observed Data with Novel Regularization” at JSM, Denver, CO, 7/28/2019.
8. (Invited) “Functional Regression for Highly Densely Observed Data with Novel Regularization” at ICSA, Raleigh, NC 6/10/2019.
9. (Invited) “Historical and Restricted Function-On-Function Regression Models” at ICSA, Raleigh, NC 6/10/2019.
10. “Interaction and Model Selection for Function-On-Function Regression” at JSM, Baltimore, MA, August 1, 2017.
11. (Invited) “Function-on-function regression for highly densely observed spiky functional data” at Chinese Academy of Science, Beijing China, June 19, 2017.

12. (Invited) “Function-on-function regression for highly densely observed spiky functional data” at EcoSta 2017, Hongkong, China, June 15, 2017.
13. (Invited) “Function-on-function regression for highly densely observed spiky functional data” at Nankai University, Tianjin China, June 12, 2017.
14. (Invited) “Function-on-function regression with thousands of predictive curves” at Tianjin Medical University School of public health, Tianjin China, June 12, 2017.
15. (Invited) “Function-on-function regression with thousands of predictive curves” at Center for statistical science at Peiking University, Beijing China, May 25, 2017.
16. (Invited) “Function-on-function regression for highly densely observed spiky functional data” at the Department of Mathematics and Statistics, Auburn University, November 18, 2016.
17. “Scalars-on-function linear regression with large number of functional predictors” at JSM, Chicago, IL, August 1, 2016.
18. “Nonlinear function on function regression with multiple prediction curves” at JSM, Chicago, IL, August 1, 2016.
19. “Function on function regression with thousands of predictive curves.” at ICSA 2016 symposium, Atlanta, GA, June, 2016.
20. (Invited) “Functional Regression with Functional Response by Signal Compression” at the Department of Mathematics and Statistics, GSU, Atlanta, January 2015.
21. “Functional Regression with Functional Response by Signal Compression” at 2015 JSM, Seattle, WA, August 11, 2015.
22. “Functional Regression with Functional Response by Signal Compression” at ICSA 7, Atlanta, GA, May 30, 2015.
23. “A Sparse Linear Discriminant Analysis Method with Asymptotic Optimality for Multiclass Classification” at 2014 ICSA-KISS Applied Statistics Symposium, Portland, OR, June 17, 2014.
24. (Invited) “Introduction to Bayesian Statistics” at CDC, Atlanta, GA, May 20, 2013.
25. “Sparse regression by projection” at the 27th New England Statistical Symposium, University of Connecticut, April 27, 2013.
26. “Biological Network Inference from Genomics Data ” at ICSA 2012 symposium, Boston, MA, June 25, 2012.

27. “Inference and analysis of biological networks” at the Department of Mathematics and Statistics, Georgia State University, Atlanta, GA, February 13, 2012.
28. (Invited) “Sparse PCA and PLS by choice of norm” at the Department of Biostatistics and Bioinformatics, Emory University, Atlanta, GA, October 20, 2011.
29. (Invited) “Bayesian hierarchical modeling for signaling pathway inference” at the Department of Biostatistics and Bioinformatics (Bioinformatics group meeting), Emory University, Atlanta, GA, April 22, 2011.
30. “Bayesian hierarchical models in proteomics studies” at the Department of Mathematics and Statistics, Georgia State University, Atlanta, GA, September 3, 2010.
31. “Bayesian hierarchical modeling for signaling pathway inference” at the Department of Mathematics and Statistics, Georgia State University, Atlanta, GA, May 25, 2010.
32. (Invited) “Bayesian hierarchical modeling for signaling pathway inference” at the Department of Mathematics and Statistics, University of New Mexico, Albuquerque, NM, May 3, 2010.
33. (Invited) “Bayesian hierarchical modeling for signaling pathway inference” at the Department of Statistics, Kentucky University, Lexington, KY, January 26, 2010.
34. “Bayesian analysis of iTRAQ data with nonrandom missing” at the Joint Statistical Meetings, Washington DC, August 4, 2009.
35. “Bayesian analysis of iTRAQ data with nonrandom missing: Identification of differentially expressed proteins” at the 13th NHLBI Proteomics Investigator Meeting, Texas, April 16, 2009.
36. “Sub-ID: A model of AFLP evolution and its use in Bayesian estimation of phylogenies” at the Department of Epidemiology and Public Health, Yale University, April 3, 2007.
37. “Sub-ID: A model of AFLP evolution and its use in Bayesian estimation of phylogenies” at the Department of Statistics, Chicago University, January, 2007.
38. “A model of AFLP Evolution and its use in Bayesian estimation of phylogenies” at the Joint Statistical Meetings, Seattle, August 9, 2006.
39. (Invited) “Bayesian modelling of AFLP data for phylogenetic inference” at the Department of Botany, University of Wisconsin–Madison, March 30, 2006.
40. “A Bayesian modeling of AFLP data and phylogenetic inference” at the Joint Statistical Meetings, Minneapolis, August 11, 2005.

POSTERS and ABSTRACTS +Graduate student

1. Alejandra D Herrera Reyes, Alexandra B Smirnova, Ruiyan Luo Yena Kim (2023) “Parameter Estimation for COVID-19 SVIRD Model Using Predictor-Corrector Algorithm,” in Biology and Medicine” at Mathematics Conference
2. +Tsira Chakhaia¹, Christine Stauber, Henry M Blumberg, Russell R Kempker, Ruiyan Luo, Leila Goginashvili, Lali Mikeladze, Nino Dzidzikashvili, Nestan Tukvadze, Zaza Avaliani, Matthew J Magee (2022) “Low body mass index is associated with increased risk of poor tuberculosis outcomes among patients treated for drug-resistant tuberculosis in Georgia, 2009-2019” at Union World Conference on Lung Health 2022.
3. Chen, M.-L., Burgess, E. O., Chao, Y.-Y., Gardenhire, D. S., Luo, R. (Published) (2020). Effects of Resistance Exercise on Mental Health in Older Chinese Americans: A Randomized Controlled Trial. (S1 ed., vol. 4, pp. 187). Innovation in Aging.
4. +Alexandria R. Mitchell, Melissa Coughlin, Matthew Hayat, **Ruiyan Luo**, Paul A. Rota, Bettina Bankamp, “Evaluating a Measles and Rubella Multiplex Bead Assay for countries in the WHO Global LabNet using a Multilevel Modeling Framework” at the 15th Southeastern Regional Virology Conference, Atlanta, GA, March 16-18, 2018.
5. Matt Hayat, Betty Lai, **Ruiyan Luo**, Scott Weaver, Katherine Masyn, “Guidelines for assessment and instruction in statistics education (GAISE): Extending GAISE into public health education” at the Center for Instructional Effectiveness 6th Annual Conference on Scholarly Teaching, Atlanta, GA, 2016.
6. Dajun Dai, **Ruiyan Luo**, “Examining Progress of Urban Disparities in Social Determinants of Health – A Case Study of Atlanta, Georgia” at the Workshop on Health, Wellbeing and Geography, Hong Kong, May 19, 2015.
7. Sophia Linton, Hannah Cooper, **Ruiyan Luo**, Conny Karnes, Kristen Renneker, Danielle Haley, Josalin Hunter-Jones, Zev Ross, Loida Bonney, Rich Rothenberg. “People and places: relocating to neighborhoods with better economic and social conditions is associated with less risky drug/alcohol network characteristics among adults in Atlanta, GA”. 48th meeting of the Society for Epidemiologic Research (2015). Denver, CO.
8. Sabriya Linton, Hannah Cooper, **Ruiyan Luo**, Conny Karnes, Kristen Renneker, Danielle Haley, Emily Dauria, Josalin Hunter-Jones, Zev Ross, Wingood G, Adimora A, Loida Bonney, Rich Rothenberg. “Relationships between improvements in neighborhood conditions and sexual network dynamics among adults relocating from public housing”. 8th Conference on HIV Pathogenesis, Treatment & Prevention of the International AIDS Society (2015). Vancouver, BC, Canada.

9. +Kristina A. Theis, Douglas Roblin, C.G. Helmick, **Ruiyan Luo**. “Sex differences and similarities in reporting musculoskeletal conditions as common causes of work disability”. The 2015 Work, Stress, and Health Conference. Atlanta, GA (2015)
10. +Sophia A. Banton, **Ruiyan Luo**, Shuzhao Li. “Epidemiological analysis of mixed chemical exposure using structural equation models”. NIEHS Workshop Statistical Approaches for Assessing Health Effects of Environmental Chemical Mixtures in Epidemiology Studies, July 13 & 14, 2015; NIEHS Main Campus, Rodbell A, B, & C, Research Triangle Park, North Carolina, USA.
11. Christine Stauber, MS Natividade, Scott Weaver, Dajun Dai, **Ruiyan Luo**, Rich Rothenberg, M, Kano, A. Prasad, ML Barreto, EA Mota. “Examining Social Determinants of Health in Salvador, Bahia, Brazil”. Presentation at International Symposium on Minority Health and Health Disparities (ISMHHD), National Harbor, Maryland. (2014)
12. +Ye Cui, Zhengjia Chen, Zhibo Wang, **Ruiyan Luo**, and FR Khuri. “Time-to-Event Dose Escalation with Overdose Control Method using Continuous Toxicity Scores”. Workshop on 2nd Biostatistics and Bioinformatics, Department of Mathematics and Statistics, GSU, 2013.
13. +Yichao Yin, and **Ruiyan Luo** “Identification of Differential Gene Pathways with Sparse Principal Component Analysis”. 2nd Workshop on Biostatistics and Bioinformatics, Department of Mathematics and Statistics, GSU, 2013.

GRANTS

- Funded

1. Co-PI, SubAward from *Early Periodontal Health Impacts of Electronic Nicotine Delivery System (ENDS) Usage* \$624,010, from NIH (1R56DE031814-01). PIs: Wright/Shannahan. 10/01/2022 – 09/30/2023.
2. Co-Investigator, *Effect of a Humanoid Robot with Virtual Reality Games to Train Arm Function in Children with Cerebral Palsy* \$599,724, from National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) (FIP: Minority-Serving Institution (MSI)- Research: Health and Function) (90IFST0009) . PI: Yu-Ping Chen. 09/01/2022 – 08/31/2025.
3. Board member, Data Safety Monitoring Board, *Motor learning of fall resistant skills from laboratory-induced falling among people with Alzheimer’s disease*, \$429,000, from NIA (1R21 AG077307). PI: Feng Yang. 7/1/2022-6/30/2024 (tentative).

4. Co-Investigator, *Role of early motor experience in infants with Down syndrome*, \$429,000, from NIH (1R21 HD105879-01). PI: Jianhua Wu. 9/8/2021-8/31/2023.
5. Co-Investigator, *African American Susceptibility to Periodontal Disease due to Electronic Nicotine Delivery Systems (ENDS) Usage*, \$385,493, from NIH (1R56 DE029950 - 01A1) . PIs: Wright/Shannahan. 9/3/2021-8/31/2022.
6. Co-Investigator, *Adaptive motor learning of fall resistance skills through slip exposure in multiple sclerosis*, \$54,483, from National Multiple Sclerosis Society (NMSS). PI: Feng Yang. 10/1/2019-9/30/2020.
7. Co-Investigator, *The Impact of Design Characteristics on the Modification Potential of Electronic Nicotine Delivery Systems*, \$1,295,619, from NIH (R01 DA047397). PIs: Popova/Ashley. 9/01/2018 – 8/31/2022.
8. Co-Investigator, *Effects of Resistance Exercise Training in Community-Dwelling Older Chinese Americans*, \$7,000, from Lewis College Intramural Grant Program. PI: Mei-Lan Chen. 2017-2018.
9. Co-Investigator, *Effectiveness of functional strength training in virtual reality games for improving arm function in children with cerebral palsy – A pilot Sequential Multiple Assignment Randomized Trial (SMART) Design*, \$25,000, from the Healthcare Innovation Program in collaboration with the Atlanta Clinical & Translational Science Institute and Georgia State University (HIP-ACTSI-GSU Seed Grant). PI: Yuping Chen. 2/1/2016 – 1/31/2017.
10. Co-PI, *Establish a tripartite collaboration between Georgia State, Hong Kong Baptist University and the University of Cape Town, South Africa*, \$10,000, from Georgia State University Tripartite Collaboration (Hong Kong, South Africa). PI: Richard Rothenberg. 12/15/2014–6/15/2015.
11. Co-Investigator, *Urban Health Index Mega-City Project*, \$50,000, from WHO, Center for Health Development, Kobe, Japan. PI: Christine Stauber. 8/18/2014-5/31/2015.
12. Co-Investigator, *Public housing relocations: Impact on HIV risk and drug use*, \$2,953,708, from NIH (R01DA029513-04). PI: Hannah Cooper. Subcontract: The construct and interpret analytic models that test hypotheses about the relationships of changes in neighborhood and network characteristics to changes in sexual health and substance use (S507907), \$80,249. 6/1/2014–5/30/2015.
13. Co-Investigator, *Development of an Urban Health Index Toolkit*, \$25,000, from WHO, Center for Health Development, Kobe, Japan. PI: Scott Weaver. 12/15/2013–6/30/2014.
14. Co-Investigator, *Evaluation of nutrition strategies to achieve enteral autonomy in children with short bowel syndrome*, from Georgia State University. PI: Anita M

Nucci. 11/01/2013-06/30/2014.

15. Co-Investigator, *Transnational comparison of Urban Health Indicators and Indices*, \$84,000, from Georgia State University Research initiation cities grant. PI: Richard Rothenberg. 07/01/2013-06/30/2014.
16. Principal Investigator, *Hierarchical model for identification of condition-specific networks*, \$7,000, from the Cleon C. Arrington Research Initiation Grant Program (URSA Internal Grants). 07/01/2011–06/30/2012.

- Pending

1. Co-Investigator, *Early motor and language development in infants with Down syndrome*, \$442,039, from NIH. PI: Jianhua Wu.
2. Co-Investigator, *Analysis of fat distribution affecting fall risk in older adults with obesity*, \$429,000, from NIH. PI: Feng Yang.
3. Co-Investigator, *Effect of congenital heart defects on physical activity, sleep, and anxiety in youth with Down syndrome*, \$443,319, from NIH PI: Jianhua Wu.
4. PI, *Functional Universal Approximation Theorem and General Nonlinear Function-on-Function Regression*, \$307,765, from NSF.
5. Co-Investigator, *Effect of congenital heart defects on youth with Down syndrome*, \$443,319, from NIH.
6. Co-Investigator, *Theme 4: NSF AI Institute for Research in Decision Making for Resilient Human-centered Systems (AI-RHS)*, \$1,595,748, from NSF.

COURSES TAUGHT

- Regular course (Teaching load: 2 courses/semester) ** NEW course
1. ** Applied Correlation and Regression (PHPH8170) in Spring 2013.
 2. Applied Multivariate Statistics (STAT 8090), in Fall 2011.
 3. Biostatistics (MATH4544/6544 & BIOL4744/6744), in Fall 2010.
 4. ** Biostatistics II (PHPH8027) in Fall 2012, Fall 2013, Fall 2014.
 5. ** Categorical data analysis (PHPH7029) in Spring 2014, Spring 2015, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021.
 6. Elementary Statistics (MATH1070), in Spring 2011, Spring 2012.
 7. ** Fundamentals of Biostatistics II (PHPH7027), in Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Fall 2020, Spring 2021 (2 sections), Spring 2022 (2 sections).

8. Mathematical Statistics I (MATH4751/6751), in Spring 2011, Fall 2011.
 9. Public Health Biostatistics (PHPH7017) in Spring 2013.
 10. ** Special Topics in Biostatistics—Introduction to Bayesian Statistics (PHPH8890) in Spring 2020, Fall 2021.
 11. ** Topics of Inference in Biostatistics (PHPH7028) in Fall 2013, Fall 2014.
- Directed reading (PHPH8910)
 1. Statistical programming with R, Summer 2010.
 2. Using classification methods for analysis of public health data, Fall 2014.
 3. Investigating advanced methodologies in assessing drug overdose surveillance, Summer 2022, Fall 2022.
 4. Application of functional data analysis and Bayesian analysis using publicly available data on COVID-19 deaths from Mexico, Summer 2022, Fall 2022.
 - Guest lecture
 1. Introduction to power analysis (2020 Spring, 2021 Spring, 2022 Spring). Department of Kinesiology and Health
 2. Introduction to Bayesian Statistics (2016 Spring, 2017 Spring, 2018 Spring, 2019 Spring, 2019 Fall, 2021 Spring) in PHPH8830
 3. Introduction to high dimensional data analysis (2016 Spring, 2017 Spring) in PHPH8830
 4. Brief Introduction to Functional Data (2022 Spring) GSU SPH Meta Series 8

THESIS/DISSERTATION SUPERVISION

(23 committee chairs, 52 committee members)

- Chair for the dissertation committee (Department of Mathematics and Statistics):
 1. David Yankey (2011 Fall–2018 Spring): “An Estimation of County-Level Vaccination Coverage for Human Papillomavirus Vaccine Among Adolescents Aged 13-17 Years in South Eastern United States of America Using Bayesian and Spatial Effects Models”.
 2. Israel Hora (2011 Fall–2017 Spring): “Estimation of County-level Diabetes Prevalence using Bayesian Hierarchical Model”.
 3. Ye Cui (2013 Spring): “Advanced Designs of Phase I and Phase II Cancer Clinical Trials”. Awarded Dissertation Grant of FY 2013 at Georgia State University.

- Chair for the thesis committee (School of Public Health):
 1. Bridget Bassett (2022 Summer-Fall): “Modifiable and Non-modifiable factors associated with DKA among children and adolescents with Type 1 diabetes: A machine learning exploration using the T1D Exchange data set”.
 2. Grace Eau (2022 Spring–Summer): “Effect of Marijuana Legalization on marijuana use and days of marijuana use”.
 3. Lauren A. Powell (2022 Spring): “The Association between Overweight/obesity among Children and Selected Social and Economic Predictors”.
 4. Mira Shah (2021 Spring): “Analysis of Loss of Work During the COVID-19 Pandemic in the United States”.
 5. Vinay Rudresh (2020 Spring): “Associations Between Depression and Blood Pressure Among United States Adults: A Bayesian vs Frequentist Approach”
 6. Bayan Almohaimed (2019 Fall): “Investigating the oral health of individuals with depression: finding from the 2015-2016 national health and nutrition examination survey (NHANES)”.
 7. Herschel Wellington Smith IV (2019 Spring): “Community-level Correlates of Crime Rates in Rhode Island”.
 8. Circe McDonald (2017 Spring): “Preprocessing strategies for multiplex bead assay data for use in quantitative trait loci analysis”.
 9. Nerline Jacques (2017 Spring): “Effects of family history on glucose metabolism among mild cognitive impaired patients: a longitudinal study”. Zainab Salah (2017 Spring): “Predicting Alzheimer disease status using high-dimensional MRI data based on Lasso constrained generalized linear models”.
 10. Tejal Vashi (2017 Spring): “Predicting Alzheimer disease status based on MRI brain scans using sparse principal component analysis”.
 11. Aastha Vashist (2016 Fall): “Genetic differentiation of oral and oropharyngeal carcinoma based on Human Papillomavirus Status and Race”.
 12. Garrett W. Mahon (2016 Fall): “Analysis of Suicides across Geographical and Spatial Differences: A comparison of suicide rates between Urban and Rural populations in Georgia”.
 13. Nicholas Johnson (2016 Spring): “ Modeling non-linear relationships between DNA methylation and age: the application of regularization methods to predict human age and the implication of DNA methylation in immunosenescence”.
 14. Zanju Wang (2015 Spring): “Latent Tuberculosis Infection among Immigrant and Refugee Children Aged 2-14 Years Who Arrived in the United States in 2008-2012”.

15. Sophia Banton (2015 Summer): “Pathway group lasso for integrating metabolomics and transcriptomics”.
 16. Yanjue Wu (2014 Fall): “Asthma Related with Vog Exposure in Schoolchildren on Hawaii Island”.
 17. David Yankey (2014 Fall): “Study of human papillomavirus vaccination status in US”.
 18. Everett Allen (2013 Spring): “An Investigation of Perceived Stress on Cardiovascular Health over time measured by Ultrasound Carotid IMT”.
- Chair for the thesis committee (Department of Mathematics and Statistics):
 1. Benjamin Fredua (2015 Spring), “Multinomial logistic regression analysis of varicella vaccination-2011 national immunization survey (NIS) – teen survey data”.
 2. Yichao Yin (2013 Spring), “Identification of differential gene pathways with sparse principal component analysis”.
 3. Laura Vezquez (2012 Spring), “Sparse uncorrelated canonical correlation analysis”.
 - Dissertation committee member (School of Public Health):
 1. Sushma Dahal (2023 Spring) “Application of epidemiologic methods to investigate the heterogenous impact of COVID-19”
 2. Tsira Chakhaia (2022–2023 Spring) “Relationships between body mass index, adipose distribution, and tuberculosis treatment outcomes among patients in Georgia”
 3. Amna Tariq (2022 Spring) “Comparative assessment of methodology to forecast and assess the transmission potential of epidemics/pandemics”.
 4. Renee White (2021 Fall) “Public Health and Economic Implications of Non-Pharmaceutical Interventions in the state of Georgia”.
 5. Payal Suresh Shah (2017-2020 Summer) “Hypoglycemia in the Hospital in U.S. Population”.
 6. Kimberlyn Roosa (2020 Summer) “Computational assessment of epidemiological models for analyzing and forecasting infectious disease outbreaks”.
 7. Lynnette A. Ametewee (2019 Fall), “An Epidemiology of Adolescent Obesity in Latin America and the Caribbean”.
 8. Tracy L Ayers (2016 Spring), “Machine learning approaches for assessing moderate-to-severe diarrhea in children < 5 years of age, rural western Kenya 2008-2012”.

9. Kristina A. Theis (2014 Fall), “Arthritis Impact on Employment Participation among U.S. Adults: A Population-Based Perspective”.
- Dissertation committee member (Department of Computer Science):
 1. Madhuri Siddula (2020 Summer) “Privacy preserving user data publication in social networks”.
 2. Yan Huang (2019 Summer), “Game theory based privacy protection for context-aware services”.
 - Dissertation committee member (Department of Mathematics and Statistics):
 1. Weimin Liu (2021 Fall), “Analysis of Risk and Fund Performance”.
 2. Yan Cai (2020 Fall), “Novel estimation methods for sensitivity and AUC in medical diagnostic study”.
 3. Xinjie Hu (2020 Summer) “Some novel interval estimation methods”.
 4. Husneara Rahman (2019 Fall), “Novel nonparametric methods in functional time series and diagnostic medicine”.
 5. Guan hao Wei (2019 Fall), “Novel statistical methods for censored medical cost and breast cancer data”.
 6. Jenny Jeyarajah (2016 Fall), “Constructing empirical likelihood confidence intervals for medical cost data with censored observations”.
 7. Jing Wang (2016 Fall), “Functional principal component analysis for discretely observed functional data & Sparse Fisher’s discriminant analysis with thresholded linear constraints”.
 8. Chenxue Li (2016 Summer), “Some novel statistical inferences”.
 9. Xiaoyuan Wang (2014 Fall), “Data mining analysis of the parkinson’s disease”.
 10. Yanhong Wang (2013 Fall), “Clustering, classification, and factor analysis in high dimensional data analysis”.
 11. Haochuan Zhou (2011 Fall), “Statistical inferences for the Youden index”.
 - Thesis committee member (School of Public Health):
 1. Kamilla Bonnesen (2022) “Climate Impacts on Sexual Violence: a Bayesian Comparison of Undergraduate and Community Colleges”.
 2. De Gao (2020 Fall-2021 Summer) “Levels of Engagement in a Comprehensive Parenting Intervention to Reduce Child Neglect Among Mothers without a High School Diploma: A Profile Examination”.

3. Harris Bejdic (2021 Spring) “Toxicological Characterization of Traffic-Related Air Pollution in Five Distinct Atlanta Locations”.
4. Jia Wang (2021 Spring-Summer) “Exploratory epidemiological approaches to determine the representativeness of children with likely developmental disabilities and delays served by state early intervention and special education systems”.
5. Amanda Chernishkin (2020 Summer) “Identifying Influential Variables In The Prediction Of Type 2 Diabetes Using Machine Learning Methods”.
6. Mohamed Salieu Bah (2020 Spring) “The Relationship Between Malaria Status in Under-five Children and Some Household Demographic, Socioeconomic and Environmental Factors Associated with the Disease in Sierra Leone”.
7. Bayan Ali M Almohaimeed (2019 Fall) “Investigating Oral Health among Individuals with Depression: NHANES 2015-2016”.
8. Shalay Williamson (2019 Fall) “Does Oxidative Status Predict Progress in Sub-clinical Atherosclerosis: An Analysis of the Insulin Resistance Atherosclerosis Study”.
9. Smriti Khare (2019 Fall) “Stillbirth risk during the 1918 Influenza Pandemic in Arizona, USA”.
10. Brenda Ruiz (2019 Spring), “The association between periodontal disease and metabolic syndrome among united states adults: analysis of NHANES 2013-2014”.
11. Herschel Wellington Smith IV (2019 Spring), “Community-level Correlates of Crime Rates in Rhode Island”.
12. Sananda Sarkar (2019 Spring), “Spatial analysis of county level drug overdose deaths and associated factors, over two time periods in the united states”.
13. Padmini Sangaraju (2019 Spring), “Modeling the relationships between urinary F2-isoprostanes, BMI, and risk of type 2 diabetes”.
14. Karbet Djedouboum (2019 Spring), “Adverse health effects associated with long-term exposure to fine particulate matter at levels below $12 \mu\text{g}/\text{m}^3$ ”.
15. Oluwadamilola Ode-Martins (2018 Spring), “Estimation of Excess Mortality Associated with Influenza and Pneumonia in Mexico from 2010-2016”.
16. Zakaria Robow (2018 Spring), “Spatial & Temporal Modelling of Tuberculosis in Mexico, Impact of Socioeconomic Status, Over the Last Decade”.
17. Purva Bulsara (2018 Spring), “The prevalence of physical activity among female cancer survivors in the United States”.

18. Alexandria Mitchell (2018 Spring), “Evaluating a Measles and Rubella Multiplex Bead Assay for countries in the WHO Global Laboratory Network using Hierarchical Models”.
 19. Pranusha Dubbaka (2018 Spring), “Comparative analysis of co-morbid conditions and driving status among older adults”.
 20. Yeong-Ruey Chu (2016 Fall), “Estimation of the annual rates of glioma in the general population of Taiwan adults”.
 21. Noreen Kloc (2015 Fall), “Insulin Dynamic Measures and Weight Change”.
 22. David Melton (2014 Fall), “Oxidative status and hypertension: an examination of the prospective association between urinary F2-Isoprostanes and hypertension”.
- Thesis committee member (Department of Mathematics and Statistics):
 1. Yan Qian (2014 Summer), “MRI signal intensity analysis of novel protein-based MRI contrast agents”.
 2. Yanan Yin (2013 Fall), “Jackknife empirical likelihood-based confidence intervals for low income proportions with the missing data”.
 3. Chenxue Li (2013 Fall), “Generalized confidence intervals for partial Youden Index and its corresponding optimal cut-off point”.
 4. Wen Zhou (2013 Fall), “Classification for 2011-2012 Bangladesh integrated household survey by iterative clustering technique”.
 5. Yunfeng Tie (2013 Spring), “Antiretroviral regimens in HIV-infected adults receiving medical care in the united states: medical monitoring project, 2009”.
 6. Fang-di Yang (2012 Fall), “Racial differences in the prevalence of depressive disorders among US adult population”.
 7. Zhengbo Ma (2011 Spring), “Jackknife empirical likelihood for U-statistics”.
 8. Gabriella Reizer (2011 Spring), “Stability selection of the number of clusters”.
 9. Yueheng An (2010 Fall), “Empirical likelihood confidence intervals for ROC curves with missing data”.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

The American Statistical Association (ASA)

UNIVERSITY SERVICE

- GSU Faculty Senator (2022+)
- Member, Senate Research Committee (2023+)
- Member, Senate Budget Committee (2023+)
- Member, Committee on Academic Programs (2022-2023)
- Member, Sub-Committee on Graduate Academic Programs (2023)
- Member, Committee on Admissions and Standards (2022-2023)
- Member, VPRED's Internal Grants Peer Review Committee (2021+)

SCHOOL SERVICE

- Chair, Faculty Award committee in SPH (2022 Spring)
- Member, Student Scholarship Evaluation committee in SPH (2021-2022)
- Member, Faculty Award committee in SPH (2017 Spring, 2018 Spring, 2019 Spring, 2020 Spring, 2021 Spring, 2023 Spring)
- Member, MPH admission committee in SPH/IPH (2013 Spring, 2014 Spring, 2016 Spring, 2018 Spring, 2019 Spring, 2020 Fall, 2021 Spring, 2021 Fall, 2022 Spring)
- Member, Biostatistics Faculty recruit committee in SPH (2018–2019)
- Member, Student Tech Fee committee in School of Public Health (2016 Fall, 2017 Spring)
- Member, the Academic Affair Committee in Institute of Public Health (2012 Fall – 2016 Spring)
- Member, TT and NTT Biostatistics Faculty Search Committee in School of Public Health (2013 Fall–2014 Spring)

DEPARTMENT SERVICE

- Chair, Pre-tenure Review Committee (2023 Spring)
- Member, Applied Biostatistics Graduate Certificate Development Committee (2022-present)
- Member, Departmental Pre-Tenure review committee (2017 Spring, 2020 Spring)
- Member, Departmental Promotion & Tenure committee (2019 Fall, 2020 Fall, 2021 Fall, 2022 Fall)
- Member, Biostatistics Faculty recruit committee in SPH (2018-2019)
- Member, Ad Hoc Biostatistics Committee in School of Public Health (2014 Fall–2016 Fall)

- Prepare and grade biostatistics problems in SPH comprehensive exam for PhD students (2012–2016)
- Member, Admission Committee in the Department of Mathematics and Statistics (2011 – 2012)
- Member, Visiting Lecturer Hiring Committee in the Department of Mathematics and Statistics (2011 Spring)
- Committee member of PhD students (Statistics) qualify exams (2010 Fall, 2011 Spring)
- Committee member of Statistics Graduate Committee in the Department of Mathematics and Statistics (2010 – 2012)

PROFESSIONAL SERVICE/ACTIVITIES

- Editorial Activities:
 - Associate Editor:
Frontiers in Public Health, Section of Digital Public Health
 - Ad-hoc Reviewer:
Journal of the American Statistical Association, Annals of Applied Statistics, Statistica Sinica, Biometrics, Canadian Journal of Statistics, Computational Statistics, Computational Statistics and Data Analysis, Journal of Applied Statistics, JRSS-A, Journal of Statistical Education, Journal of Statistical Computation and Simulation, Mathematical Biosciences, Mathematical Modeling and Analysis, Plant cell, Scandinavian Journal of Statistics, Scientific Report, Statistica Sinica, Statistical Papers, Technometrics.
- Member, Junior Research Award Committee for the ICSA China Conference.
- Member, VPRED’s Internal Grants Peer Review Committee (2022+).
- Member, DSMB for “Motor Learning of Fall Resistant Skills from Laboratory-induced Falling among People with Alzheimer’s Disease” NIA Protocol Number: 1R21 AG077307 (2022+).
- Team Co-Leader, IMA/UHG WIMB Workshop. “On Stable Estimation of Disease Parameters and Forecasting in Epidemiology”. (2022)
- ISEF 2022 Statistics Judge.
- Grant Reviewer, NSF DS&E-MSS Data Panel.

- Conference Organizer or Chair:
 - Session Chair, 8th Biostatistics and Bioinformatics, Atlanta, Georgia. (May 6, 2023 – May 7, 2023).
 - Session Chair, 2019 Joint statistical meetings, Denver, CO. (July 2019).
 - Session Organizer, International Chinese Statistical Association 2016 Symposium, Atlanta, Georgia. (June 2016).
 - Session Chair, International Chinese Statistical Association 2016 Symposium, Atlanta, Georgia. (June 2016).
 - Session Chair, 2015 Joint statistical meetings, Seattle, Washington. (August 2015).
 - Session Chair, 3rd Biostatistics and Bioinformatics, Atlanta, Georgia. (May 9, 2014 – May 11, 2014).
 - Session Chair, 2nd Biostatistics and Bioinformatics, Atlanta, Georgia. (May 10, 2013 – May 12, 2013).