

Hanwen Huang

Department of Biostatistics, Data Science and Epidemiology
Medical College of Georgia
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Education:

- PhD in Statistics, University of North Carolina at Chapel Hill, Chapel Hill, 2011
- PhD in Physics, Peking University, Beijing, China, 1995
- BS in Physics, Wuhan University, Wuhan, China, 1989

Professional Experience:

- Associate Professor (with tenure), Department of Biostatistics, Data Science and Epidemiology, Augusta University, 2023 –
- Associate Professor (with tenure), Department of Epidemiology and Biostatistics, University of Georgia, 2019 – 2023
- Assistant Professor (tenure track), Department of Epidemiology and Biostatistics, University of Georgia, 2013 – 2019
- Assistant Professor (research track), Center for Clinical and Translational Sciences, University of Texas Health Science Center at Houston, 2011 – 2013
- Postdoctoral Research Associate, Department of Biostatistics, University of North Carolina at Chapel Hill, 2005 – 2010
- Research Associate, Department of Physics, University of Colorado at Boulder, 2002 – 2004
- JSPS Research Fellow, Faculty of Human Development, Kobe University, Japan, 2000 – 2001
- AvH Research Fellow, Department of Physics, Bielefeld University, Germany, 1997 – 1999

Other Experience:

- Adjunct Faculty, Institute of Bioinformatics, University of Georgia, 2014 – 2019
- Statistician II: Becton Dickinson Technologies, RTP, North Carolina, 2013
- Internship: Becton Dickinson Technologies, RTP, North Carolina, 2011

Publications:

• Book Chapters and Conference Proceedings (Peer Reviewed):

1. **Hanwen Huang**, “Asymptotic behavior of margin-based classification methods”, *The IEEE Statistical Signal Processing Workshop 2018*, Freiburg, Germany, 463-467, 2018.

2. **Hanwen Huang**, Yufeng Liu, David Neil Hayes, Andrew Nobel, J. S. Marron, and Christian Hennig, “Significance testing in clustering”, in *Handbook of Cluster Analysis*, C. Hennig, M. Meila, F. Murtagh, R. Rocci (Eds.), CRC Press, 315-336, 2015.

- **Discussions:**

1. **Hanwen Huang**, Yufeng Liu, J. S. Marron, Dan Shen and Haipeng Shen, Discussion of “Large covariance estimation by thresholding principal orthogonal complements” by Jianqing Fan, Yuan Liao, and Martina Mincheva, *Journal of Royal Statistical Society, Series B* 75, 664-665, 2013

- **Peer Reviewed Journal Articles:**

Statistical Methodology:

1. Yang Li, Haoyu Yang, **Hanwen Huang**, Ye Shen, “Penalized Estimating Equations for Generalized Linear Models with Multiple Imputation”, *Annals of Applied Statistics*, in press
2. Anqi Pan*, Xiao Song, **Hanwen Huang**, “Bayesian analysis for partly linear Cox model with measurement error and time-varying covariate effect”, *Statistics in Medicine*, 41, 4666–4681, 2022
3. **Hanwen Huang**, “LASSO risk and phase transition under dependence”, *Electronic Journal of Statistics*, 16, 6512-6552, 2022
4. **Hanwen Huang**, “Bayesian multilevel mixed-effects model for influenza dynamics”, *Journal of the Royal Statistical Society: Series C*, 71, 1978-1995, 2022
5. **Hanwen Huang**, Qinglong Yang, “Large dimensional analysis of general margin based classification methods”, *Journal of Statistical Mechanics: Theory and Experiment*, 113401, 2021
6. **Hanwen Huang**, “Asymptotic risk and phase transition of L_1 -penalized robust estimator”, *Annals of Statistics*, 48, 3090-3111, 2020
7. **Hanwen Huang**, Andreas Handel, Xiao Song, “A Bayesian approach to estimate parameters of ordinary differential equation”, *Computational Statistics*, 35, 1481-1499, 2020
8. **Hanwen Huang**, Qinglong Yang, “Large scale analysis of generalization error in learning using margin based classification methods”, *Journal of Statistical Mechanics: Theory and Experiment*, 103407, 2020
9. Xiao Song, Li Wang, Shuangge Ma, **Hanwen Huang**, “Variable selection for partially linear proportional hazards model with covariate measurement error”, *Journal of Nonparametric Statistics*, 31, 196-220, 2019
10. **Hanwen Huang**, “Controlling the false discoveries in LASSO”, *Biometrics*, 73, 1102-1110, 2017
11. **Hanwen Huang**, “Asymptotic behavior of Support Vector Machine for spiked population model”, *Journal of Machine Learning Research*, 18, 1-21, 2017

*doctoral student and research assistant under my supervision

12. **Hanwen Huang**, “Regression in heterogeneous problems”, *Statistica Sinica*, 27, 71-88, 2017
13. Zhongxue Chen, **Hanwen Huang**, Peihua Qiu, “An Improved Two-Stage Procedure to Compare Hazard Curves”, *Journal of Statistical Computation and Simulation*, 87, 1877-1886, 2017
14. Zhongxue Chen, Hon Keung Tony NG, Jing Li, Qingzhong Liu, **Hanwen Huang**, “Detecting associated single-nucleotide polymorphisms on the X chromosome in case control genome-wide association studies”, *Statistical Methods in Medical Research*, 26, 567-582, 2017
15. Zhongxue Chen, **Hanwen Huang**, Peihua Qiu, “Comparison of multiple hazard rate functions”, *Biometrics*, 72, 39-45, 2016
16. Zhongxue Chen, **Hanwen Huang**, and Hon Keung Ng, “Testing for Association in Case-Control Genome-wide Association Studies with Shared Controls”, *Statistical Methods in Medical Research*, 25, 954-967, 2016
17. **Hanwen Huang**, Yufeng Liu, Ming Yuan, and J. S. Marron, “Statistical Significance of Clustering using Soft Thresholding”, (Featured Article) *Journal of Computational and Graphical Statistics*, 24, 975-993, 2015
18. **Hanwen Huang**, and Zhongxue Chen, “Bayesian Composite Quantile Regression”, *Journal of Statistical Computation and Simulation*, 85, 3744-3754, 2015
19. Zhongxue Chen, **Hanwen Huang**, and Hon Keung Tony Ng, “An Improved Robust Association Test for GWAS with Multiple Diseases”, *Statistics and Probability Letters*, 91, 153-161, 2014
20. Zhongxue Chen, **Hanwen Huang**, Qingzhong Liu, “A Powerful Statistical Approach to Detecting Differentially Methylated Loci When There Are Three or More Treatments”, *BMC Bioinformatics*, 2014, 15:142
21. **Hanwen Huang**, Yufeng Liu, Ying Du, Charles M. Perou, D. Neil Hayes, Michael J. Todd, and J. S. Marron, “Multiclass Distance Weighted Discrimination”, *Journal of Computational and Graphical Statistics*, 22, 953-969, 2013
22. **Hanwen Huang**, Zhongxue Chen, and Xudong Huang, “Age Adjusted Nonparametric Detection of Differential DNA Methylation with Case-Control Designs”, *BMC Bioinformatics*, 2013, 14:86
23. **Hanwen Huang**, Yufeng Liu, and J. S. Marron, “Bi-Directional Discrimination with Application to Data Visualization”, *Biometrika*, 99: 851-864, 2012
24. Zhongxue Chen, **Hanwen Huang**, and Hon Keung Ng, “Design and Analysis of Multiple Diseases GWAS without Controls”, *Gene*, 510: 87-92, 2012
25. **Hanwen Huang**, Xiaosun Lu, Yufeng Liu, Perry Haaland, and J. S. Marron, “R/DWD: Distance Weighted Discrimination for Classification, Visualization and Batch Adjustment”, *Bioinformatics*, 28: 1182-1183, 2012
26. **Hanwen Huang**, Haibo Zhou, Fuxia Cheng, Ina Hoeschele, Fei Zou, “Bayesian Semi-parametric Quantitative Trait Loci Interval Mapping”, *Biometrics*, 66: 222-232, 2010 (Selected by the Co-Editors of Biometrics to present in a session with the title “Breakthroughs in Bioinformatics and Statistical Genetics” in the 2010 Joint Statistical Meetings)

27. Fei Zou, **Hanwen Huang** and Joseph Ibrahim, “A Semiparametric Bayesian Approach for Estimating Gene Expression Distribution”, *Journal of Biopharmaceutical Statistics*, 20: 267-280, 2010
28. Fei Zou, **Hanwen Huang**, Seunggeun Lee and Ina Hoeschele, “Nonparametric Bayesian Variable Selection with Applications to Multiple Quantitative Trait Loci Mapping with Epistasis and Gene-Environment Interaction”, *Genetics*, 186: 385-394, 2010
29. **Hanwen Huang**, Fei Zou, Fred Wright, “Bayesian Analysis of Loss of Heterozygosity by Modeling of Frequency of Allelic Loss Data”, *Journal of the American Statistical Association*, 102:1245-1253, 2007
30. Fred A. Wright, **Hanwen Huang**, Xiaojun Guan, Kevin Gamiel, Clark Jeffries, Fernando Pardo-Manuel, Patrick F. Sullivan, Kirk C. Wilhelmsen, Fei Zou, “Simulating Association Studies: A Data-Based Resampling Method for Candidate Regions or Whole Genome Scans”, *Bioinformatics*, 23: 2581-2588, 2007
31. **Hanwen Huang**, Chevonne D. Eversley, David W. Threadgilli, Fei Zou, “Bayesian Multiple Quantitative Trait Loci Mapping for Complex Traits Using Markers of the Entire Genome”, *Genetics*, 176: 2529-2540, 2007

Statistical Application:

32. Nadim Sharif, Rubayet Rayhan Opu, Afsana Khan, Khalid J Alzahrani, Hamsa Jameel Banjer, Fuad M Alzahrani, Nusaira Haque, Shahriar Khan, Saimum Tahreef Soumik, Ming Zhang, **Hanwen Huang**, Xiao Song, Anowar Khasru Parvez, Shuvra Kanti Dey, “The effect of supplementation with vitamins C, D and zinc on infection and disease severity among patients with COVID-19 in Bangladesh: a cross sectional study”, *Nutrients*, Volume 14, Issue 23, 5029, 2022
33. Yongjie Ma, Xiaohan Zhang, Omar Awad Alsaidan, Xiangkun Yang, Essilvo Sulejmani, Junyi Zha, Zanna Beharry, **Hanwen Huang**, Michael Bartlett, Zachary Lewis and Houjian Cai, “Long-chain fatty acyl-CoA synthetase 1 promotes prostate cancer progression by elevation of lipogenesis and fatty acid beta-oxidation”, *Oncogene*, 40(10), 1806-1820, 2021
34. Yongjie Ma, Xiaohan Zhang, Omar Awad Alsaidan, Xiangkun Yang, Essilvo Sulejmani, Junyi Zha, Zanna Beharry, **Hanwen Huang**, Michael Bartlett, Zachary Lewis and Houjian Cai, “Long-Chain Acyl-CoA Synthetase 4-Mediated Fatty Acid Metabolism Sustains Androgen Receptor Pathway-Independent Prostate Cancer”, *American Association for Cancer Research*, 19, 124-35, 2021
35. Aiyong Xie, **Hanwen Huang**, Fanbin Kong, “Relationship between food composition and its cold/hot properties: A statistical study”, *Journal of Agriculture and Food Research*, 2, 100043, 2020
36. Ruchi Yadav, Dae-goon Yoo, J. Michelle Kahlenberg, **Hanwen Huang**, Arlene Stecenko, Balazs Rada, “Systemic levels of anti-PAD4 autoantibodies correlate with airway obstruction in cystic fibrosis”, *Journal of Cystic Fibrosis*, 18, 636-645, 2019
37. Yonggang Li, Tongxue Zhao, Gia Khuong Hoang Hua, Lankun Xun, Jinxin Liu, Shuxian Li, **Hanwen Huang**, Pingsheng Ji, “Pathogenicity and genetic diversity of *Fusarium oxysporum* causing soybean root rot in northeast China”, *Journal of Agricultural Science*, 10, 13-23, 2018
38. Alyson Haslam, Sara Wagner Robb, James R Hebert, **Hanwen Huang**, Mark H

- Ebell, “Association between dietary pattern scores and the prevalence of colorectal adenoma considering population subgroups”, *Nutr Diet*, 20, 1609-1616, 2017
39. Alyson Haslam, Sara Wagner Robb, James R Hebert, **Hanwen Huang**, Mark H Ebell, “Greater adherence to a Mediterranean diet is associated with lower prevalence of colorectal adenomas in men of all races”, *Nutrition Research*, 48, 76-84, 2017
40. Alyson Haslam, Sara Wagner Robb, James R Hebert, **Hanwen Huang**, Mark H Ebell, “The association between Dietary Inflammatory Index scores and the prevalence of colorectal adenoma”, *Public Health Nutrition*, 20, 1609-1616, 2017
41. Mohammad H Rahbar, Jing Ning, Sangbum Choi, Jin Piao, Chuan Hong, **Hanwen Huang**, Deborah J del Junco, Erin E Fox, Elaheh Rahbar and John B Holcomb. A joint latent class model for classifying severely hemorrhaging trauma patients, *BMC Research Notes*, 8: 602, 2015
42. Zhongxue Chen, **Hanwen Huang**, Jianzhong Liu, Hon Keung Ng, Saralees Nadarajah, Xudong Huang, and Youping Deng “Detecting Differentially Methylated Loci for Illumina Array Methylation Data”, *BMC Medical Genomics* 2013, 6(Suppl 1): S9
43. Davide Cattano, Alfonso Altamirano, Husnu E. Kaynak, Rita Paniccia, Zhongxue Chen, **Hanwen Huang**, Domenico Prisco, Carin A. Hagberg, and Evan G. Pivalizza, “Perioperative Assessment of Platelet Function by Thromboelastogram through Platelet Mapping in Cardiovascular Patients Undergoing Non-cardiac Surgery”, *Journal of Thrombosis and Thrombolysis*, 35, 23-30, 2013.
44. Mohammad H Rahbar, Deborah J. del Junco¹, **Hanwen Huang**, Jing Ning, Erin E Fox, Xuan Zhang, Martin A Schreiber, Karen J Brasel, Eileen M Bulger, and John B Holcomb, “A latent class model for defining severe hemorrhage: Experience from the Prospective, Observational, Multicenter, Major Trauma Transfusion (PROMTT) Study”, *Journal of Trauma and Acute Care Surgery*, 2013, 75(1 Suppl 1): S82-8.
45. Jessica J. Nadler, Fei Zou, **Hanwen Huang**, Sheryl S. Moy, Jean Lauder, Jacqueline N. Crawley, David W. Threadgill, Fred A. Wright and Terry R. Magnuson, “Large Scale Differences in Gene Expression among Brain Regions in Ten Inbred Strains of Mouse and Their Correlation with A Behavioral Phenotype”, *Genetics*, 174: 1229-1236, 2006

Theoretical Physics:

46. **Han-Wen Huang**, Cai-Dian Lü, Toshiyuki Morii, Yue-Long Shen, Ge-Liang Song, and Jin Zhu, “Study of $B \rightarrow K^* \rho, K^* \omega$ decays with polarization in the perturbative QCD approach”, *Physical Review D* **73**: 014011, 2006
47. **H. W. Huang**, R. Jakob, P. Kroll and K. Passek-Kumericki, “Signatures of the Handbag Mechanism in Wide-Angle Photoproduction of Pseudoscalar Mesons”, *European Physical Journal C* **33**: 91-103, 2004
48. **H. W. Huang** and T. Morii, “One-loop Helicity Amplitudes for Parton Level Virtual Compton Scattering”, *Physical Review D* **68**: 014016, 2003
49. A. R. Barker, **H. Huang**, P. A. Toale, and J. Engle, “Radiative Corrections to Double Dalitz Decays: Effects on Invariant Mass Distributions and Angular Correlations”, *Physical Review D* **67**: 033008, 2003

50. M. Diehl, T. Feldmann, **H. W. Huang** and P. Kroll, “Proton Mass Effects in Wide-Angle Compton Scattering”, *Physical Review D* **67**: 037502, 2003
51. **H. W. Huang**, P. Kroll, T. Morii, “Perturbative and Non-perturbative QCD Corrections to Wide-angle Compton Scattering”, *European Physical Journal C* **23**, 301-310 (2002)
52. Kazutaka Sudoh, **Han-Wen Huang**, Toshiyuki Morii, “Electroproduction of ψ' and Polarized Gluon Distribution in a Proton”, *Physics Letters B* **515**, 99-104 (2001)
53. **H. W. Huang**, P. Kroll, “Large Momentum Transfer Electroproduction of Mesons”, *European Physical Journal C* **17**, 423-435 (2000)
54. Cong-Feng Qiao, **Han-Wen Huang**, Kuang-Ta Chao, “Possible Retardation Effects of Quark Confinement on the Meson Spectrum. II”, *Physical Review D* **60**: 094004, 1999
55. **Han-Wen Huang**, “Double Scattering Effect in Transverse Momentum Distribution of Inclusive J/ψ Production in Photon-Nucleus Collision”, *Nuclear Physics B* **541**, 267-286 (1999)
56. **Han-Wen Huang**, “Heavy Quark Distribution Function in QCD and Nonperturbative Parameters in Heavy Quark Expansion”, *Physics Letters B* **441**, 396-402 (1998)
57. **Han-Wen Huang**, “The x_F Distribution of J/ψ Production in Proton-Proton and Proton-Nucleus Collisions”, *Nuclear Physics A* **643**, 303-314 (1998)
58. Xiao-Fei Zhang, **Han-Wen Huang**, Xue-Qian Li, Wei-Qin Chao, “The p_T Distribution of J/ψ in Quark Gluon Plasma”, *Physical Review C* **57**, 2547-2551 (1998)
59. **Han-Wen Huang**, Hai-Ming Hu, and Xiao-Fei Zhang, “Hadronic Annihilation Decay Rates of P-wave Heavy Quarkonia with Relativistic Corrections”, *Physical Review D* **56**, 5816-5819 (1997)
60. **Han-Wen Huang**, “Isgur-Wise Function in the Relativistic Quark Model”, *Physical Review D* **56**, 1579-1583(1997)
61. **Han-Wen Huang**, Jing-Hua Liu, Jian Tang, and Kuang-Ta Chao, “Pseudoscalar Heavy Quarkonium Decays with both Relativistic and QCD Corrections”, *Physical Review D* **56**, 368-376(1997)
62. Cai-Dian Lü and **Han-Wen Huang**, “QCD Corrections to $b \rightarrow se^+e^-$ Decay”, *Physics Letters B* **390**, 413-419 (1997)
63. Yuan-Ben Dai, Chao-Shang Huang, **Han-Wen Huang**, “ $B \rightarrow X_s \tau^+ \tau^-$ in a Two Higgs Doublet Model”, *Physics Letters B* **390**, 257-262(1997)
64. **Han-Wen Huang**, Kuang-Ta Chao, “Cancellation of Infrared Divergences in Hadronic Annihilation Decay of Heavy Quarkonia”, *Physical Review D* **55**, 244-248(1997)
65. **Han-Wen Huang**, Kuang-Ta Chao, “QCD Predictions for Annihilation Decays of P-wave Heavy Quarkonia to Next-to-leading Order in α_s ”, *Physical Review D* **54**, 6850-6854 (1996)
66. **Han-Wen Huang**, Kuang-Ta Chao, “QCD Radiative Corrections to Hadronic Annihilation Rate of 1^{+-} Heavy Quarkonium”, *Physical Review D* **54**, 3065-3072 (1996)
67. Cong-Feng Qiao, **Han-Wen Huang**, Kuang-Ta Chao, “Possible Retardation Effects of Quark Confinement on the Meson Spectrum”, *Physical Review D* **54**, 2273-2278

(1996)

68. **Han-Wen Huang**, Cong-Feng Qiao, Kuang-Ta Chao, “Electromagnetic Annihilation Rates of χ_{c0} and χ_{c2} with both Relativistic and QCD Radiative Corrections”, *Physical Review D* **54**, 2123-2131 (1996)
69. Kuang-Ta Chao, **Han-Wen Huang**, and Yu-Quan Liu, “Gluonic and Leptonic Decays of Heavy Quarkonia and the Determination of $\alpha_s(m_c)$ and $\alpha_s(m_b)$ ”, *Physical Review D* **53**, 221-230 (1996)
70. Jue-Ping Liu, **Han-Wen Huang**, Rui Wang, “Nonperturbative Corrections to Perturbative Quark Potentials”, *Physical Review D* **49**, 3474-3479 (1994)

Experimental Physics:

71. E. Abouzaid *et al.* [KTeV Collaboration], “Measurements of the Decay $K_L \rightarrow e^+e^-\gamma$,” *Physical Review Letters* **99**, 051804 (2007)
72. E. Abouzaid *et al.* [KTeV Collaboration], “ Ξ^0 and $\bar{\Xi}^0$ Polarization Measurements at 800-GeV/c,” *Physical Review D* **75**, 012005 (2007)
73. E. Abouzaid *et al.* [KTeV Collaboration], “Measurement of direct photon emission in the $K_L \rightarrow \pi^+\pi^-\gamma$ decay mode,” *Physical Review D* **74**, 032004 (2006)
74. E. Abouzaid *et al.* [KTeV Collaboration], “A measurement of the K_0 charge radius and a CP violating asymmetry together with a search for CP violating E1 direct photon emission in the rare decay $K_L \rightarrow \pi^+\pi^-e^+e^-$,” *Physical Review Letters* **96**, 101801 (2006)
75. E. Abouzaid *et al.* [KTeV Collaboration], “Observation Of The Decay $\Xi^0 \rightarrow \Sigma^+\mu^-\bar{\nu}_\mu$,” *Physical Review Letters* **95**: 081801, 2005
76. T. Alexopoulos *et al.* [KTeV Collaboration], “Measurements Of The Branching Fraction And Decay Distributions For $K_L \rightarrow \pi^\pm\mu^\mp\nu\gamma$ and $K_L \rightarrow \pi^\pm e^\mp\nu\gamma$,” *Physical Review D* **71**: 012001, 2005
77. T. Alexopoulos *et al.* [KTeV Collaboration], “A determination of the Cabibbo-Kobayashi-Maskawa parameter $|V_{us}|$ using K_L decays”, *Physical Review Letters* **93**: 181802, 2004
78. T. Alexopoulos *et al.* [KTeV Collaboration], “Measurements of K_L branching fractions and the CP violation parameter $|\eta_{+-}|$ ”, *Physical Review D* **70**: 092006, 2004
79. T. Alexopoulos *et al.* [KTeV Collaboration], “Measurements of semileptonic K_L decay form factors” *Physical Review D* **70**: 092007, 2004
80. A. Alavi-Harati *et al.* [KTeV Collaboration], “Search for the Rare Decay $K_L \rightarrow \pi^0 e^+ e^-$ ” *Physical Review Letters* **93**: 021805, 2004
81. A. Alavi-Harati *et al.* [KTeV Collaboration], “Measurements of the Decay $K_L \rightarrow e^+e^-\mu^+\mu^-$ ” *Physical Review Letters* **90**: 141801, 2003

Research Grants:

1. Title: Extracellular vesicles encapsulating CRISPR machinery for treatment of SARS-CoV-2 infection
Funding source: **National Institutes of Health (R21)**
PI: Houjian Cai Amount: \$406,194 Duration: 01/2023–12/2024
Role: **Co Investigator** (3% of effort each year)

2. Title: Blocking TMPRSS2 expression for prevention of SARS-CoV-2 infection
 Funding source: **National Institutes of Health (R21)**
 PI: Houjian Cai Amount: \$415,250 Duration: 07/2021–06/2023
 Role: **Co Investigator** (3% of effort each year)
3. Title: Novel statistical methods for modeling population dynamical systems
 Funding source: **National Science Foundation – Division of Mathematical Sciences**
 PIs: Xiao Song & Hanwen Huang Amount: \$12,5000 Duration: 09/2019–08/2022
 Role: **Principal Investigator** (12% of effort each year)
4. Title: Neutrophil Extracellular traps in cystic fibrosis
 Funding source: **National Institutes of Health (R01)**
 PI: Balazs Rada Amount: \$2,697,423 Duration: 01/2018–12/2021
 Role: **Co Investigator** (11% of effort each year)
5. Title: Targeting GPR109A for the treatment of pain in systemic lupus erythematosus
 Funding source: **The Corporation of Mercer University**
 PI: Shelley Hooks Amount: \$40,907 Duration: 10/2018–9/2020
 Role: **Co Investigator** (3% of effort each year)
6. Title: Healthy Life Expectancy Among Older Hispanics: Individual and Neighborhood Influences
 Funding source: **National Institutes of Health (RO3)**
 PI: Kerstin Emerson Amount: \$150,000 Duration: 05/2017–01/2019
 Role: **Co Investigator** (3% of effort, plus 1 RA each year)
7. Title: Anti-NET Autoantibodies in Cystic Fibrosis
 Funding source: **National Institutes of Health (R21)**
 PI: Balazs Rada Amount: \$412,500 Duration: 03/2017–02/2019
 Role: **Co Investigator** (5% of effort each year)
8. Title: Anti-NET Autoantibodies in Cystic Fibrosis
 Funding source: **Cystic Fibrosis Foundation**
 PI: Balazs Rada Amount: \$108,000 Duration: 11/2016–10/2017
 Role: **Co Investigator** (1% of effort each year)
9. Title: Neutrophil Extracellular Traps in Cystic Fibrosis
 Funding source: **National Institutes of Health (R56)**
 PI: Balazs Rada Amount: \$379,715 Duration: 09/2016–08/2018
 Role: **Co Investigator** (5% of effort each year)
10. Title: Community Transmission of Tuberculosis in Urban Africa
 Funding source: **National Institutes of Health (R01)**
 PI: Christopher Whalen Amount: \$99,283 Duration: 04/2016–03/2017
 Role: **Co Investigator** (7.5% of effort each year)
11. Title: Dietary Saturated Fatty Acids Promote Src Kinase-Mediated Prostate Tumor Progression
 Funding source: **US Department of Defense**
 PI: Houjian Cai Amount: \$337,500 Duration: 09/2015–09/2018
 Role: **Co Investigator** (3% of effort each year)

Professional Activities:

- **Fellowships:**

- The Future Faculty Fellowship Program, University of North Carolina at Chapel Hill, 2010
- Japan Society for the Promotion of Science (JSPS) Fellow, Japan, 2000-2001
- Alexander von Humboldt (AvH) Fellow, Germany, 1997-1999

- **Professional Memberships:**

- American Statistical Association (ASA)
- International Biometric Society in Eastern North American Region (ENAR)
- American Society of Human Genetics
- International Chinese Statistical Association

- **Journal Editorial:**

- Editorial Board in Scientific Reports, 2015-

- **Journal Referee:**

- Journal of the American Statistical Association
- Biometrika
- Biometrics
- Journal of Computational and Graphical Statistics
- Journal of Machine Learning Research
- Statistics and Computing
- Bioinformatics
- Journal of Statistical Software
- Computational Statistics and Data Analysis
- Statistical Papers
- Journal of Statistical Computation and Simulation
- Advances in Data Analysis and Classification
- Statistics and Probability Letters
- WIREs Computational Statistics
- Nucleic Acids Research
- Neural Computation
- Scientific Reports
- Communications in Statistics - Simulation and Computation
- PLoS One
- SpringerPlus

Presentations

1. (Invited speaker) *LASSO risk and phase transition under dependence*, Department of Mathematics & Statistics, Auburn University, October 2021

2. (Invited speaker) *LASSO risk and phase transition under dependence*, Department of Statistics and Actuarial Science, University of Iowa, October 2021
3. (Invited speaker) *An Improved Two-Stage Procedure to Compare Hazard Curves in survival data analysis*, 2019 ICSA-China conference, Tianjin, China, July 2019
4. (Invited speaker) *Asymptotic behavior of Support Vector Machine for spiked population model*, the sixth IBS-China International Biostatistics Conference, Guangzhou, China, July 2018
5. (Invited speaker) *Asymptotic behavior of margin-based classification methods*, The IEEE Statistical Signal Processing Workshop 2018, Freiburg, Germany, June 2018
6. (Invited speaker) *Regression in heterogeneous problems*, 25th ICSA Applied Statistics Symposium, Atlanta, GA, June 2016
7. (Invited speaker) *Bayesian Composite Quantile Regression*, Joint Statistical Meetings, Seattle, Wa, August 2015
8. (Invited speaker) *Bayesian Composite Quantile Regression*, Seventh International Conference on Dynamic Systems and Applications, Atlanta, GA, May 2015
9. (Invited speaker) *Multiclass Distance Weighted Discrimination*, Joint Statistical Meetings, Boston, MA, August 2014
10. (Invited speaker) *Multiclass Distance Weighted Discrimination*, ISBIS 2014 and SLDM Joint Meeting, Durham, NC, June 2014
11. *Age-adjusted nonparametric detection of differential DNA methylation with case-control designs*, Institute of Bioinformatics, University of Georgia, October 2013
12. (Invited speaker) *High Dimensional Classification and Clustering*, Department of Epidemiology and Biostatistics, University of Georgia, November 2012
13. (Invited speaker) *High Dimensional Classification and Clustering*, Department of Mathematical Sciences, DePaul University, November 2012
14. (Invited speaker) *High Dimensional Classification and Clustering*, Department of Biostatistics and Bioinformatics, Duke University, October 2012
15. (Invited speaker) *Improved Statistical Significance of Clustering*, Joint Statistical Meetings, San Diego, CA, July 2012
16. (Invited speaker) *High Dimensional Statistical Learning*, Division of Biostatistics, University of Texas Health Science Center at Houston, Houston, TX, January 2012
17. (Invited) *High Dimensional Statistical Learning*, Center for Clinical and Translational Sciences, University of Texas Health Science Center at Houston, Houston, TX, July 2011
18. (Invited) *High Dimensional Statistical Learning*, Department of Biostatistics, Columbia University, New York, NY, May 2011
19. (Invited) *High Dimensional Statistical Learning*, Department of Statistics, University of Georgia, Athens, GA, February 2011
20. (Invited) *High Dimensional Statistical Learning*, Department of Statistics, Virginia Tech, Blacksburg, VA, January 2011
21. (Invited) *High Dimensional Statistical Learning*, Division of Biostatistics, University of Minnesota, Minneapolis, MN, January 2011
22. *High Dimensional Statistical Learning*, Colloquium, Department of Statistics and Oper-

ations Research, University of North Carolina at Chapel Hill, Chapel Hill, NC, January 2011

23. *Multiclass Distance Weighted Discrimination with Applications to Batch Adjustment*, Genetics and statistics meeting, Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, NC, November 2010
24. (Contributed) *Bayesian Semiparametric Quantitative Trait Loci Interval Mapping*, Joint Statistical Meetings, Vancouver, Canada, August 2010
25. *Bayesian Analysis of Loss of Heterozygosity by Modeling of Frequency of Allelic Loss Data*, Eastern North American Region Meeting, Tampa, Florida, March 2006
26. (Invited) *Introduction of KTeV experiment*, Department of Physics, Purdue University, West Lafayette, IN, May 2004
27. (Invited) *Percolation and Magnetization of Generalized Continuous Spin Models*, Buffalo Center of Excellence in Bioinformatics, Buffalo, NY, March 2004
28. *Radiative Corrections to Double Dalitz Decays*, KTeV Collaboration Meeting, Department of Physics, Rice University, Houston, TX, May 2002
29. *Large Momentum Transfer Electroproduction of Mesons*, Workshop on Polarized Partons at High Q^2 region, Yukawa Institute for Theoretical Physics, Kyoto, Japan, October 2000
30. (Contributed) *Polyakov Loop Percolation and Deconfinement in $SU(2)$ Gauge Theory*, International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Torino, Italy, May 1999

Instruction:

- **Courses Taught at the University of Georgia**

- Spring 2014, Bios 7020: Introductory Biostatistics II
- Fall 2014, Bios 7020: Introductory Biostatistics II
- Spring 2015, Bios 7020: Introductory Biostatistics II
- Spring 2015, Bios 8020: Linear and Generalized Linear Models
- Fall 2015, Bios 7020: Introductory Biostatistics II
- Fall 2015, Bios 8310: Advanced Biostatistical Inference
- Spring 2016, Bios 7020: Introductory Biostatistics II
- Spring 2016, Bios 8020: Linear and Generalized Linear Models
- Fall 2016, Bios 7020: Introductory Biostatistics II
- Fall 2016, Bios 7010E: Introductory Biostatistics I
- Spring 2017, Bios 7020: Introductory Biostatistics II
- Spring 2017, Bios 8020: Linear and Generalized Linear Models
- Summer 2017, Bios 7010E: Introductory Biostatistics I
- Fall 2017, Bios 7020: Introductory Biostatistics II
- Fall 2017, Bios 7010E: Introductory Biostatistics I
- Spring 2018, Bios 7010E: Introductory Biostatistics I

- Spring 2018, Bios 8020: Linear and Generalized Linear Models
- Summer 2018, Bios 7010E: Introductory Biostatistics I
- Fall 2018, Bios 7020: Introductory Biostatistics II
- Fall 2018, Bios 8310: Advanced Biostatistical Inference
- Spring 2019, Bios 8020: Linear and Generalized Linear Models
- Spring 2019, Bios 7010E: Introductory Biostatistics I
- Summer 2019, Bios 7010E: Introductory Biostatistics I
- Fall 2019, Bios 7020: Introductory Biostatistics II
- Fall 2019, Bios 7010E: Introductory Biostatistics I
- Spring 2020, Bios 8020: Linear and Generalized Linear Models
- Spring 2020, Bios 8900: Statistical Machine Learning
- Summer 2020, Bios 7010E: Introductory Biostatistics I
- Fall 2020, Bios 7020: Introductory Biostatistics II
- Spring 2021, Bios 7020: Introductory Biostatistics II
- Spring 2021, Bios 8020: Linear and Generalized Linear Models
- Summer 2021, Bios 7010E: Introductory Biostatistics I
- Fall 2021, Bios 7020: Introductory Biostatistics II
- Fall 2021, Bios 2010: Elementary Biostatistics
- Spring 2022, Bios 8020: Linear and Generalized Linear Models
- Summer 2022, Bios 7010E: Introductory Biostatistics I
- Fall 2022, Bios 8310: Advanced Biostatistical Inference

- **Guest Lectures at the University of Georgia**

- Fall 2014, EPID 8010: Cohort Designs
- Fall 2016, Bios 9100: Biostatistics Graduate Seminar
- Fall 2017, Bios 9100: Biostatistics Graduate Seminar
- Fall 2019, Bios 9100: Biostatistics Graduate Seminar
- Fall 2021, Bios 9100: Biostatistics Graduate Seminar

- **Courses Taught at the University of Texas School of Public Health**

- Spring 2012, PH2860: Advanced Design and Analysis Methods in Epidemiology

- **Advising and Research Supervision**

- Ishaan Dave, Ph.D. in biostatistics, major advisor, 2017-
- Anqi Pan, Ph.D. in biostatistics, major advisor, 2018-2022
- Xiaoyan Tan, M.S. in biostatistics, major advisor, 2016-2017
- Gizem Uzay, Ph.D. in Environmental Health Science, Doctoral advisory committee member, 2022-

- Dave Montgomery, Ph.D. in Bioinformatics, Doctoral advisory committee member, 2017-
- Sara Byers, Ph.D. in biostatistics, research supervision and Doctoral advisory committee member, 2015-2016
- Chao Li, Ph.D. in biostatistics, research supervision, 2014-2015
- Xiaoming Bian, Ph.D. in Environmental Health Science, Doctoral advisory committee member, 2015-2017
- Chunla He, Ph.D. in biostatistics, Doctoral advisory committee member, 2015-2017
- Alyson Haslam, Ph.D. in epidemiology, Doctoral advisory committee member, 2015-2016
- Bei Gao, Ph.D. in Environmental Health Science, Doctoral advisory committee member, 2015-2016
- Robert Kakaire, DrPH in epidemiology, Doctoral advisory committee member, 2016-2018
- Allan Nkwata, Ph.D. in epidemiology, Doctoral advisory committee member, 2016-2020
- Eric Gillis, Ph.D. in epidemiology, Doctoral advisory committee member, 2016-2018
- Yujia Cheng, M.S. in biostatistics, Master advisory committee member, 2017-2018
- Feng Zhang, M.S. in biostatistics, Master advisory committee member, 2017-2018

University Services:

- Admissions Committee, Department of Epidemiology and Biostatistics, University of Georgia, 2019-
- Student Affairs Committee, Department of Epidemiology and Biostatistics, University of Georgia, 2017-
- Faculty Search Committee for the lecturer position, 2017-2018
- Faculty Search Committee for the tenure-track position, 2016-2017
- MPH Biostatistics Admissions Committee, Department of Epidemiology and Biostatistics, University of Georgia, 2013-
- MS/PhD Biostatistics Admissions Committee, Department of Epidemiology and Biostatistics, University of Georgia, 2013-
- MS/PhD Biostatistics Comprehensive qualify exam committee, Department of Epidemiology and Biostatistics, University of Georgia, 2014-
- Served as a department representative in college recruitment events (2014)
- Organizer of the joint statistics and biostatistics seminar, Department of Epidemiology and Biostatistics, University of Georgia, 2014

Implemented and Maintained Softwares:

- SigClust: Statistical Significance of Clustering
<http://cran.r-project.org/web/packages/sigclust/index.html>

- DWD: DWD implementation based on A IPM SOCP solver
<http://cran.r-project.org/web/packages/DWD/index.html>

Computational Skills:

- Operating Systems: Proficiency in Linux/Unix and Windows operating systems
- Programming languages: Proficiency in C, C++, Fortran, Mathematica, Perl Script
- Software packages: Proficiency in R, Matlab, Python, SAS, BUGS

References

- J. S. Marron
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