Elizabeth D. Schifano, Ph.D.

CONTACT INFORMATION

University of Connecticut
Department of Statistics
215 Glenbrook Road, Unit 4120
Storrs, Connecticut 06269-4120

Mobile: 716 479 0223
Department: 860 486 6143
Email: elizabeth.schifano@uconn.edu
Website: https://elizabeth-schifano.uconn.edu/

RESEARCH INTERESTS

Statistical methods for genomic, public health and medical data. Specific expertise and interests in: big data analytics; epigenetics; genetic epidemiology; genome-wide association and sequencing studies; high dimensional and correlated data; shrinkage estimation; statistical genomics; survival analysis; variable selection.

EDUCATION

Cornell University, Ithaca, NY

Ph.D., Statistics, August 2010

- Dissertation Topic: "Topics in Penalized Estimation"
- Advisor: Robert L. Strawderman

M.S., Statistics, August 2007

- Thesis Topic: "Generalized Wavelet Thresholding: Estimation and Hypothesis Testing with Applications to Array Comparative Genomic Hybridization"
- Advisor: Robert L. Strawderman

B.S., Biometry and Statistics, *Summa Cum Laude*, May 2004

EXPERIENCE

University of Connecticut, Department of Statistics, Storrs, CT

Associate Professor (with tenure) August 2020 - present
Assistant Professor August 2012 - August 2020
Methodological research in statistics; teaching and advising undergraduate and graduate students.

Undergraduate Program Director July 2019 - present
Advise undergraduate honors and non-honors Mathematics-Statistics and Statistics majors; manage and oversee all aspects of undergraduate program.

Undergraduate Program Faculty Academic Advisor August 2016 - June 2019
Advise undergraduate honors and non-honors Mathematics-Statistics and Statistics majors; assist Undergraduate Director in all aspects of undergraduate program oversight.

Harvard School of Public Health, Department of Biostatistics, Boston, MA

Postdoctoral Research Fellow September 2010 - August 2012
NIH Training Grants: Environmental Statistics & Genes and the Environment;
Mentor: Xihong Lin.
Developed and applied statistical and computational methods in high-dimensional genomic data; collaborated and assisted with statistical sections of NIH R01/P01 grant proposals for members of Department of Environmental Health.

Roswell Park Cancer Institute, Departments of Biostatistics & Cancer Genetics, Buffalo, NY

Biostatistics Research Apprentice Summer 2005, Summer 2006
Designed and implemented new statistical techniques and computational tools for array comparative genomic hybridization analyses.

Cornell University, Office of Statistical Consulting, Ithaca, NY

Statistical Research Assistant August 2003 - May 2004
Advised undergraduate honors students on statistical portions of theses; oversaw operation of Division of Nutritional Sciences Graduate Computing Facility; managed consulting website, electronic mailing list, library book reserve, workshop registration.

Johns Hopkins Medical Institute, Department of Cardiology, Baltimore, MD

Biostatistics Intern Summer 2003

Acquired and disseminated computational knowledge for analyzing gene expression microarray data, with applications in comparative analysis of human myocardial tissues.

Teaching Experience

University of Connecticut, Department of Statistics, Storrs, CT

Introduction to Biostatistics (STAT/BIST 5625), 3 credit graduate course — Spring 2019, Fall 2020
Introduction to Biostatistics (STAT 4625), 3 credit undergraduate course — Spring 2019, Fall 2020
Analysis of Experiments (STAT 5315), 3 credit graduate course — Fall 2018
Analysis of Experiments (STAT 3115), 3 credit undergraduate course — Fall 2018
Data Science in Action (BIST/STAT 6494), 3 credit graduate course — Spring 2018
Investigation of Special Topics (STAT 5099), 1 credit required graduate course — Fall 2015
Seminar I/II (STAT 3484/3494W), 1 credit required undergraduate course — Fall 2015
Applied Statistics II (BIST/STAT 5605), 3 credit required graduate course — Spring 2013, 2014, 2016, 2018, 2020
Applied Statistics I (BIST/STAT 5505), 3 credit required graduate course — Fall 2012, 2013, 2014, 2015, 2016, 2017, 2019, 2020

Cornell University, Department of Biological Statistics and Computational Biology, Ithaca, NY

Graduate Teaching Assistant August 2005 - May 2010

- Distance Learning, Undergraduate-level Introductory Statistics (Summers 2007, 2008, 2009)
- Graduate-level Introductory Statistics, Parts I & II (2005 - 2006, 2008 - 2009, Spring 2010)
- Undergraduate-level Introductory Statistics, Parts I & II (2006 - 2007, Spring 2008)

Tutor Fall 2006

- Graduate-level Advanced Methods in Epidemiology

Published Refereed Papers (Methods)

Lee, J.[†], Wang, H., and **Schifano, E.D.** (2020+) Online Updating Method to Correct for Measurement Error in Big Data Streams. *To appear: Computational Statistics & Data Analysis.*

Schifano, E.D., Jeong, H., Deshpande, V.[†], and Dey, D.K. (2020+). Fully and empirical Bayes approaches to estimating copula-based models for bivariate mixed outcomes using Hamiltonian Monte Carlo. *To appear: TEST.*

Xue, Y.[†], Yan, J., and **Schifano, E.D.** (2019+). Simultaneous Monitoring for Regression Coefficients and Baseline Hazard Profile in Cox Modeling of Time-to-Event Data. *To appear: Biostatistics.*

Xue, Y.[†], **Schifano, E.D.**, and Hu, G. (2019+). Geographically Weighted Cox Regression for Prostate Cancer Survival Data in Louisiana. *To appear: Geographical Analysis.*

Xue, Y.[†*], Wang, H., Yan, J. and **Schifano, E.D.** (2020). An Online Updating Approach for Testing the Proportional Hazards Assumption with Streams of Survival Data. *Biometrics*, 76(1), 171–182. *ENAR Student Paper Award, 2019

Wu, J.[†], Chen, M-H., **Schifano, E.D.**, Ibrahim, J.G., and Fisher, J.D. (2019). A New Bayesian Joint Model for Longitudinal Count Data with Many Zeros, Intermittent Missingness, and Dropout with Applications to HIV Prevention Trials. *Statistics in Medicine*, 38, 5565–5586.

Bar, H. and **Schifano, E.D.** (2019). Differential Variation and Expression Analysis. *Stat*, 8, e237.

Schifano, E.D. (2019). A Review of Analysis Methods for Secondary Outcomes in Case-Control Studies. *Communications for Statistical Applications and Methods*, 26(2), 103–129.

Deshpande, V.[†], Dey, D.K., and **Schifano, E.D.** (2019). Variable Selection for Correlated Bivariate Mixed Outcomes using Penalized Generalized Estimating Equations. *Statistics and Its Interface*, 12(2), 265–274.

[†]Student

Wu, J.[†*], Ibrahim, J.G., Chen, M-H., **Schifano, E.D.**, and Fisher, J.D. (2018). Bayesian Modeling and Inference for Nonignorably Missing Longitudinal Binary Response Data with Applications to HIV Prevention Trials. *Statistica Sinica*, 28(4) 1929–1963. *ENAR Student Paper Award, 2017

Chen, K., Mishra, N., Smyth, J., Bar, H., **Schifano, E.D.**, Kuo, L., and Chen, M-H. (2018). A Tailored Multivariate Mixture Model for Detecting Proteins of Concordant Change Among Virulent Strains of *Clostridium Perfringens*. *Journal of the American Statistical Association*, 113(552), 546–559.

Wang, C.[†], Chen, M-H., Wu, J.[†], Yan, J., Zhang, Y., and **Schifano, E.D.** (2018). Online Updating Method with New Variables for Big Data Streams. *Canadian Journal of Statistics*, 46(1), 123–146.

Wu, J.[†], de Castro, M., **Schifano, E.D.**, and Chen, M-H. (2018). Assessing Covariate Effects using Jeffreys-type Prior in the Cox Model in the Presence of a Monotone Partial Likelihood. *Journal of Statistical Theory and Practice*, 12(1), 23–41.

Wang, C.[†], **Schifano, E.D.**, and Yan, J. (2017+). Geographical Ratings with Spatial Random Effects in a Two-Part Model. *To appear: Variance*.

Sofer, T.[**], **Schifano, E.D.**[**], Christiani, D.C., and Lin, X. (2017). Weighted Pseudolikelihood for SNP Set Analysis of Multiple Secondary Phenotypes in Case-Control Genetic Association Studies. *Biometrics*, 73(4), 1210–1220.

Xue, Y.[†] and **Schifano, E.D.** (2017). Diagnostics for the Cox Model. *Communications for Statistical Applications and Methods*, 24(6), 583–604.

Wang, C.[†], Chen, M-H., **Schifano, E.D.**, Wu, J.[†], and Yan, J. (2016). Statistical Methods and Computing for Big Data. *Statistics and Its Interface*, 9(4), 399–414.

Schifano, E.D., Wu, J.[†], Wang, C.[†], Yan, J., and Chen, M-H. (2016). Online Updating for Inference in the Big Data Setting. *Technometrics*, 58(3), 393–403.

Sofer, T., **Schifano, E.D.**, Hoppin, J.A., Hou, L., and Bacarelli, A. (2013). A-clustering: A Novel Method for the Detection of Co-regulated Methylation Regions, and Regions Associated with Exposure. *Bioinformatics*, 29(22), 2884-2891.

Schifano, E.D., Li, L., Christiani, D.C., and Lin, X. (2013). Genome-wide Association Analysis for Multiple Continuous Secondary Phenotypes. *American Journal of Human Genetics*, 92(5), 744−759.

Strawderman, R.L., Wells, M.T., and **Schifano, E.D.** (2013). Hierarchical Bayes, Maximum a Posteriori Estimators, and Minimax Concave Penalized Likelihood Estimation. *Electronic Journal of Statistics*, 7, 973−990.

Schifano, E.D., Epstein, M.P., Bielak, L.F., Jhun, M.A., Kardia, S.L.R., Peyser, P.A., and Lin, X. (2012). SNP Set Association Analysis for Familial Data. *Genetic Epidemiology*, 36, 797−810.

Bar, H.Y. and **Schifano, E.D.** (2011). Empirical and Fully Bayesian Approaches for Random Effects Models in Microarray Data Analysis. *Statistical Modelling*, 11(1), 71−88.

Schifano, E.D., Strawderman, R.L., and Wells, M.T. (2010). Majorization-Minimization Algorithms for Nonsmoothly Penalized Objective Functions. *Electronic Journal of Statistics*, 4, 1258−1299.

Bar, H.Y., Booth, J.G., **Schifano, E.D.**, and Wells, M.T. (2010). Laplace Approximated EM Microarray Analysis: An Empirical Bayes Approach for Comparative Microarray Experiments. *Statistical Science*, 25(3), 388−407.

[**]Contributed equally; [†]Student

Gaile, D.P., **Schifano, E.D.**, Miecznikowski, J.C., Java, J.J., Conroy, J.M., and Nowak, N.J. (2007). Estimating the Arm-Wise False Discovery Rate in Array Comparative Genomic Hybridization Experiments. *Statistical Applications in Genetics and Molecular Biology*, 6(1), Article 32.

Published Refereed Papers (Collaborative)

Cilhoroz, B.T., **Schifano, E.D.**, Ash, G.I., Panza, G.A., Corso, L., Chen, M-H., Deshpande, V., Zaleski, A., Farinatti, P., Santos, L.P., Taylor, B.A., O'Neill, R.J., Thompson, P.D., and Pescatello, L.S. (2019). *FURIN* Variant Associations with Postexercise Hypotension are Intensity and Race Dependent. *Physiological Reports*, 7(3), e13952.

Greenberg, J., Braun, T., Schneider, M.L., Finklestein-Fox, L., Conboy, L.A., **Schifano, E.D.**, Park, C. and Lazar, S.W. (2018). Is Less More? A randomized comparison of home practice time in a mind-body program. *Behaviour Research and Therapy*, 111, 52–56.

Hollenbach, J.P., **Schifano, E.D.**, Hammel, C. and Cloutier, M.M. (2017). Exposure to Secondhand Smoke and Asthma Severity among Children in Connecticut. *PLoS ONE*, 12(3), e0174541.

Pescatello, L.S., **Schifano, E.D.**, Ash, G.I., Panza, G.A., Lamberti, L., Chen, M-H., Deshpande, V., Zaleski, A., Cilhoroz, B., Farinatti, P., Taylor, B.A., O'Neill, R.J., and Thompson, P.D. (2017). Deep-Targeted Sequencing of Endothelial Nitric Oxide Synthase Gene Exons Uncover Exercise Intensity and Ethnicity Dependent Associations with Postexercise Hypotension. *Physiological Reports*, 5(22), e13510.

Pescatello, L.S., **Schifano, E.D.**, Ash, G.I., Panza, G.A., Lamberti, L., Chen, M-H., Deshpande, V., Zaleski, A., Farinatti, P., Taylor, B.A., and Thompson, P.D. (2016). Deep-Targeted Exon Sequencing Reveals Renal Polymorphisms Associate with Postexercise Hypotension among African Americans. *Physiological Reports*, 4(19), e12992.

Schifano, E.D., Hollenbach, J.P., and Cloutier, M.M. (2014). Mismatch between asthma symptoms and spirometry - Implications for managing asthma in children. *Journal of Pediatrics*, 165(5), 997−1002.

Figueroa, M.E., Lugthart, S., Li, Y., Erpelinck-Verschueren, C., Deng, X., Christos, P.J., **Schifano, E.D.**, Booth, J.G., van Putten, W., Skrabanek, L., Campagne, F., Mazumdar, M., Greally, J.M., Valk, P.J., Lowenberg, B., Delwel, R., and Melnick, A. (2010). DNA Methylation Signatures Identify Biologically Distinct Subtypes in Acute Myeloid Leukemia. *Cancer Cell*, 17, 13−27.

Book Chapters

Schifano, E.D., Bar, H, and Harel, O. (2015). Methods for Analyzing Secondary Outcomes in Public Health Case-Control Studies. In D Chen and J Wilson (Eds.) *Innovative Statistical Methods for Public Health Data* (pp 3–15). Springer New York.

Submitted Manuscripts

Lee, J.[†], **Schifano, E.D.**, and Wang, H. Fast Optimal Subsampling Probability Approximation for Generalized Linear Models, (*Under Review: Econometrics and Statistics*).

Xue, Y.[†], **Schifano, E.D.**, and Hu, G. Online Updating of Nonparametric Survival Estimator and Nonparametric Survival Test, (*Under Revision: Springer Book on Biostatistics and Bioinformatics*).

Wu, J.[†], Chen, M-H., **Schifano, E.D.**, and Yan, J. Online Updating of Survival Analysis, (*Under Revision: Journal of Computational and Graphical Statistics*).

Garcia-Sierra, A., **Schifano, E.D.**, Duncan, G.M., and Fish, M.S. The Context that Establishes the Boundary: An Analysis of the Perception of Stop Consonants in Bilinguals and Monolinguals in Two Different Phonetic Contexts, (*Under Revision: Attention, Perception, & Psychophysics*).

Gherlone, N.D., **Schifano, E.D.**, Blodgett, A., Cloutier, M.M., Trapp, C., and Hollenbach, J.P. Support from Key Individuals Prolongs Breastfeeding Duration in a Majority Latina Sample, (*Accepted pending revision: American Medical Student Research Journal*).

[†]Student

Braun, T.D., **Schifano, E.D.**, Finklestein-Fox, L., Park, C.L., Conboy, L.A., Deshpande, R., Riley, K.E., and Lazar, S.W. Mindful Yoga and Reductions in Energy Intake among Stressed Adults with Poor Diet, (*Under Review: Journal of Nutrition Education and Behavior*).

Braun, T.D., Park, C.L., **Schifano, E.D.**, Finklestein-Fox, L., Conboy, L.A., Deshpande, R., Riley, K.E., and Lazar, S.W. Changes in psychosocial and embodiment-related risk and protective factors and associations with emotional eating in stressed adults during yoga: A pilot clinical trial, (*Under Review: Body Image*).

Dibble, K.E., Bellizzi, K.M., Taxel, P., Pescatello, L.S., Siembida, E.J., **Schifano, E.D.**, Guarneri, S., and Tannenbaum, S. Physical Activity and Health-Related Quality of Life among Postmenopausal Women with Breast Cancer treated with Aromatase Inhibitors, (*Under Revision: Supportive Care in Cancer*).

Non-refereed & Technical Reports*

Xue, Y.†, Yan, J., and **Schifano, E.D.** (2019). Simultaneous Monitoring for Regression Coefficients and Baseline Hazard Profile in Cox Modeling of Time-to-Event Data, (*University of Connecticut, Department of Statistics Technical Report, 19-24*).

Lee, J.†, Wang, H., **Schifano, E.D.** (2019). Online Updating Method to Correct for Measurement Error in Big Data Streams, (*University of Connecticut, Department of Statistics Technical Report, 19-19*).

Wu, J.†, Chen, M-H., **Schifano, E.D.**, and Yan, J. (2018). Online Updating of Survival Analysis, (*University of Connecticut, Department of Statistics Technical Report, 18-30*).

Xue, Y.†, **Schifano, E.D.**, and Hu, G. (2018). Geographically Weighted Cox Regression for Prostate Cancer Survival Data in Louisiana, (*University of Connecticut, Department of Statistics Technical Report, 18-29*).

Xue, Y.†, **Schifano, E.D.**, and Hu, G. (2018). Online Updating of Nonparametric Survival Estimator and Nonparametric Survival Test, (*University of Connecticut, Department of Statistics Technical Report, 18-19*).

Deshpande, V.†, **Schifano, E.D.**, and Dey, D.K. (2017). Fully and empirical Bayes approaches to estimating copula-based models for bivariate mixed outcomes using Hamiltonian Monte Carlo, (*University of Connecticut, Department of Statistics Technical Report, 17-20*).

Bar, H.Y. and **Schifano, E.D.** (2009). Bayesian Approaches for Random Effects Models in Microarray Analysis. *Proceedings of the 24th International Workshop on Statistical Modelling*, 53−60.

Schifano, E.D. and Strawderman, R.L. (2007). Generalized Wavelet Thresholding with Applications to Array Comparative Genomic Hybridization, (*Cornell University, Department of Statistical Sciences Technical Report*).

Active Grants

Microbiota modulation of chemotherapy-related pain and fatigue in colorectal cancer patients — PI: Xu
Oncology Nursing Society Foundation, Co-Investigator — (01/2019 - 01/2021)

Muscle-Specific MicroRNAs as a Novel Biomarker to Predict Statin-Associated Muscle Damage — PI: Zaleski
American Heart Association, Consultant — (01/2019 - 12/2020)

Completed Grants

Data Science Lab: Real World Data Science Problems Meet Future Data Scientists — PIs: Chen, Yan, Schifano
University of Connecticut College of Liberal Arts and Sciences — (01/2017-12/2019)

†Student; *Earlier reports corresponding to now published work not listed

Near Infrared Spectroscopy (NIRS) to Diagnose Statin Myopathy — PI: Taylor
American Heart Association, Co-Investigator — (06/2017 - 06/2019)

Modeling and Analysis of Large Insurance Claim and Occurrence Data:
A partnership between UConn and Travelers Insurance — PI: Dey
Travelers Insurance, Co-Investigator — (08/2017-8/2018)

Building UConn's Leadership capacity in Single Cell Biology
by Uniting an Interdisciplinary Team around the First High Resolution
Cell Lineage Map of the Mouse Embryo — PI: Nelson
University of Connecticut, Collaborator — (7/2015-6/2018)

Modeling and Analysis of Large Insurance Claim and Occurrence Data:
A partnership between UConn and Travelers Insurance — PI: Dey
Travelers Insurance, Co-Investigator — (08/2016-8/2017)

Easy Breathing Collaboration 2016 (Subcontract; M. Cloutier, MD) — PI: Schifano
CT Children's Medical Center/CT Dept Public Health — (7/2015-6/2016)

Exercise, Bone and Cardiovascular Health in Breast Cancer Survivors — PI: Bellizzi
University of Connecticut,
Center for Health, Intervention, and Prevention, Co-Investigator — (7/2014-6/2016)

Preliminary Study of a Yoga Program to Catalyze Health Behavior Change — PIs: Park and Lazar
NIH/NCCAM R34, Co-Investigator — (9/2013-6/2016)

CC-NIE Network Infrastructure: Enabling Data-intensive Research
at the University of Connecticut Through Science DMZ — PI: Wang
NSF, Collaborator — (11/2013-10/2015)

Continued Collaboration on Easy Breathing Program (Subcontract; M. Cloutier, MD) — PI: Schifano
CT Children's Medical Center/CT Dept Public Health — (7/2014-6/2015)

Statistical Methods for High Dimensional Data — PI: Schifano
University of Connecticut Research Foundation — (7/2013-6/2014)

Cardiometabolic Signatures Associated with Obesity & Hypertension
& Their Response to Exercise — PI: Pescatello
University of Connecticut Health Center, Co-Investigator — (12/2013-9/2014)

Collaboration on Easy Breathing Program (Subcontract; M. Cloutier, MD) — PI: Schifano
CT Children's Medical Center/CT Dept Public Health — (7/2012-6/2013)

Invited Seminars or Presentations

Statistical Methods for Big Stream Data
- Graduate Student Research Day, University of Toronto Department of Statistical Sciences, Fields Institute, Toronto, ON, Canada (2019)

Survival Analysis for Big Data in Streams
- Big Data and Information Analytics, Rice University, Houston, TX (2018)

Online Updating Method with New Variables for Big Data Streams
- Statistical Society of Canada Annual Meeting, McGill University, Montreal, QC, Canada (2018)
- Modern Modeling Methods Conference, University of Connecticut, Storrs, CT (2018)
- New England Statistics Symposium, UMass Amherst, Amherst, MA (2018)

Variable Selection with Correlated Bivariate Mixed Outcomes with Penalized Estimating Equations
- International Society of Business and Industrial Statistics,
  IBM T. J. Watson Research Center, Yorktown Heights, NY (2017)

Robust Analysis for Multiple Secondary Phenotypes from Case-Control
Genomewide Association Studies
- International Chinese Statistical Association International Conference,
  Shanghai Jiao Tong University, Shanghai, China (2016)
- Modern Modeling Methods Conference, University of Connecticut, Storrs, CT (2016)
- New England Statistics Symposium, Yale University, New Haven, CT (2016)

Online Updating of Inference in the Big Data Setting
- Institute for Operations Research and the Management Sciences
  (INFORMS) Annual Meeting, Nashville, TN (2016)
- New England Statistics Symposium, University of Connecticut, Storrs, CT (2015)
- Department of Mathematics and Statistics, UMass Amherst, Amherst, MA (2014)
- Statistical and Computational Theory and Methodology for Big Data Analysis,
  Banff International Research Station, Banff, AB, Canada (2014)

Weighted Pseudolikelihood for Analysis of Multiple Secondary Phenotypes
in Genetic Association Studies
- Department of Statistics, Penn State University, State College, PA (2016)
- Department of Biostatistics, Yale School of Public Health, New Haven, CT (2014)
- International Chinese Statistical Association Symposium, Bethesda, MD (2013)
- Modern Modeling Methods Conference, University of Connecticut, Storrs, CT (2013)

Methods for Analyzing Secondary Outcomes in Public Health Case-Control Studies
- Modern Modeling Methods Conference, University of Connecticut, Storrs, CT (2015)

An Overview of Multiple Comparison Methods
- Center for Health, Intervention, and Prevention, University of Connecticut, Storrs, CT (2014)

A Weighted Pseudolikelihood Approach for Eliminating Ascertainment Bias and Improving Quality when Utilizing a Case-Control GWAS to Assess Genetic Association with Smoking Habits
- Quality & Productivity Research Conference & Spring Research Conference, Seattle, WA (2014)

Model Selection through Sparse Estimation in Finite Mixture Regression Models
- Modern Modeling Methods Conference, University of Connecticut, Storrs, CT (2014)

Methods for Variable Selection in Genome-wide Association Studies
- Department of Statistics, University of Connecticut, Storrs, CT (2012)

Testing with Correlated Data in Genome-wide Association Studies
- Department of Biostatistics & Computational Biology, University of Rochester,
  Rochester, NY (2012)
- Department of Biostatistics, Johns Hopkins School of Public Health, Baltimore, MD (2012)
- Department of Computer Science & Statistics, University of Rhode Island, Kingston, RI (2012)
- Department of Epidemiology and Biostatistics, University at Albany, Rensselaer, NY (2012)
- Center for Health, Intervention, & Prevention, University of Connecticut, Storrs, CT (2012)

MM Algorithms for Nonsmoothly Penalized Objective Functions
- Department of Biostatistics, Harvard School of Public Health, Boston, MA (2010)
- Computational Genomics Seminar, Johns Hopkins School of Public Health, Baltimore, MD (2010)
- Department of Statistical Science, Cornell University, Ithaca, NY (2009)

Generalized Wavelet Thresholding with an Application in Cancer Genomics
- Department of Statistical Science, Cornell University, Ithaca, NY (2007)

Estimating the Arm-Specific False Discovery Rate in
Array Comparative Genomic Hybridization Experiments
- Center of Excellence in Bioinformatics & Life Sciences Academic Symposium, (Poster) Buffalo, NY (2006)
- Department of Statistical Science, Cornell University, Ithaca, NY (2005)
- Department of Biostatistics, University at Buffalo, Buffalo, NY (2005)

Contributed Presentations

Online Updating of Survival Analysis (Topic Contributed)
- Joint Statistical Meetings, Denver, CO (2019)

Weighted Pseudolikelihood for Analysis of Multiple Secondary Phenotypes
in Genetic Association Studies
- Joint Statistical Meetings, Montreal, QC, Canada (2013)
- Eastern North American Region Conference, Orlando, FL (2013)

Genome-wide Association Analysis for Multiple Secondary Continuous Phenotypes
- Eastern North American Region Conference, Washington, DC (2012)
- Program in Quantitative Genomics Conference (Poster), Harvard School of Public Health, Boston, MA (2011)
- Molecular Epidemiology of Cancer Seminar, Harvard School of Public Health, Boston, MA (2011)

Improved Power with Common Exposure in Multiple Continuous Outcomes
- Program in Quantitative Genomics Retreat, Harvard School of Public Health, Boston, MA (2011)

SNP Set Analysis in Genome-wide Association Studies for Familial Data
- Eastern North American Region Conference, Miami, FL (2011)

Bayesian Approaches to Random Effects Models in Microarray Analysis
- International Workshop on Statistical Modelling, Cornell University, Ithaca, NY (2009)

Honors and Awards

International Statistical Institute Elected Member (2018)

Association for Women in Science (2013)
Featured Profile in "Women Working in the Statistical Sciences"

Program in Quantitative Genomics Postdoc Travel Award, Harvard School of Public Health (2012)

Best Student Oral Presentation, 24th International Workshop on Statistical Modelling (2009)

Olin Fellowship, Cornell University (Fall 2004 - Spring 2005, Summer 2006, Summer 2007)
Graduate Fellowship

Dean's Award for Academic Excellence, Cornell University (May 2004)
Awarded to top graduating student in Biometry and Statistics

Ho-Nun-De-Kah College Honor Society (2002 - present)

Golden Key International Honour Society (2002 - present)

National Society of Collegiate Scholars (2000 - present)

Service

Profession

Office Positions:
- Section Councilor (Elected), Applied Public Health Statistics Section of American Public Health Association (2014-2017, 2017-present)

Ad Hoc or Panel Reviewer:
- National Science Foundation, Ad Hoc Reviewer (2020)
- Federal Motor Carrier Safety Administration (US Department of Transportation)/ Virginia Tech Transportation Institute, Peer Review Team (2019)
- National Science Foundation, Statistics Panel (2018)

Journal Activities:

- Associate Editor, Journal of Computational and Graphical Statistics (2018-present)
- New England Statistical Society Committee on Journal and Publication (2018-present)

Conference Session Chair/Organizer:

- Joint Statistical Meetings, Denver, CO - Organizer (2019)
- New England Statistics Symposium, Hartford, CT - Chair and Organizer (2019)
- Modern Modeling Methods Conference, Storrs, CT - Chair (2018)
- American Public Health Association Annual Meeting, Atlanta, GA - Chair (2017)
- Lifetime Data Analysis Conference, Storrs, CT - Chair and Organizer (2017)
- International Chinese Statistical Association Conference, Shanghai, China - Chair (2016)
- Joint Statistical Meetings, Montreal, QC - Chair (2013)
- New England Statistics Symposium, Storrs, CT - Chair (2013)

Peer Reviewer:

- American Mathematical Monthly, Applied Stochastic Models in Business and Industry, Bioinformatics, Biometrics, Biostatistics, Communications in Statistics - Case Studies & Data Analysis, Communications in Statistics – Theory and Methods, Computational Statistics and Data Analysis, Electronic Journal of Statistics, Journal of the American Statistical Association, Statistica Sinica, Statistics and Its Interface, Statistics in Medicine,
- IEEE Transactions on Signal Processing, Journal of Electrical and Electronics,
- Annals of Human Genetics, Human Heredity.

Awards Committees:

- Award Selection Committee, Applied Public Health Statistics Section of American Public Health Association (Member: 2015, 2016; Chair: 2017, 2018, 2019, 2020)
- Student Poster Competition Judge, University of Toronto Department of Statistical Sciences Graduate Student Research Day, Toronto, ON, Canada (2019)
- Student Paper Competition Judge, Applied Public Health Statistics Section of American Public Health Association Annual Meeting, Denver, CO (2016)
- Student Poster Competition Judge, New England Statistics Symposium, Storrs, CT (2015)
- Student Paper Competition Judge, New England Statistics Symposium, Storrs, CT (2015)

Department of Statistics, University of Connecticut, Storrs, CT

Administrative Positions:

- Undergraduate Program Director (Fall 2019 - present)
- Undergraduate Program Faculty Academic Advisor (Fall 2016 - Spring 2019)

Committees:

- Undergraduate Data Science Major Committee (Spring 2020 - present)
- Undergraduate Course Curriculum Committee (Fall 2016 - present)
- Graduate Students and Distinguished Alumni Awards Committee (Fall 2017 - present)
- Department Events Committee (Fall 2012 - present)
- Statistics Assistant/Associate Professor Faculty Job Search Committee (Spring 2019)
- Statistical Consulting Services Director Search Committee (Spring 2018-Spring 2019)
- Department By-Laws Committee (Spring 2018)
- Statistics Assistant Professor Faculty Job Search Committee (Spring 2017)
- New England Statistical Society Committee (Fall 2016 - Spring 2017)
- Qualifying Examination Committee (Fall 2015 - Spring 2017)
- Statistics Department Headship Search Committee (Spring 2016)
- Gratis Faculty Appointments Committee (Fall 2015)
- Makuch Distinguished Lecture in Biostatistics Selection Committee (Fall 2014)
- Statistics Assistant Professor Faculty Job Search Committee (Spring 2014)
- Biostatistics Program Development Committee (Fall 2013)
- Library/Technical Reports Committee (Fall 2012, Spring 2013)

University of Connecticut, Storrs, CT
College of Liberal Arts & Sciences
- Undergraduate Data Science Task Force, Co-chair (2020-)

Center for Health, Intervention, and Prevention (CHIP)
- Statistical Support Services: 10 hours/week AY to CHIP PIs and affiliates; student supervision (2012-2014)

Department of Biostatistics, Harvard School of Public Health, Boston, MA
Organizer:
- Program in Quantitative Genomics Working Group Seminar Series (2011-2012)

Professional Affiliations

International Statistical Institute (2018 - present)

New England Statistical Society (2018 - present)

American Public Health Association (2014 - present)

International Chinese Statistical Association (2013 - present)

University of Connecticut Institute for Collaboration on Health, Intervention, and Policy (2012 - present)

American Statistical Association (2009 - present)

Institute of Mathematical Statistics (2008 - present)

Academic Advising

Ph.D. Students:
- (Co-)Major Advisor: Jiyeon Song (2019-), JooChul Lee (2016-), Yishu Xue (2016-2019; Travelers Insurance, Hartford, CT), Jing Wu (2014-2017; University of Rhode Island, Kingston, RI), Ved Deshpande (2014-2017; eBay, New York, NY), Chun Wang (2014-2016; Liberty Mutual Group, Boston, MA)
- Associate Advisor: Yaqiong Yao (2020-), Wenjie Wang (2018-2019), Hao Li (2017-2018), Fan Zhang (2017-2018), Ruochen Zha (2016-2018), Aditya Mishra (2016-2017)
- Center for Health, Intervention, and Prevention Research Assistant Supervisor: Yaohua Zhang (2014), Michal Monselise (2013-2014), Gyuhyeong Goh (2012-2013)

Masters and Professional Masters Students:
- Major Advisor: Ching-Ying Huang (2019-), Zhehao Cao (2018-2020), Yiwei Ma (2018-2020), Jui-Chang Ting (2018-2020), Feng Wang (2018-2020), Zehan Yang (2018-2020), Zhiyi Liu (2017-2018), Mingjia Li (2016-2018), Shuyi Liang (2016-2018), Shangqu Liu (2016-2018)
- Associate Advisor: 40 advisees (10 current)

Undergraduate Student Research Advisees:
- Magdalene Mlynek, Saurabh Kumar (Spring 2020)
- Ningning Zhu (Spring 2019)

Undergraduate Students:
- 70 Major Advisees (2019 - 2020)
- 90 Major Advisees (2018 - 2019)
- 74 Major Advisees (2017 - 2018)
- 85 Major Advisees (2016 - 2017)