# Whitney Huang

Contact

School of Mathematical and Statistical Sciences

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https://whitneyhuang83.github.io/

CITIZENSHIP

Information

United States

Research Interests Statistics of extremes; Spatio-temporal statistics; Design and analysis of computer experiments; Climate and environmental applications; High-frequency physiological data analysis.

Last update: 03/24/2025

EMPLOYMENT

Clemson University, Clemson, SC

Aug. 2019 to Present

 Assistant Professor of Applied Statistics and Data Science, School of Mathematical and Statistical Sciences

Statistical and Applied Mathematical Sciences Institute (SAMSI) and Canadian Statistical Sciences Institute (CANSSI)

Aug. 2017 to July 2019

- CANSSI Postdoctoral Fellow, Pacific Climate Impacts Consortium and School of Earth and Ocean Sciences, University of Victoria, Victoria, BC, Canada Mentored by Dr. Francis Zwiers and Dr. Adam H. Monahan Aug. 2018 to July 2019
- SAMSI Postdoctoral Fellow, Program on Mathematical and Statistical Methods for Climate and the Earth System, University of North Carolina at Chapel Hill, Chapel Hill, NC. Mentored by Dr. Richard L. Smith

  Aug. 2017 to July 2018

EDUCATION

Ph.D. in Statistics, Purdue University, West Lafayette, IN

Aug. 2017

• Advisor: Dr. Hao Zhang, Professor, Statistics, Forestry and Natural Resources

M.S. in Statistics, The University of Akron, Akron, OH

Dec. 2009

• Advisor: Dr. Desale Habtzghi, (Now Associate Professor, DePaul University)

B.S. in Mechanical Engineering, National Cheng Kung University, Taiwan

June 2006

# REFEREED PUBLICATIONS

## Citations (from Google Scholar)

- Total number of citations = 437
- h-index = 9
- i10-index = 9 (# publications with at least 10 citations)
- Murphy, E., Huang, W.K., Bessac, J., Wang, J. and Kotamarthi, R. (2025) Joint Modeling of Wind Speed and Wind Direction Through a Conditional Approach. *Environmetrics*, 36: e70011.
- Russell, B.T., Ding, Y., Huang, W.K. and Dyer, J.L. (2024) Characterizing Asymptotic Dependence between a Satellite Precipitation Product and Station Data in the Northern US Rocky Mountains via the Tail Dependence Regression Framework With a Gibbs Posterior Inference Approach. *Environmetrics*, e2890.
- 3. Li, J., Russell, B. T., **Huang, W. K.**, and Porter, W. C. (2024) Modeling nonstationary surface-level ozone extremes through the lens of US air quality standards: A Bayesian hierarchical approach. *Environmetrics*, e2882.
- 4. Chung, YM, **Huang, W. K.**, Wu, HT. (2024) Topological Data Analysis Assisted Automated Sleep Stage Scoring Using Airflow Signals. *Biomedical Signal Processing & Control* 89:105760.

- Parris, S., Huang, W. K., Jones, D., Bridges, W., Olvey, J., Olvey, M., Saski, C. (2023) Geostatistical techniques to account for the heterogeneity of Fusarium wilt inoculum distribution in upland cotton field screening studies. *Crop Science* 63(3), 1316-1329.
- Wu, Q., Bessac, J., Huang, W. K., Wang, J., Kotamarthi, R. (2022) A conditional approach for joint estimation of wind speed and direction under future climates. Advances in Statistical Climatology, Meteorology and Oceanography, 8(2), 205-224.
- Wu, H, Tan, X., Zhang, Q., Huang, W. K., Lu, X., Nishimura, Y., Zhang, Y. (2022) Multiresolution data assimilation for auroral energy flux and mean energy using DMSP SSUSI, THEMIS ASI, and an empirical model. Space Weather 20(9):e2022SW003146.
- Yaddanapudi, R., Mishra, A., Huang W. K., Chowdhary, H. (2022) Compound Wind and Precipitation Extremes in Global Coastal Regions under Climate Change. Geophysical Research Letters 49(15): e2022GL098974
- Huang, W. K., Chung, YM, Wang, YB, Mandel J. E., Wu, HT. (2022) Airflow recovery from thoracic and abdominal movements using Synchrosqueezing Transform and Locally Stationary Gaussian Process Regression. Computational Statistics & Data Analysis (174): 107384.
- 10. **Huang, W. K.**, Monahan , A. H., Zwiers, F. W. (2021) Estimating Concurrent Climate Extremes: A Conditional Approach. *Weather and Climate Extremes* (33): 100332.
- 11. Russell, B. T., and **Huang, W. K.**. (2021) Modeling short-ranged dependence in block extrema with application to polar temperature data *Environmetrics*, 32(3):e2661.
- Huang, W. K., Cooley, D. S., Ebert-Uphoff, I., Chen, C., Chatterjee, S.B. (2019)
   New Exploratory Tools for Extremal Dependence: χ Networks and Annual Extremal Networks. Journal of Agricultural, Biological, and Environmental Statistics, 20(3), 484–501.
- 13. **Huang, W. K.**, Nychka, D. W., Zhang, H. (2019) Estimating Precipitation Extremes using Log-Histospline. *Environmetrics*, 30(4):e2543, 1–15.
- Huang, W. K., Stein, M. L., McInerney, D. J., Sun., S., Moyer, E. J. (2016) Estimating changes in temperature extremes from millennial scale climate simulations using generalized extreme value (GEV) distributions. Advances in Statistical Climatology, Meteorology and Oceanography, 2, 79–103.
- 15. Wang, J., Han, Y., Stein, M. L., Kotamarthi, R., **Huang W. K.** (2016) Evaluation of dynamically downscaled extreme temperature using a spatially-aggregated generalized extreme value (GEV) model. *Climate Dynamics*, 47(9), 2833–2849.
- 16. Dixon Hamil, K., Iannone III, B. V., **Huang, W. K.**, Fei, S., Zhang, H. (2016) Cross-scale contradictions in ecological relationships. *Landscape Ecology*, 31(1), 7–18.
- Iannone III, B. V., Potter, K. M., Dixon Hamil, K., Huang, W. K., Zhang, H., Guo, Q., Oswalt, C. M., Woodall, C. W., Fei, S. (2016) Evidence of biotic resistance to invasions in forests of the Eastern USA. *Landscape Ecology*, 31(1), 85–99.

REFEREED WHITE PAPERS AND CONFERENCE PROCEEDINGS

 Feng, Y., Maulik, R., Wnag, J., Balaprakash, P., Huang, W. K., Rao, Vishwas, Xue, P., Pringle, W., Bessac, J., and Sullivan, R. "Characterization of extremes and compound impacts: Applications of machine learning and interpretable neural networks," Artificial Intelligence for Earth System Predictability (AI4ESP) Collaboration, (United States), 2021.

- Ebert-Uphoff, I., Huang, W. K., Mitra, A, Cooley, D.S., Chatterjee, S.B., Chen, C., and Wang, Z. (2018) Studying extremal dependence in climate using complex networks. Proceedings of the 8th International Workshop on Climate Informatics (CI 2018), Boulder, CO, 2018.
- 3. Malik, A., Maciejewski, R., Elmqvist, N., Jang, Y., Ebert, D. S., and **Huang, W.** (2012) A correlative analysis process in a visual analytics environment. *Visual Analytics Science and Technology (VAST)*, 2012 IEEE Conference on, 33–42.

#### MENTORING

- Doctoral Advisor or Co-advisor
  - Eva Murphy, School of Mathematical and Statistical Sciences, Clemson University Apr. 2021 - Aug. 2023

First Position After Graduation: Postdoctoral Fellow, Department of Statistical Sciences, Wake Forest University

#### Awards:

- Outstanding Graduate in Research Award, School of Mathematical and Statistical Sciences, Clemson University
   April 2023
- ASA Section on Statistics and the Environment (ENVR) Student Paper Award Jan. 2023
- The Institute for Mathematical and Statistical Innovation (IMSI) travel awards for attending the long program on "Confronting Global Climate Change"

Sep., Oct., Nov. 2022

- ASA Section on Statistics and the Environment (ENVR) travel award for attending ENVR 2022 Workshop: Environmental and Ecological Statistical Research and Applications with Societal Impacts, Provo, UT
   Oct. 2022
- Clemson Graduate Travel Grant

Oct. 2022

- Dr. Kenyon Fairey Graduate Fellowship
- Sep. 2022 May 2023
- Call Me Doctor Dissertation Completion Grant Aug. 2022 Aug. 2023
- Student Presentation Award at the SC-ASA Palmetto Symposium April 2022
- 2. Kanon Kamronnaher, School of Mathematical and Statistical Sciences, (Co-advised with Colin Gallagher), Clemson University

  June. 2021 Dec. 2023
- 3. Jiyun Huang, School of Mathematical and Statistical Sciences, (Co-advised with Brook Russell), Clemson University Feb. 2022 present Awards:
  - Clemson Graduate Travel Grant

Apr. 2023

- ASA ENVR travel award for attending ENVR 2022 Workshop: Environmental and Ecological Statistical Research and Applications with Societal Impacts, Provo. UT
   Oct. 2022
- 4. Katherine Kreuser, School of Mathematical and Statistical Sciences, Clemson University Jan. 2023 - present

#### Awards:

- ASA ENVR travel award for attending ENVR 2024 Workshop: Spatial Data Science for the Environment, Boulder, CO
   Oct. 2024
- The Institute for Mathematical and Statistical Innovation (IMSI) travel awards for attending the long program on "Uncertainty Quantification and AI for Complex Systems"
   Mar.-May 2025
- Doctoral Advisory Committee Member
  - Sanduni Caldera, School of Mathematical and Statistical Sciences, Clemson University Sep. 2024-present

- Kelie Marline Momo Nizegha, School of Mathematical and Statistical Sciences, Clemson University
   Aug. 2024-present
- 3. N'golo Saliou Ouattara, School of Mathematical and Statistical Sciences, Clemson University

  Aug. 2024-present
- Saika Islam Meim, Department of Environmental Engineering and Earth Sciences, Clemson University
   Jan. 2024-July 2024
- Kristen Joyce, School of Mathematical and Statistical Sciences, Clemson University Nov. 2023-Present
- 6. Yezhuo Li, School of Mathematical and Statistical Sciences, Clemson University

  July 2023-Present
- 7. Rajan Ratnakumar, Department of Electrical and Electronic Engineering, Clemson University March. 2023-Present
- 8. Stephen Parris, Plant and Environmental Sciences Department, Clemson University Sep. 2022-Dec. 2023
- 9. Kenneth Blake Greene, Food, Nutrition, and Packaging Sciences, Clemson University Feb. 2022 to Dec. 2024
- 10. Srinivasan Nagarajan, Glenn Department of Civil Engineering, Clemson University Jan. 2022-July 2022
- 11. Camilius Amevorku, Glenn Department of Civil Engineering, Clemson University
  Aug. 2021-Nov. 2022
- 12. Zhen Liu, School of Mathematical and Statistical Sciences, Clemson University
  Jan. 2020-Aug. 2021
- Argonne National Laboratory (ANL) Graduate Internship mentor (joint with Jiali Wang, Atmospheric Scientist, ANL and Julie Bessac, Assistant Computational Statistician)
  - Qiuyi Wu, Ph.D. student, Department of Biostatistics & Computational Biology, University of Rochester
     2019 & 2020 Summer
- MS Committee Chair/Co-Chair
  - Peiying Li, School of Mathematical and Statistical Sciences, Clemson University
     Aug. 2023 May 2024
  - 2. Katherine Kreuser, School of Mathematical and Statistical Sciences, Clemson University. Current position: Ph.D. student at SMSS, Clemson Univ. Jan. 2022 Apr. 2022
  - 3. Adam Diaz, School of Mathematical and Statistical Sciences, Clemson University.

    Current position: Principal Research Statistician at Northern California Institute
    for Research and Education

    May. 2021 Apr. 2022
  - 4. Emily Tidwell, School of Mathematical and Statistical Sciences, Clemson University. Current position: Dynetics, Huntsville, Alabama Aug. 2020 to Apr. 2021
  - 5. Andrew Bellucco, M.S., Mathematical and Statistical Sciences, Clemson University (Co-advised with Colin Gallagher). Current position: Recommendation Analytics at Credit Karma, Charlotte, NC Sep. 2019 to Dec. 2019
- MS Committee Member
  - 1. Naomi Edegbe, School of Mathematical and Statistical Sciences, Clemson University May 2024 present
  - Philip Smith, School of Mathematical and Statistical Sciences, Clemson University Nov. 2023 to Apr. 2024
  - 3. Shuhei Morita, School of Mathematical and Statistical Sciences, Clemson University Nov. 2022 to Apr. 2023
  - 4. Elliott Degbe, School of Mathematical and Statistical Sciences, Clemson University
    Dec. 2021 to Apr. 2022

- 5. Jax Li, School of Mathematical and Statistical Sciences, Clemson University Nov. 2021 to Apr. 2022
- 6. Sydney Newman, School of Mathematical and Statistical Sciences, Clemson University Oct. 2021 to Apr. 2022
- 7. Andrew Otte, School of Mathematical and Statistical Sciences, Clemson University Oct. 2021 to Apr. 2022
- 8. Jushawn Macon, School of Mathematical and Statistical Sciences, Clemson University Sep. 2021 to Apr. 2023
- 9. Heidi-Jo Shuttleworth, School of Mathematical and Statistical Sciences, Clemson University

Apr. 2021 to Nov. 2021

- 10. Jack Huang, Food, Nutrition, and Packaging Sciences, Clemson University
  - Jan. 2020 to Nov. 2021
- 11. Abdul Mahama, School of Mathematical and Statistical Sciences, Clemson University Jan. 2021 to Apr. 2021
- 12. Michael Foss, School of Mathematical and Statistical Sciences, Clemson University Ocu. 2020 to Apr. 2021.
- 13. Tianqi Zhang, School of Mathematical and Statistical Sciences, Clemson University Aug. 2020 to Oct. 2020
- 14. Tyler Sullivan, School of Mathematical and Statistical Sciences, Clemson University Jan. 2020 to Apr. 2020
- Undergraduate Advisor
  - 1. Megan, Mccabe, School of Mathematical and Statistical Sciences

Oct. 2023-Present

2. Kayla Lillo, School of Mathematical and Statistical Sciences

Sep. 2023-Present

- 3. Isabella Guerriero, School of Mathematical and Statistical Sciences
  - Feb. 2023-May. 2023
- 4. Kylie Prinzo, School of Mathematical and Statistical Sciences

Feb. 2023-Present

- 5. Katie Murrell, School of Mathematical and Statistical Sciences
  - Aug. 2021-May 2022
- 6. Michael Grieb, School of Mathematical and Statistical Sciences

Aug. 2021-May 2022

7. Marissa Lewandowski, School of Mathematical and Statistical Sciences

Nov. 2020-May 2023

8. Jason Turenchalk, School of Mathematical and Statistical Sciences

Feb. 2020 to Dec. 2020

- COURAGE: Clemson Online Undergraduate Research on Algebra and Graphs Expanded June 2020 to Aug. 2020
  - 1. Alexander Harriman: "Analyzing Worst-Case Scenarios for Transportation Security Administration (TSA) Claim Data"
  - 2. Sylvia Wu: "Extreme value analysis with the temperature in Mobile, AL"
  - 3. Emily Graham: "Extreme value analysis applied to Tornadoes"
- SAMSI Undergraduate Modelling Workshop: Extreme value analysis of Gulf coast rainfall, group leader May 2018
  - 1. Seth Temple, Senior in Mathematics at University of Oregon. Currently a Ph.D. student of Statistics at University of Washington
  - 2. Jessica Robinson, Senior in Mathematics at Portland State University. Currently a Master's student of Statistics at Oregon State University

- 3. Adam Wu, Senior in Economics/Mathematics at Indiana University Bloomington. Currently Quantitative Trader/Researcher in New York
- 4. Erin Song, Junior in Statistics at Rice University. Currently Data Scientist at IBM
- 5. Lin Ge, Junior in Statistics at North Carolina State University (NCSU). Currently a Ph.D. student of Statistics at NCSU
- 6. Jianan Jiang, Freshman in Computer Science Rice University.

# External Grants

- NSF DMS (\$22,000) 2024 ENVR Workshop "Spatial Data Science for the Environment", PI July 2024 June 2025
- DOE subcontact from Argonne National Lab (\$24,981) "Bias Correction of Downscaled Climate Model", Senior Personnel

  May 2024 Sept. 2024
- US Army Contracting Command-Detroit (\$872,143.16): Online Surrogate Optimization of the Tradespace, Co-PI Dec. 2023 Dec. 2025
- NSF DMS (\$33,147): Interdisciplinary Workshop on Weather and Climate Extremes, PI Sep. 2022-Aug. 2023

## Professional Visits

Research Member, The Institute for Mathematical and Statistical Innovation (IMSI) Confronting Global Climate Change Program, Chicago, IL Sep. 2022- Dec. 2022

Research Visitor, Department of Statistics, University of British Columbia

• Host: Prof. William J. Welch

Nov. 2018

Research Visitor, Department of Statistics & Actuarial Science, Simon Fraser University

• Host: Prof. Derek Bingham

Nov. 2018, June 2019

**Research Visitor**, The Institute for Mathematics Applied to Geosciences (IMAGe), National Center for Atmospheric Research (NCAR)

• Mentor: Dr. Douglas W. Nychka

Apr. 2015, Sep 2016, Apr. 2017

Research Visitor, Mathematics and Computer Science Division (MCS), Argonne National Laboratory

• Mentor: Dr. Emil Constantinescu

Mar. 2017

Research Visitor, Environmental Science Division (EVS), Argonne National Laboratory

• Mentor: Dr. V. Rao Kotamarthi

Mar 2015, July 2016, May 2019

Visiting student, Department of Statistics, University of Chicago

• Mentor: Prof. Michael L. Stein May 2013 - June 2013, May 2014 - June 2014

Visitor, NOAA's National Climatic Data Center

• Mentor: Dr. Dongsoo Kim

Nov. 2012, Dec. 2014

#### AWARDS Teaching Award

• Faculty Teaching Award, Clemson University April 2022 "For Excellent in Teaching to the School of Mathematical and Statistical Sciences."

#### Presentation/Poster Competition

• Best posters competition, Institute for Mathematics and its Applications (IMA) workshop on Forecasting from Complexity, Minneapolis, MN Apr. 2018

- 1st place in the Student Presenter Competition, Conference on Probability and Statistics in the Atmospheric Sciences, Baltimore, MD
- Runner-up in the student poster competition, Graybill/ENVR conference, Fort Collins, CO Sept. 2014

#### Travel Awards

- IMSI Workshop on Uncertainty Quantification for Material Science and Engineering, Chicago, IL Apr. 2025
- IMSI Workshop on UQ and Trustworthy AI Algorithms for Complex Systems and Social Good, Chicago, IL Mar. 2025
- NSF Workshop on Data-driven Modeling and Prediction of Rare and Extreme Events, Chicago, IL Nov. 2024
- NSF workshop on Collaborative Strategies for Predicting and Measuring Uncertainty in Rare Occurrences in Civil and Environmental Systems, Golden, CO Nov. 2024
- American Statistical Association (ASA) Climate and Extremes Roundtable, Boulder CO Oct. 2024
- NCAR 2023 ForceSMIP Stat/ML/Climate hackathon, Boulder, CO Aug. 2023
- ENVR 2022 Workshop: Environmental and Ecological Statistical Research Oct. 2022
- IMSI Workshop on Expressing and Exploiting Structure in Modeling, Theory, and Computation with Gaussian Processes, Chicago, IL Aug. 2022
- 2022 Mathematical and Physical Sciences Workshop for Young Investigators June 2022
- SAMSI MUMS Transition Workshop and SPUQ May 2019
- Coupling Uncertain Geophysical Hazards Workshop Mar. 2019
- SAMSI Opening Workshop on MUMS Sept. 2018
- 20th IMS New Researchers Meeting July 2018 Apr. 2018
- STATMOS/SAMSI Workshop on Climate Statistics July 2017
- Statistical Perspectives of Uncertainty Quantification May 2017
- Conference on Applied Statistics in Agriculture Apr. 2017

Oct. 2016

- Rossbypalooza Workshop: Climate meets Statistics at the UChicago July 2016
- STATMOS Workshop on High Performance Computing for Spatial Statistics Sept. 2015
- Workshop on Spatial Statistics Jan. 2015 • 2014 Graybill/ENVR Conference: Modern Statistical Methods for Ecology Sept. 2014
- Pan-American Advanced Study Institute on Spatio-Temporal Statistics June 2014
- SAMSI/NCAR Workshop on Massive Datasets in Environment and Climate Feb. 2013
- NSF-CBMS Regional Conference on Statistical Climatology Aug. 2012

## Student Awards – Purdue University

IMA workshop on Forecasting from Complexity

• STATMOS Workshop on Climate and Weather Extremes

- Purdue Research Foundation (PRF) Fellowship Aug. 2016 – May 2017
- Graduate School Summer Research Grants 2015
- Homeland Security Science, Technology, Engineering and Mathematics (HS-STEM) Career Development Program: This program is designed to support undergraduate and graduate students in developing the skills to become preeminent scientists in the homeland security scientific and technical community. Jan. 2011 – Dec. 2013

#### Presentations

#### **Invited Short Course**

- 1. Statistical Methods for Analyzing Climate Extremes, NSF workshop on Collaborative Strategies for Predicting and Measuring Uncertainty in Rare Occurrences in Civil and Environmental Systems, Golden, CO

  Nov. 2024
- 3. Statistical Methods for Analyzing Climate Extremes, Minitutorial, Society for Industrial and Applied Mathematics (SIAM) Conference on Mathematics of Planet Earth (MPE22), Pittsburgh, PA

  July 2022

#### Invited Sessions, Panels, and Roundtable Discussions

- 1. American Statistical Association (ASA) Climate and Extremes Roundtable, Boulder CO Oct. 2024
- 2. Statistics of Climate Extremes, Section on Statistics and the Environment, JSM

  Aug. 2023
- 3. Postdoctoral Panel, National Institute of Statistical Sciences (NISS) Graduate Student Network, (virtual)

  Jan. 2022

#### **Invited Talks**

Airflow recovery from thoracic and abdominal movements using Synchrosqueezing Transform and Locally Stationary Gaussian Process Regression

- Department Seminar, Department of Mathematics & Statistics, South Dakota State University, (virtual)

  Nov. 2023
- AADS AI/ML Community of Practice, Eli Lilly and Company, (virtual) Oct. 2022
- Statistics colloquium, Department of Statistics and Probability, Michigan State University, (virtual)

Jan. 2022

- Statistics Colloquium, Department of Statistics, University of Missouri, (virtual) Feb. 2021
- Biostatistics Seminar, Department of Biostatistics, Virginia Commonwealth University, (virtual)
   Jan. 2021
- Statistics Seminar, Department of Applied and Computational Mathematics and Statistics, University of Notre Dame, (virtual)

  Nov. 2020
- Statistics and Data Science Seminar, Department of Mathematics and Statistics, Auburn University, (virtual) Oct. 2020
- Taiwan National Center for Theoretical Sciences Seminar on Data Science, (virtual)
   Sep. 2020

Estimating Concurrent Climate Extremes: A Conditional Approach

- Department Colloquium, Department of Statistics, University of South Carolina, Columbia SC Oct. 2024
- Department Colloquium, University of Iowa, Department of Statistics and Actuarial Science, (virtual)
   Oct. 2024
- Seventh Celebration of Statistics and Data Science conference, Department of Statistics and Data Science, Cornell University, Ithaca, NY Sep. 2024

• Department Colloquium, Department of Statistics, University of Missouri, Columbia MO

March 2024

- IMSI workshop on Detection and Attribution of Climate Change, Chicago IL Oct. 2022
- Banff International Research Station (BIRS) UBCO Workshop on Climate Change Scenarios and Financial Risk, Kelowa, BC Canada
   July 2022
- Session on Spatio-Temporal Models for Environmental and Health Applications. The 5th International Conference on Econometrics and Statistics, (virtual)

June 2022

- Statistics Seminar, Department of Statistics, University of Nebraska-Lincoln, (virtual)

  Oct. 2021
- Session on Spatial and Spatio-Temporal Statistics and Its Applications, The 34th New England Statistics Symposium, (virtual)

  Oct. 2021
- Minisymposium on Advances and Challenges in Wind Modeling and its Applications, Society for Industrial and Applied Mathematics (SIAM) Conference on Mathematics of Planet Earth (MPE20), (virtual)

  Aug. 2020
- Session on Multivariate extremes, Workshop on Risk Analysis for Extremes in the Earth System, Berkeley, CA July 2019
- Session on CANSSI Postdoctoral Showcase, 2019 Statistical Society of Canada (SSC) Annual Meeting, Calgary, AB, Canada May 2019
- A Workshop Celebrating Michael L. Stein's 60th Birthday, Chicago, IL Apr. 2019

#### A Combined Physical-Statistical Approach for Estimating Storm Surge Risk

- Department Colloquium, Department of Statistics, Virginia Tech, Blacksburg, VA

  March 2025
- NSF Workshop on Data-driven Modeling and Prediction of Rare and Extreme Events, Chicago, IL Nov. 2024
- Quantifying Uncertainty in Natural Hazards, ENVR 2022 Workshop: Environmental and Ecological Research with Societal Impacts, Provo, UT

  October 2022.
- Atmosphere and climate Seminar, Environmental Science Division (EVS), Argonne National Laboratory, Lemont, IL
   Sep. 2022
- Minisymposium on the Science of Hazards-Part I of II, Society for Industrial and Applied Mathematics (SIAM) Conference on Uncertainty Quantification (UQ22), Atlanta, GA
   Apr. 2022
- Session on Modern Topics on Mining Massive Spatial-temporal Data,
   2021 INFORMS Annual Meeting
   Oct 2021
- Session on Advances in Spatial and Spatio-temporal Modeling and its Applications,
   2021 ICSA Applied Statistics Symposium
   Sep. 2021
- Section on Frontiers of Spatial and Temporal data modeling, The 4th International Conference on Econometrics and Statistics, (virtual)

  June 2021
- SAMSI MUMS Transition Workshop, Chapel Hill, NC May 2019
- Environmental Science Division (EVS), Argonne National Laboratory, Lemont, IL May 2019
- Statistics Seminar, Department of Mathematical Sciences, University of Cincinnati, Cincinnati, OH

  Apr. 2019
- Minisymposia on Statistics of Extreme Weather and Climate Events, SIAM MPE18, Philadelphia, PA Sept. 2018
- SAMSI CLIM Transition Workshop, Durham, NC May 2018

Network Analysis of Gulf Coast Extreme Precipitation

- Session on Climate Networks and Extremes, Section on Risk Analysis, Joint Statistical Meetings (JSM), Denver, CO (presented by Snigdhansu Chatterjee)
   July 2019
- SAMSI Climate Extremes Workshop, Durham, NC

May 2018

Estimating Precipitation Extremes using Log-Histospline

- Statistics Colloquium, Department of Statistics, University of Georgia, Athens, GA Aug. 2019
- Statistics Seminar, Department of Mathematics and Statistics, University of Victoria, Victoria, BC, Canada
   Nov. 2018
- 28th The International Environmetrics Society (TIES) Conference, Guanajuato, Mexico July 2018
- Math Colloquium, Department of Mathematics and Statistics, University of North Carolina at Greensboro, Greensboro, NC Nov. 2017
- Environmental seminar, Department of Statistics, North Carolina State University, Raleigh, NC Sep. 2017
- International Chinese Statistical Association Applied (ICSA) Statistics Symposium, Chicago, IL
   June 2017
- Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Milwaukee, WI
   Mar. 2017
- Mathematics and Computer Science Division (MCS), Argonne National Laboratory, Lemont, IL
   Mar. 2017

Estimating changes in temperature extremes from millennial scale climate simulations using generalized extreme value (GEV) distributions

- Pacific Climate Seminar Series, University of Victoria, Victoria, BC, Canada Sept. 2018
- STATMOS Workshop on Climate and Weather Extremes, State College, PA Oct. 2016
- Atmospheric sciences colloquia, Department of Atmospheric Sciences, University of Illinois at Urbana–Champaign, Champaign, IL Oct. 2016
- Workshop on Uncertainty and Causality Assessment in Modeling Extreme and Rare Events, National Center for Atmospheric Research, Boulder, CO Apr. 2016
- Data Science Seminar, Mathematics Department, College of William and Mary, Williamsburg, VA
   Mar. 2016
- IMAGe Brown Bag Seminar, National Center for Atmospheric Research (NCAR), Boulder, CO Apr. 2015
- Environmental Science Division (EVS), Argonne National Laboratory, Lemont, IL Mar. 2015

Spatial Extremes - Current Approaches and Future Outlook

• National Climatic Data Center (NCDC), Asheville, NC

 $Nov.\ 2012$ 

## Topic contributed Talks

Evaluating Value at Risk and Expected Shortfall Estimation via Point Process Approaches

• Topic contributed session on Recent Advances in Time Series Methodology, Business and Economic Statistics Section, JSM, Portland, OR

Aug. 2024

Estimating Concurrent Climate Extremes: A Conditional Approach

 Topic contributed session on Volume, Velocity, and Variety in Environmental Statistics: New Perspectives and Methods, Section on Statistics and the Environment, JSM, (virtual)
 Aug. 2021 • Oral session on Correlated Climate Extremes: Drivers, Mechanisms, and Projections I, American Geophysical Union (AGU) Fall Meeting, (virtual) Dec. 2020

Estimating Extreme Storm Surge Levels: A Statistical Perspective

- Topic contributed session Statistical models for climate change adaptation, Section on Statistics and the Environment, JSM, Toronto, ON, Canada Aug. 2023
- Topic contributed session On Surrogate Modeling of Emerging Issues in Physical and Engineering Simulators, Section on Physical and Engineering Sciences, JSM, DC
   Aug. 2022
- Advances in Extreme Value Analysis and Application to Natural Hazards (EVAN)
   Conferences, Orlando, FL
   May 2022
- Topic contributed session on Uncertainty Quantification for Environmental Applications, Section on Statistics and the Environment, JSM, (virtual) Aug. 2020
- Topic contributed session on The Climate Extremes Program at SAMSI, Section on Statistics and the Environment, JSM, Vancouver, BC, Canada Aug. 2018

Estimating Precipitation Extremes using Log-Histospline

- 14th International Meeting on Statistical Climatology (IMSC), Toulouse, France June 2019
- Oral session on Utilizing Long-Term Precipitation Data Records for Understanding Climate Extremes I, American Geophysical Union (AGU) Fall Meeting, New Orleans, LA
   Dec. 2017

Estimating changes in temperature extremes from millennial scale climate simulations using generalized extreme value (GEV) distributions

 Oral session on Characterizing and Interpreting Changes in Temperature and Precipitation Extremes, AGU Fall meeting, San Francisco, CA
 Dec. 2015

## Contributed Talks

A Combined Physical-Statistical Approach for Estimating Storm Surge Risk

 Session on The Climate Program at SAMSI, Section on Statistics and the Environment, JSM, Denver, CO (cancelled)
 Aug. 2019

Estimating Precipitation Extremes using Log-Histospline

- Session on Environmental Extremes, Section on Statistics and the Environment, JSM, Baltimore, MD
   Aug. 2017
- Session on Extreme Value Analysis and Prediction, Section on Statistics and the Environment, Conference on Probability and Statistics in the Atmospheric Sciences, Baltimore, MD
   July 2017

 $Spatial\ Basis\ Function\ Approach\ to\ Accommodate\ Teleconnection\ Patterns\ in\ Climate\ Data$ 

- Conference on Applied Statistics in Agriculture, Manhattan, KS Apr. 2017
- Session on Nonstationary Models for Spatial Data, Section on Statistics and the Environment, JSM, Chicago, IL

  Aug. 2016

Estimating changes in temperature extremes from millennial scale climate simulations using generalized extreme value (GEV) distributions

• 13th International Meeting on Statistical Climatology meeting, Canmore, Alberta, Canada June 2016

- Session on Analysis of Extreme Values, Section on Statistics and the Environment, JSM, Seattle, WA
   Aug. 2015
- Session on Modeling extreme events: precipitation and floods, The 9th international conference on Extreme Value Analysis (EVA), Ann Arbor, MI June 2015

Dependence modeling of spatio-temporal weather extreme events

- Session on Spatial-temporal Data, The Ninth International Chinese Statistical Association International Conference: Challenges of Statistical Methods for Interdisciplinary Research and Big Data, Hong Kong
   Dec. 2013
- Session on Statistical Methods and Inference for Extreme Environmental Events, Section on Statistics and the Environment, JSM, Montreal, QC Aug. 2013

## Clemson University Talks

- 1. Modeling high frequency oscillating biomedical signals using synchrosqueezing transform and locally stationary Gaussian processe, AI Symposium Apr. 2023
- 2. Some Research Topics in Environmental Statistics and Biomedical Signal Analysis. First-Year Graduate Student seminar, School of Mathematical and Statistical Sciences

  Feb. 2023
- 3. Some (Useful) Statistical Tools for Environmental Research, EEES Seminar Jan. 2023
- 4. Extreme value statistics and the study of climate change, 2022 Research Symposium

  May 2022
- 5. Estimating Concurrent Climate Extremes: A Conditional Approach, 2021 Research Symposium, May 2021
- 6. Some Research Topics in Environmental Statistics and Biomedical Signal Analysis. First-Year Graduate Student seminar,
  School of Mathematical and Statistical Sciences
  Feb. 2021
- 7. Airflow recovery from thoracic and abdominal movements using Synchrosqueezing
  Transform and Locally Stationary Gaussian Process Regression.
  Clemson Statistics Seminar
  Nov. 2020
- 8. Airflow recovery from thoracic and abdominal movements using Synchrosqueezing
  Transform and Locally Stationary Gaussian Process Regression.
  Clemson College of Science Rising Star Symposium
  Sept. 2020
- 9. Some Research Topics in Environmental Statistics. First-Year Graduate Student seminar, School of Mathematical and Statistical Sciences

  Jan. 2020
- 10. Extreme Value Analysis for Climate Research. Math Club Seminar, School of Mathematical and Statistical Sciences Jan. 2020
- 11. Panel Discussion on Preparing for a CAREER in Math & Stat. Graduate Student Seminar (GSS), School of Mathematical and Statistical Sciences Oct. 2019

#### Purdue University Talks

Job/Summer Internship Panel. Graduate Student Organization seminar, Department of Statistics

Apr. 2017

An Overview of Spatial Extremes. Mathematical Statistics Seminar, Department of Statistics

Oct. 2015

An Introduction to Extreme Value Analysis. Graduate Student Organization seminar, Department of Statistics

Mar. 2014

#### Contributed Posters

Airflow recovery from thoracic and abdominal movements using Synchrosqueezing Transform and Locally Stationary Gaussian Process Regression

• IMSI Workshop on Expressing and Exploiting Structure in Modeling, Theory, and Computation with Gaussian Processes, Chicago, IL Aug. 2022

Modeling Compound Wind and Precipitation Extremes using a Large Climate Model Ensemble

- Advances in Extreme Value Analysis and Application to Natural Hazards (EVAN)
   Conferences, Orlando, FL
   May 2022
- Session on Extreme value analysis for climate applications, 14th International Meeting on Statistical Climatology (IMSC), Toulouse, France June 2019

Estimating Extreme Storm Surge Levels: A Statistical Perspective

- Coupling Uncertain Geophysical Hazards Workshop, Raleigh, NC March 2019
- SAMSI MUMS Opening Workshop, Durham, NC Aug. 2018

Estimating Precipitation Extremes using Log-Histospline

- IMS New Researchers Meeting, Burnaby, BC, Canada July 2018
- IMA workshop on Forecasting from Complexity, Minneapolis, MN Apr. 2018
- Triangle Machine Learning Day (TMLD 2018), Durham, NC Apr. 2018
- SAMSI CLIM Program Opening Workshop, Durham, NC Aug. 2017
- Statistical Perspectives of Uncertainty Quantification, Atlanta, GA May 2017

Estimating changes in temperature extremes from millennial scale climate simulations using generalized extreme value (GEV) distributions

- Workshop on Spatial Statistics, College Station, TX Jan. 2015
- 2014 Graybill/ENVR Conference: Modern Statistical Methods for Ecology, Fort Collins, CO Sept. 2014
- STATMOS Annual Meeting, Chicago, IL Sept. 2014

Dependence modeling of spatio-temporal weather extreme events

- Environmental and Longitudinal Data Analysis, Eastern North American Region (ENAR) spring meeting, Baltimore, MD Mar. 2014
- Frontiers of Statistics and Forecasting in Celebration of the 80th Birthday of George C. Tiao, Taipei, Taiwan
   Dec. 2013
- SAMSI LDHD Opening Workshop, Research Triangle Park, NC Sept. 2013

#### University Service

## Department Committees

- Data Science and Analytic Online Program Curriculum Committee

Feb. 2025 -present

- Statistics Tenure-Track Search Chair Aug. 2024 - Oct. 2024

- Statistics Tenure-Track Search Chair Oct. 2023 - Mar. 2024

- Data Science Lecturer Search Member Oct. 2023 - Mar. 2024

- Research Committee Member Aug. 2023 - present

 Clemson University Graduate School Graduate Academic Program Self Review (GAPS) Member
 June 2023 - present

- School Teaching Award Member

2023 and 2024

- Interim School Director Search Member

Summer 2023

- School of Mathematical and Statistical Sciences Council Member

Aug. 2022 - May. 2023

- School Postdoc Search Member

2022 and 2023

- Data Science Undergraduate Curriculum Member

Sep. 2022 - present

- School Director Two-Year Review Member

Dec. 2021

## Professional Service

#### **Editorial Board**

Associate Editor: Weather and Climate Extremes
 Associate Editor: Data Science in Science
 Jan. 2023 - present

- Review Editor: Climate Detection and Attribution, Frontiers in Climate

Dec. 2023 - present

# American Statistical Association (ASA) Program Officer

- ASA Advisory Committee on Climate Change Policy:

Member (2023) Vice Chair (2024) Chair (2025)

- ASA Section on Statistics and the Environment (ENVR): Publications Chair

2023-2024

#### **Proposal Panel:**

- 2025: NSF's Division of Earth Sciences
- 2024: NSF's Division of Earth Sciences
- 2024: NSF's Division of Mathematical Sciences

## Proposal Referee:

- 2024: NSF's Climate and Large-scale Dynamics
- 2024: NSF's Hydrologic Sciences Program
- 2023: NSF's Climate and Large-scale Dynamics Program
- 2021: NSF's Climate and Large-scale Dynamics Program
- 2019: NSF's Climate and Large-scale Dynamics Program

## Journal Referee:

2017: Journal of Geophysical Research: Atmosphere, Advances in Statistical Climatology, Meteorology and Oceanography, Stat, Journal of the Korean Statistical Society, Computational Statistics & Data Analysis, Environmetrics

2018: Annals of Applied Statistics (2), Environmetrics, Computational Statistics, Journal of Agricultural, Biological, and Environmental Statistics, Journal of Hydrologic Engineering

2019: Environmetrics (2), Technometrics (2), Journal of Statistical Distributions and Applications, Science, Environmental and Ecological Statistics

2020: Climatic Change, Statistica Sinica, Biometrics, Brazilian Journal of Probability and Statistics, Technometrics (2), Advances in Statistical Climatology, Meteorology and Oceanography, Computational Statistics & Data Analysis (2), Scientific Reports, Atmosphere

- 2021: Journal of Climate (3), Technometrics, Nature, Environmental Modelling and Software, Environmental and Ecological Statistics, Geoscientific Model Development, Journal of Agronomy and Crop Science, Extremes, Annals of Applied Statistics, Environmetrics, Journal of Agricultural, Biological, and Environmental Statistics, Journal of Computational and Graphical Statistics, Environmetrics (2)
- 2022: IISE Transactions, Environmental and Ecological Statistics, Environmetrics, Journal of Climate, AOAS, Technometrics, Atmosphere-Ocean
- 2023: Ocean Dynamics, Statistics and Computing, Technometrics (2), Monthly Weather Review, Remote Sensing, Statistics in Medicine, Journal of Agricultural, Biological, and Environmental Statistics, Journal of Computational and Graphical Statistics
- 2024: Environmental Data Science, Journal of Computational and Graphical Statistics, Stochastic Environmental Research and Risk Assessment, Statistical Analysis and Data Mining, Environmetrics (2), Weather and Climate Extremes (3), Annals of Applied Statistics
- 2025: Annals of Applied Statistics (2), Journal of the American Statistical Association, Journal of Climate (2)

## Session Organizer:

 Collaborative Strategies for Predicting and Measuring Uncertainty Associated with Weather and Climate Extremes, Joint Statistical Meetings, Nashville, TN

Aug. 2025

- Panel on Communication in Statistics and Data Science, Joint Statistical Meetings, Nashville, TN
   Aug. 2025
- Panel on From Data to Climate Actions, Joint Statistical Meetings, Portland, OR Aug. 2024
- Modern Developments in Space-Time Modeling, 7th International Conference on Econometrics and Statistics, Beijing, China
   July 2024
- Statistical Deep Learning for Environmental Research, Joint Statistical Meetings, Toronto, Canada
   Aug. 2023
- The IMSI Confronting Global Climate Change Program, Joint Statistical Meetings, Toronto, Canada
   Aug. 2023
- Topic Contributed Panel on Future Directions of Climate Statistics, Section on Statistics and the Environment, Joint Statistical Meetings, DC
   Aug. 2022
- Modern statistical methods for environmental data analysis, The 5th International Conference on Econometrics and Statistics, (virtual)
   June 2022
- Minisymposium on The Science of Hazards Part I of II, 2022 SIAM Conference on Uncertainty Quantification, Atlanta, GA
   Apr. 2022
- Modern Topics on Mining Massive Spatial-temporal Data, 2021 INFORMS Annual Meeting
   Oct 2021
- Advances in Statistical Climatology, Joint Statistical Meetings, Section on Statistics and the Environment, Seattle, WA
   Aug. 2021
- Minisymposium on Advances and Challenges in Wind Modeling and its Applications, SIAM MPE20, (virtual)
   Aug. 2020
- Uncertainty Quantification for Environmental Applications, Section on Statistics and the Environment, Joint Statistical Meetings, (virtual)
   Aug. 2020
- Recent developments in climate/environmental statistics, The 4th International Conference on Econometrics and Statistics, Seoul, South Korea (Postponed)

- Minisymposium on the Science of Hazards: Tsunami and Storm Surges, SIAM Conference on Uncertainty Quantification, München, Germany (Postponed)
- The Climate Program at SAMSI, Section on Statistics and the Environment, Joint Statistical Meetings, Denver, CO
   July 2019
- Minisymposium on Statistics of Extreme Weather and Climate Events, SIAM
   Conference on Mathematics of Planet Earth, Philadelphia, PA
   Sept. 2018
- The Climate Extremes Program at SAMSI, Section on Statistics and the Environment,
   Joint Statistical Meetings, Vancouver, BC, Canada
   Aug. 2018

#### **Session Chair:**

- Day 2 invited talk, IMSI Workshop on UQ and Trustworthy AI Algorithms for Complex Systems and Social Good, Chicago, IL
   Mar. 2025
- Panel session on "UQ for a Sustainable Future," IMSI Workshop on UQ and Trustworthy AI Algorithms for Complex Systems and Social Good, Chicago, IL Mar. 2025
- NSF workshop on Collaborative Strategies for Predicting and Measuring Uncertainty in Rare Occurrences in Civil and Environmental Systems, Golden, CO Nov. 2024
- 2024 ENVR Workshop: Spatial Data Science for the Environment, Boulder, CO  $\,$  Oct. 2024
- Statistical Innovations in Climate Research: Bridging Disciplines for Earth System Understanding, Joint Statistical Meetings, Portland, OR
   Aug. 2024
- Extreme value analysis methods and theory for climate applications Part II, 15th
   International Meeting on Statistical Climatology, Toulouse, France
   June 2024
- Environmental and Climate Statistics, The Southern Regional Council on Statistics
   59th Summer Research Conference, Clemson SC
   June 2024
- Georgia Statistics Day 2023, Atlanta, GA Oct. 2023
- The IMSI Confronting Global Climate Change Program, Joint Statistical Meetings, Toronto, Canada
   Aug. 2023
- Topic Contributed Panel on Future Directions of Climate Statistics, Section on Statistics and the Environment, Joint Statistical Meetings, DC
   Aug. 2022
- Spatial Statistics and UQ: Foundations for Innovation in Environmental Science,
   Invited Session, Section on Statistics and the Environment, Joint Statistical Meetings,
   DC

  Aug. 2022
- Modern statistical methods for environmental data analysis, The 5th International Conference on Econometrics and Statistics, (virtual)
   June 2022
- Minisymposium on The Science of Hazards Part I of II, 2022 SIAM Conference on Uncertainty Quantification, Atlanta, GA
   Apr. 2022
- Modern Topics on Mining Massive Spatial-temporal Data, 2021 INFORMS Annual Meeting (virtual)
   Oct 2021
- Uncertainty Quantification Across the Boundaries, Topic Contributed Session, JSM,
   Uncertainty Quantification in Complex Systems Interest Group
   Aug. 2021
- Recent developments in climate/environmental statistics, The 4th International Conference on Econometrics and Statistics, (virtual)
   June 2021
- Minisymposium on Advances and Challenges in Wind Modeling and its Applications, SIAM MPE20,
   Aug. 2020
- Invited Session II, Georgia Statistics Day 2019, Atlanta, GA Oct. 2019
- Methods for High-Dimensional and Large Data I, 2019 Statistical Society of Canada (SSC) Annual Meeting, Calgary, AB, Canada
   May 2019
- Statistical Methods of Air Quality and Exposure, Section on Statistics and the Environment, Joint Statistical Meetings, Vancouver, BC, Canada Aug. 2018

- Environmental Applications of Bayesian Methods, Section on Bayesian Statistical Science, Joint Statistical Meetings, Baltimore, MD
   July. 2017
- Environmental Extremes, Section on Statistics and the Environment, Joint Statistical Meetings, Chicago, IL
   Aug. 2016

#### Conference Organizing Committee:

- 2024 ENVR Workshop: Spatial Data Science for the Environment, Boulder, CO
   Oct. 2024
- PIMS-BIRS-UBCO Summer School on Forecasting and Mathematical Modeling for Renewable Energy, Kelowna, BC, Canada
   July 2024
- 2024 Summer Research Conference, Southern Regional Council on Statistics Clemson, SC
   June 2024
- 2023 Interdisciplinary Workshop on Weather and Climate Extremes May 2023

## Conference and Workshop Program Committee:

- $-\,$  2025 Interdisciplinary Workshop on Weather and Climate Extremes, Columbia, MO June 2025
- 15th International Meeting on Statistical Climatology, Toulouse, France June 2024
- 2024 Summer Research Conference, Southern Regional Council on Statistics Clemson, SC
   June 2024
- $-\,$  2023 Interdisciplinary Workshop on Weather and Climate Extremes Clemson, SC
- The 10th International Workshop on Climate Informatics Sept. 2020
- The 9th International Workshop on Climate Informatics Oct. 2019

#### Seminar Organizer:

- Statistics Seminars, School of Mathematical and Statistical Sciences,
   Clemson University
   Aug. 2021-present
- Community Climate Science Seminars (CCSS), University of Victoria

Oct. 2018 to Apr. 2019

May 2023

- Spatial statistics and Statistical Climatology Seminars, Department of Statistics,
   Purdue University
   Aug. 2013 to May 2017
- Graduate Student Organization (GSO) Seminar: Department of Statistics, Purdue University
   Jan. 2014 to May 2015

#### SAMSI Administrative Service:

- Storm Surge Risk Working Group, Statistical and Applied Mathematical Sciences MUMS program
   Aug. 2018 to Present
- Extremes and Risk and Coastal Hazards Working Groups administrator, CLIM program,
   Aug. 2017–Jun. 2018

#### Student Presentation Competition Judger:

- 2024 Georgia Statistics Day, Atlanta, GA	Oct. 2024
– 2023 Georgia Statistics Day, Atlanta, GA	Oct. 2023
- 35th New England Statistics Symposium	May 2022
- 2021 SC-ASA Palmetto Symposium	Apr. 2021

# TEACHING EXPERIENCE

School of Mathematical and Statistical Sciences, Clemson University

• DSA 9100: Special Topics in Time Series Analysis

Spring 2025

• MATH 4070/6070 Regression and Time-Series Analysis

Fall 2024

• STAT 8110 Special Problems in Experimental Statistics

Fall 2021, Spring 2024

• MATH 8090: Time Series Analysis, Forecasting and Control

21 Fall, 23 Fall

• DSA 8070: Multivariate Analysis

21 Fall, 22 Fall, 23 Fall, 24 Fall

- MATH 9700: Some Useful Tools for Environmental Data Analysis 21 Spring, 23 Spring
- DSA 8020: Statistical Method II 21 Spring, 22 Spring, 23 Spring, 24 Spring, 25 Spring
- STAT 8010: Statistical Method I

19 Fall, 20 Spring, 20 Fall, 23 Summer

• STAT 8020 Statistical Method II

19 Fall, 20 Spring

• STAT 8050: Design and Analysis of Experiments

20 Spring

- Guest Lecturer: MATH 4500: Introduction to Mathematical Models Feb. 28, 2023
- Guest Lecturer: MATH 9810: Computer Experiments and Uncertainty Quantification
  Dec. 4, 2019

Department of Mathematics and Statistics, University of Victoria

Guest Lecturer: STAT 457/554 Time Series Analysis

Nov. 7, 2018

- Gave an introductory lecture on extreme value analysis

SAMSI Education and Outreach Programs and Workshops

#### Undergraduate Modelling Workshop

May 2018

- Designed and led a week-long project on "Estimating extreme US southeast rainfall"
- Mentored a team of 6 undergrad students with Statistics, Mathematics, and Computer Sciences background.

## Undergraduate workshop on climate extremes

Oct. 2017

- Gave a tutorial on extreme value analysis for climate research
- Presented a demos of extreme value analysis using R

Department of Statistics, Purdue University

**Instructor**: STAT 225 Introduction to Probability Models

Aug. 2013 – May 2014

- Conducted lectures and prepared course slides

# Teaching Assistant

May 2012 – May 2016

- STAT 598 G Introduction to Computational Statistics, Fall 2012.
- STAT 598 HZ Modern Applied Statistics, Spring 2015.
- STAT 526 Advanced Statistical Methodology, Fall 2012.
- STAT 525 Intermediate Statistical Methodology, Fall 2015.
- STAT 529 K Bayesian Applied Decision Theory, Summer 2012, Spring 2013, Spring 2015, Spring 2016.
- STAT 511 Statistical Methods, Spring 2013.

School of Industrial Engineering, Purdue University

**Teaching Assistant:** IE 535 Linear Programming Aug. 2010 – Dec. 2010

Department of Statistics, University of Akron

**Teaching Assistant:** STAT 250 Statistics for Everyday Life Aug. 2008 – Dec. 2009

Professional Membership Feb. 2017 - Apr. 2022

Oct. 2018 - Sep. 2019

Society for Industrial and Applied Mathematics (SIAM)

Statistical Society of Canada (SSC)