ELIANA CHRISTOU

# Eliana Christou

08/07/2023

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# PERSONAL DATA

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Last Updated August 2023

# EDUCATION

Ph.D. in Statistics 2016

 $Pennsylvania\ State\ University$ 

Pennsylvania, USA

- Thesis: "A Non-Iterative Method for Fitting the Single Index Quantile Regression Model with Uncensored and Censored Data"
- Advisor: Professor Michael G. Akritas

M.Sc in Statistics 2014

Pennsylvania State University

Pennsylvania, USA

- Thesis: "Asymptotic Behavior of Nadaraya-Watson and Local Linear estimators associated with the Single Index Model"
- Advisor: Professor Michael G. Akritas

#### **B.Sc** in Mathematics and Statistics

2011

University of Cyprus

Nicosia, Cyprus

#### B.A. in Piano and Harmony

2011

National Conservatory of Cyprus

Nicosia, Cyprus

#### Professional Experience

#### Associate Professor

07/2023 - Present

University of North Carolina at Charlotte

Charlotte, NC

# Assistant Professor

08/2016 - 06/2023

University of North Carolina at Charlotte

 $Charlotte,\ NC$ 

#### Teaching Assistant

08/2011 - 05/2016

Pennsylvania State University

State College, PA

#### AWARDS AND HONORS

- 1. Junior Faculty Development Award, College of Liberal Arts & Sciences (CLAS), **University of North Carolina at Charlotte**, Spring 2021
- 2. Best Paper for Construction Division: 'Tenure: Perceptions of requirements and Impediments for Civil Engineering & Construction Disciplines', American Society for Engineering Education, 126th Annual Conference and Exposition, Tampa, FL, June 15-19, 2019

- 3. Eleneio Doctoral Thesis Award in Statistics, Greek Statistical Institute, 2015-2016
- 4. Avignon ISNPS Young Researchers Award, International Society for Nonparametric Statistics (ISNPS), 2016
- 5. Harold F. Martin Graduate Assistant Outstanding Teaching Award, **Pennsylvania State** University, 2015-2016
- 6. Harkness Teaching Award, Pennsylvania State University, 2014-2015

#### **PUBLICATIONS**

(\* denotes student)

# Peer-reviewed Journal Papers Published

- 1. **Christou, E.** (2023), Dimension reduction techniques for conditional expecties, *Statistics* 57(4), 960–985.
- 2. **Christou, E.**, and Grabchak, M. (2022), Risk Estimation With Composite Quantile Regression, *Econometrics and Statistics*, (Invited Contribution) https://doi.org/10.1016/j.ecosta.2022.04.004
- 3. Christou, E., and Grabchak, M. (2022), Estimation of Expected Shortfall using Quantile Regression: A Comparison Study, *Computational Economics* 60, 725–753.
- 4. **Christou, E.** (2022), Sufficient Dimension Reduction for Conditional Quantiles with Alternative Types of data, *Journal of Statistical Computation and Simulation* 92(2), 300–317.
- 5. Christou, E. (2021), Transformed Central Quantile Subspace, Statistics 55(2), 350–366.
- 6. **Christou, E.**, Settle, A.\*, and Artemiou, A. (2021), Nonlinear dimension reduction for conditional quantiles, *Advances in Data Analysis and Classification* 15, 937–956.
- 7. Grabchak, M., and **Christou, E.** (2021), A Note on Calculating Expected Shortfall for Discrete Time Stochastic Volatility Models, *Financial Innovation* 7(43).
- 8. Christou, E. (2020), Central quantile subspace, Statistics and Computing 30, 677–695.
- 9. **Christou, E.** (2020), Robust Dimension Reduction using Sliced Inverse Median Regression, *Statistical Papers* 61, 1799–1818.
- 10. Khouja, M., **Christou, E.**, and Stylianou, A. (2020), A Heuristic Approach to In-Season Capacity Allocation in a Multi-product Newsvendor Model, *Omega* 95, 102252.
- 11. Christou, E., and Akritas, M.G. (2019), Single index quantile regression for censored data, Statistical Methods & Applications 28(4), 655-678.
- 12. **Christou, E.**, and Grabchak, M. (2019), Estimation of Value-at-Risk Using Single Index Quantile Regression, *Journal of Applied Statistics* 46(13), 2418–2433.
- 13. **Christou, E.**, and Akritas, M.G. (2018), Variable Selection in Single Index Quantile Regression for Heteroscedastic Data, *Communication in Statistics Theory and Methods*, 47(24), 6019–6033.

14. **Christou, E.**, and Akritas, M.G. (2016), Single Index Quantile Regression for Heteroscedastic Data, *Journal of Multivariate Analysis* 150, 169–182.

# Peer-reviewed Conference Proceedings

- 1. Al-Shaer, R.\*, Spring, J., and **Christou, E.** (2020), Learning the Associations of MITRE ATT&CK Adversarial Techniques, *IEEE Conference on Communication and Network Security* (CNS), Virtual Conference, June 29 July 1, 2020.
- 2. Miskioglu, E., Tymvios, N., **Christou, E.**, and Wheatley, B. (2020), Pre and Post Tenure: Perceptions of Requirements and Impediments for Chemical Engineering Faculty, 127th ASEE Annual Conference, Montréal, Canada, June 21-24, 2020.
- 3. Tymvios, N., Miskioglu, E., **Christou, E.**, and Wheatley, B. (2020), Pre and Post Tenure: Perceptions of Requirements and Impediments for Faculty in Civil Engineering, Architectural Engineering, Construction Disciplines, 127th ASEE Annual Conference, Montréal, Canada, June 21-24, 2020.
- 4. Wheatley, B., Miskioglu, E., Christou, E., and Tymvios, N. (2020), Pre and Post Tenure: Perceptions of Requirements and Impediments for Mechanical Engineering and Mechanical Engineering Technology Faculty, 127th ASEE Annual Conference, Montréal, Canada, June 21-24, 2020.
- Tymvios, N., and Christou, E. (2019), Tenure: Perceptions of Requirements and Impediments for Civil Engineering & Construction Disciplines, 126th ASEE Annual Conference and Exposition, Tampa, FL, June 15-19, 2019.

# Manuscripts under review

- 1. **Christou, E.**, Solea, E., Wang, S., and Song, J. (2023+), Sufficient Dimension Reduction for Conditional Quantiles for Functional Data (under review).
- 2. Solea, E., **Christou, E.**, and Song, J. (2023+), Robust Inverse Regression for Multivariate Elliptical Functional Data (under review).
- 3. Kimberly, M.\*, and **Christou**, **E.** (2023+), March Madness Prediction using Quantile Regression (under review).

# Manuscripts in preparation

- 1. Sufficient Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors (with Shanshan Wang and Drs. Eftychia Solea and Jun Song, in progress)
- 2. Estimation of the conditional Value-at-Risk using Single-Index Quantile Regression (with Dr. Michael Grabchak, in progress)
- 3. Variable Selection in Central Quantile Subspace (with Dr. Andreas Artemiou, in progress)

# Software

1. Christou, E. (2020), quantum Dimension Reduction Techniques for Conditional Quantiles. R package, Version 1.2.2, https://cran.r-project.org/package=quantum

# Research Grants

- External
  - 1. Single PI: LEAPS-MPS: Functional Data Analysis for Conditional Quantiles with Applications in Medical Studies, Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS), National Science Foundation (NSF), 2022-2024, \$213,462. Award # 2213140 https://www.nsf.gov/awardsearch/showAward?AWD\_ID=2213140
- Internal
  - 1. Single PI: Quantifying Risk using Expectile Regression, Faculty Research Grant, University of North Carolina at Charlotte, 2022-2023, \$4,200
  - 2. Single PI: Robust Dimension Reduction using Sliced Inverse Median Regression, Faculty Research Grant, University of North Carolina at Charlotte, 2017-2018, \$3,000

#### **Travel Grants**

- External
  - 1. Central Quantile Subspace, Young Investigators Mini Travel Grant Award, International Symposium on Nonparametric Statistics (ISNPS), June 2018, \$500
- Internal
  - 1. Nonlinear dimension reduction for conditional quantiles, Faculty International Travel Grant Award, University of North Carolina at Charlotte, 2019-2020, \$300
  - 2. Central Quantile Subspace, Faculty International Travel Grant Award, University of North Carolina at Charlotte, 2017-2018, \$300

#### Presentations

# **Invited Conference Talks**

- Sufficient Dimension Reduction for Conditional Quantiles for Functional Data, 16th
  International Conference of the ERCIM WG on Computational and Methodological Statistics
  (CMStatistics 2023), HTW Berlin, University of Applied Sciences, Berlin, Germany, December
  2023
- 2. Central Quantile Subspace and Its Extensions to Functional Data, 6th International Conference on Econometrics and Statistics (EcoSta 2023), Hybrid Conference, Waseda University, Tokyo, Japan, August 2023
- 3. Central Quantile Subspace and Its Extensions, 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022), King's College London, London, UK, December 2022

4. Nonlinear Dimension Reduction for Conditional Quantiles, 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), King's College London, London, UK, December 2021

- 5. Nonlinear Dimension Reduction for Conditional Quantiles, 2020 ISNPS Conference, Paphos, Cyprus, June 2020 (cancelled due to COVID-19)
- Central Quantile Subspace, 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019), University of London, London, UK, December 2019
- 7. Central Quantile Subspace, 2018 AISC Conference, University of North Carolina at Greensboro, Greensboro, NC, USA, October 2018
- 8. Central Quantile Subspace, 50th Statistics Department Anniversary Conference, Pennsylvania State University, State College, PA, USA, May 2018
- 9. Central Quantile Subspace, 2017 ICSA Conference, Chicago, IL, USA, June 2017
- 10. Variable Selection in Single Index Quantile Regression for Heteroscedastic Data, 30th Greek Statistical Conference, organized by the Greek Statistical Institute, Cyprus, April 2017 (part of the Eleneio Doctoral Thesis Award unable to attend)
- 11. Variable Selection in Single Index Quantile Regression for Heteroscedastic Data, 2016 ISNPS Conference, Avignon, France, June 2016

# **Invited Colloquium Talks**

- 1. Central Quantile Subspace and Its Applications, Statistics seminar, Sapienza Università Di Roma, Italy, March 2023
- 2. Central Quantile Subspace and Its Extensions, Statistics seminar, Miami University, Oxford, OH, USA, March 2022
- 3. Central Quantile Subspace, Statistics seminar, University of Kentucky, Lexington, KY, USA, November 2020
- 4. Central Quantile Subspace, Statistics seminar, Cardiff University, Cardiff, Wales, UK, December 2019

# Conference Session Organizer/Chair

- 1. Organizer and Chair of an invited session, Recent developments on dimension reduction and functional data analysis, 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023), HTW Berlin, University of Applied Sciences, Berlin, Germany, December 2023
- 2. Organizer and Chair of an invited session, Recent developments in functional data analysis, 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022), King's College London, London, UK, December 2022

3. Organizer and Chair of an invited session, Bridging the gap between theory and applications: Advances in dimension reduction techniques, 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), King's College London, London, UK, December 2021

- 4. Organizer and Chair of an invited session, Recent Advances in Dimension Reduction and Graphical Models, October Math Symposium 2021, University of North Carolina at Charlotte, Charlotte, NC, USA, October 2021
- 5. Co-Organizer and Chair of an invited session, Sufficient dimension reduction and graphical models, October Math Symposium 2020, University of North Carolina at Charlotte, Charlotte, NC, USA, October 2020
- 6. Organizer and Chair of an invited session, Recent advances in dimension reduction, 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019), University of London, London, UK, December 2019
- 7. Co-Organizer of an invited session, New development on survival analysis with application to Biostatistics, 2018 AISC conference, University of North Carolina at Greensboro, Greensboro, NC, USA, October 2018
- 8. Chair of an invited session, Recent advances in quantile regression, 2017 ICSA Conference, Chicago, IL, USA, June 2017

#### Other Presentations and Conferences

- 1. **Contributed Speaker**, *Central Quantile Subspace*, Statistics seminar, University of North Carolina at Charlotte, Charlotte, NC, USA, February 2020
- 2. Contributed Speaker, Central Quantile Subspace, 2018 ISNPS Conference, Salerno, Italy, June 2018
- 3. Contributed Speaker, Robust Dimension Reduction using Sliced Inverse Median Regression, Statistics seminar, University of North Carolina at Charlotte, Charlotte, NC, USA, January 2017
- 4. Contributed Speaker, Variable Selection in Single Index Quantile Regression for Heteroscedastic Data, Stochastic Modeling and Computing (SMAC) seminar, Pennsylvania State University, State College, PA, USA, November 2015
- 5. Contributed Speaker, Single Index Quantile Regression for Heteroscedastic Data, 2015 JSM Conference, Seattle, WA, USA, August 2015
- 6. **Poster**, Single Index Quantile Regression for Heteroscedastic Data, 2015 Rao Prize Conference, Pennsylvania State University, State College, PA, USA, May 2015
- 7. **Poster**, Single Index Quantile Regression for Heteroscedastic Data, 30th Annual Graduate Exhibition, Pennsylvania State University, State College, PA, USA, March 2015

# Courses Taught

# University of North Carolina at Charlotte

- Graduate level courses
  - STAT 4123/5123: Applied Statistics I (Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022)
  - STAT 4124/5124: Applied Statistics II (Spring 2018)
- Undergraduate level courses
  - STAT 3110: Applied Regression (Spring 2019, Spring 2020)
  - MATH/STAT 3122: Probability and Statistics I (Fall 2017, Fall 2018, Spring 2022, Spring 2023)
  - MATH/STAT 3123: Probability and Statistics II (Spring 2017, Spring 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Fall 2021, Spring 2022, Fall 2022)
  - STAT 3128: Probability and Statistics for Engineers (Spring 2023)
  - STAT 1222: Introduction to Statistics (Online 2nd Summer 2017, 1st Summer 2018, 1st Summer 2019)

# Pennsylvania State University

- MATH/STAT 318: Elementary Probability (Fall 2014, Spring 2015)
- MATH/STAT 319: Applied Statistics in Science (Fall 2015, Spring 2016)

Semester	Course Number	Enrollment	% Response	Overall, this instructor was	
				effective (out of 5)	
				My Class	Department
Fall 2016	STAT 4123/5123	20	80.00%	4.88	4.03
Spring 2017	MATH/STAT 3123-001	36	58.33%	4.90	4.10
	MATH/STAT 3123-002	19	68.42%	4.62	4.10
Fall 2017	MATH/STAT 3122	70	34.29%	4.75	3.97
	STAT 4123/5123	20	65.00%	4.85	3.97
Spring 2018	MATH/STAT 3123	44	54.55%	4.83	4.12
	STAT 4124/5124	18	61.11%	4.91	4.12
Fall 2018	MATH/STAT 3122	63	46.03%	4.72	4.02
	STAT 4123/5123	21	52.38%	4.82	4.02
Spring 2019	STAT 3110	63	42.86%	4.70	4.10
	MATH/STAT 3123	45	57.78%	4.85	4.10
Fall 2019	MATH/STAT 3123	25	48.00%	4.83	3.97
	STAT 4123/5123	28	50.00%	5.00	3.97
Spring 2020	STAT 3110	76	28.95%	4.77	4.05
	MATH/STAT 3123	20	35.00%	4.86	4.05
Fall 2020	MATH/STAT 3123	21	47.62%	4.90	3.89
	STAT 4123/5123	11	82.00%	4.78	3.89
Fall 2021	MATH/STAT 3123	20	50.00%	4.70	3.92
	STAT 4123/5123	19	73.68%	4.57	3.92
Spring 2022	MATH/STAT 3122	43	46.51%	4.85	3.93
	MATH/STAT 3123	22	50.00%	4.64	3.93
Fall 2022	MATH/STAT 3123	28	42.86%	4.58	N/A
	STAT 4123/5123	12	41.67%	5	N/A
Spring 2023	MATH/STAT 3122	47	42.55%	4.7	N/A
	STAT 3128	60	33.33%	4.85	N/A

# Course and curriculum proposals developed

- 1. MATH 6690: Graduate Teaching Assistant Training, major contribution
- 2. Proposal for a Statistical Consulting Center, participated

# STUDENTS SUPERVISED

# Graduate students (with year of graduation)

- 1. Shanshan Wang, TBA, PhD Thesis (expected on May 2026)
- 2. Taylor Furukawa, Inequalities in education: a closer focus on school discipline, Master Thesis (co-advisor; May 2023)
- 3. Kimberly Mays, March Madness Prediction using Quantile Regression, Master Thesis (2022)
- 4. Soonmi Shim, Estimation of expectile-based Value-at-Risk using Single Index Expectile Regression, Master Thesis (2022)
- 5. Yuelin Liu, Factors affecting the housing price in North Carolina, Master Thesis (2019)

- 6. Jie Chang, Comparison of Dimension Reduction Techniques, Master Thesis (2018)
- 7. Yicheng Li, Predicting Value at Risk for SP500 Data, Master Thesis (2018)

# Undergraduate students (with year of graduation)

- 1. Jacob Pate, Predicting Rookie Year Success of NFL Running Backs using College Career and Scouting Combine Metrics, Math Senior Project (2022)
- 2. Benjamin Dula, Comparing Model Performance Based on Value-at-Risk and Expected Shortfall, Math Senior Project (2022)
- 3. Tanmay Kenjale, Beyond the PCA: A Comprehensive Review of Dimension Reduction Techniques, Math Honor Thesis (2022)
- 4. Heather Burns, Investigating racial and gender bias in traffic stops in the city of Charlotte, Math Senior Project (2021)
- 5. Annabel Settle, *Nonlinear Central Quantile Subspace*, Office of Undergraduate Research (OUR) Scholar Program (2021)
- 6. Evelyn Guidry, Assessing Anthropogenic and Natural Trends in Global Warming, Math Senior Project (2020)
- 7. Isabella Burton, Assessing Anthropogenic and Natural Trends in Global Warming, Math Senior Project (2020) joint work with Evelyn Guidry
- 8. Layla Ranjbar, Classification of Costa Rica poverty data, Math Senior Project (2019)
- 9. Sierra Laine, Risky Business: Quantifying Value at Risk, Math Honor Thesis (2019)
- 10. Yang Xu, Newsvendor Model Inventory Problem, Math Senior Project (2019)
- 11. Rawan Al-shaer, Learning the Associations of MITRE ATTECK Adversarial Techniques, Independent Study (2019)
- 12. Tyler Rastia, Studying the Factors Affecting the National Football League (NFL) Attendance, Math Senior Project (2018)
- 13. Kyriakos Vontas, Studying the Anthropogenic Global Warming Trend using Quantile Regression, Independent Study (2018)

#### STUDENTS' ACHIEVEMENTS

- 1. Benjamin Dula, undergraduate student, **poster presentation**, Comparing Model Performance Based on Value-at-Risk and Expected Shortfall, 2022 Undergraduate Research Conference, April 21-22, 2022, Virtual
- 2. Tanmay Kenjale, undergraduate student, **poster presentation**, Beyond the PCA: A Comprehensive Review of Dimension Reduction Techniques, 2022 Undergraduate Research Conference, April 21-22, 2022, Virtual
- 3. Kimberly Mays, graduate student,

• co-authored a peer-reviewed paper, Mays, K., and Christou, E. (2023+), 'March Madness Prediction Using Quantile Regression', under review

- winner of the poster presentation, Predicting March Madness Results Using a Quantile Regression Approach, 2021 October Math Symposium, October 16, 2021
- 4. Annabel Settle, undergraduate student
  - co-authored a peer-reviewed paper, Christou, E., Settle, A., and Artemiou, A. (2021), 'Nonlinear Dimension Reduction for Conditional Quantiles', Advances in Data Analysis and Classification 15, pp. 937–956
  - poster presentation, Nonlinear Dimension Reduction for Conditional Quantiles, 2020 October Math Symposium, October 24, 2020
  - poster presentation, Nonlinear Dimension Reduction for Conditional Quantiles, 2020 Undergraduate Research Conference, April 17, 2020 - conference cancelled due to COVID-19
- 5. Rawan Al-shaer, undergraduate student
  - co-authored a conference proceedings, Al-shaer, R., Spring, J., and Christou, E. (2020), 'Learning the Associations of MITRE ATT&CK Adversarial Techniques', IEEE Conference on Communication and Network Security (CNS), Virtual Conference, June 29 - July 1, 2020
  - conference presentation, Learning the Associations of MITRE ATTECK Adversarial Techniques, 2020 IEEE Conference on Communication and Network Security (CNS), Virtual Conference, June 29 - July 1, 2020
- 6. Sierra Laine, undergraduate student
  - poster presentation, Risky Business: Estimating Value-at-Risk for Bitcoin, 2019 Undergraduate Research Conference, March 29, 2019
  - paper publication, Laine, S., 'Risky Business: Estimating Value-at-Risk for Bitcoin', Actuarial Research Clearing House (ARCH), Spring 2019. https://www.soa.org/research/arch/arch-2019-iss-2/

# Membership on Degree Committee

- 1. Xu Cao, PhD Thesis, expected
- 3. Jie Chang, PhD Thesis, Dec 2022
- 5. Akshay Patil, Master Thesis, May 2021
- 7. Zhiqiang Wang, Master Thesis, May 2021
- 9. Joshua Mu, Master Thesis, December 2020
- 11. Avery Johnson, Math Honor Thesis, May 2019 12. Aizhong Lei, Master Thesis, May 2019
- 13. Ann Steward, PhD Thesis, May 2019
- 15. Liang Zhao, Master Thesis, May 2019
- 17. Jim Fan, Master Thesis, Dec 2018
- 19. Xueji Wang, Master Thesis, May 2018
- 21. Yumiao Li, Master Thesis, May 2018
- 23. Sarah Riegel, Math Honor Thesis, Dec 2017

- 2. Anastasia Stark, Master Thesis, May 2023
- 4. Masoumeh Kiasari, PhD Thesis, Dec 2021
- 6. Pramesh Subedi, PhD Thesis, May 2021
- 8. Avery Johnson, Master Thesis, May 2021
- 10. Yetong Zhou, PhD Thesis, May 2020
- 14. Chang Lu, Master Thesis, May 2019
- 16. Wei Zhang, Master Thesis, Dec 2018
- 18. Bo Qiu, Master Thesis, May 2018
- 20. Kyle Hooks, Master Thesis, May 2018
- 22. Zhiyuan Weng, Master Thesis, May 2018

#### TEACHING DEVELOPMENT

# Certifications Completed

1. Essentials of Learning Technology Certificate, Center for Teaching and Learning, University of North Carolina at Charlotte, September 2021

2. Essentials of Teaching and Learning Certificate, Center for Teaching and Learning, University of North Carolina at Charlotte, September 2019

# **Courses Completed**

- 1. Effective Online Teaching Bootcamp, January 11-12, 2021, offered by the Center for Teaching and Learning, University of North Carolina at Charlotte
- 2. Designing Effective Online Courses, July 20-31, 2020, offered by the UNC System Digital Learning Initiative, NC State University

#### Conferences Attended

- 1. **Attendee**, *REMOTE* the connected faculty summit, June 9-10, 2021, virtual conference hosted by Arizona State University
- 2. Attendee, The present and future of statistics in education, April 9, 2021, virtual conference hosted by the Cyprus Statistical Society, Cyprus
- 3. Attendee, REMOTE the connected faculty summit, July 13-14, 2020, virtual conference hosted by Arizona State University

# Workshops Attended, Center for Teaching and Learning, UNC Charlotte

- 1. Active Learning with Poll Everywhere, August 2023
- 2. Growth Mindset Activities for Your Class, August 2023
- 3. Syllabus and Classroom Communication on AI Tools, August 2023
- 4. Getting Started with ChatGPT, August 2023
- 5. Student Writing Skills with ChatGPT, August 2023
- 6. Student Study Skills with ChatGPT, August 2023
- 7. Overview of AI Tools, August 2023
- 8. Teaching with Zoom, Self-paced, August 2021
- 9. Canvas Assignments and Gradebook, August 2021
- 10. Starting with a fresh Canvas, Self-paced, August 2021
- 11. #Keep Teaching WebEx Quick Start, March 2020
- 12. #Keep Teaching Paper Tests Online with Respondus, March 2020

- 13. Syllabus 101: Roadmap to success, August 2019
- 14. Teaching with Poll Everywhere, March 2019
- 15. Viewpoint Diversity & Civil Discourse in the Classroom, March 2019
- 16. Introduction to Learning Objectives, February 2019
- 17. Using Feedback to Improve Teaching and Learning, February 2019
- 18. Enhancing Cultural Awareness, February 2019
- 19. Getting Started with Active Teaching and Learning, March 2018
- 20. Brain-Based Presentation Techniques to Enhance your Lectures, September 2017
- 21. Creating Videos in Canvas (Kaltura CaptureSpace), April 2017
- 22. Inclusive Learning and Teaching Practices, April 2017
- 23. Enhancing interaction in your online courses (Webinar), March 2017
- 24. Teaching fully online with Canvas, January 2017
- 25. Moving your paper exams to moodle the Fast Way with Respondus, January 2017
- 26. Six Simple Techniques for Assessing Students' Attitudes, Awareness and Values, November 2016
- 27. Developing a Student Learning Outcomes Assessment Plan and Report, October 2016
- 28. Getting Student Buy-In for the Active Learning Classroom, September 2016
- 29. Classroom Assessment Techniques for Busy Faculty, September 2016
- 30. 7 Tips for Communicating with Your Students in Canvas, September 2016

# Workshops Attended, Office of Disability Services, UNC Charlotte

1. UDFFS 4: How to prepare content for people who are low vision, November 2021

#### Workshops Attended, Cengage

- Exams, Discussion boards, Projects Oh My! Assessing Learning in All Course Formats, August 2020
- 2. How to Meet Your Instructional Goals this Fall Regardless of Course Format, July 2020
- 3. The Learning Science Behind Achieving Authentic and Effective Student Interactivity, June 2020

# Workshops Attended, Schreyer Institute, Pennsylvania State University

- 1. Enhancing Student Motivation, February 2016
- 2. How to Plan a Class Session, September 2015
- 3. Dealing with Challenging Classroom situations, September 2015

#### PROFESSIONAL DEVELOPMENT WORKSHOPS

1. NSF Grant Workshop at UNC Charlotte, sponsored by the Marshall A. Rauch Endowment, UNC Charlotte Department of Political Science & Public Administration, UNC Charlotte Office of Interdisciplinary Studies, and UNC Charlotte Public Policy, Ph.D. Program, May 2023

- 2. Pursuing Funding to Support Your Mathematics Research, Academic Research Funding Strategies, LLC, funded by the Mathematics and Statistics Department of the University of North Carolina at Charlotte, February 2022
- 3. Mentor Training, The Graduate School, University of North Carolina at Charlotte, January 2021
- 4. Catalyst: Accelerating Research Success, Research & Economic Development, University of North Carolina at Charlotte, May July 2020
- 5. Catalyst for CAREER: Accelerating Research Success, Research & Economic Development, University of North Carolina at Charlotte, March 2019
- 6. 002 Basic Excel, University of North Carolina at Charlotte, March 2018
- 7. 001 Excel Lists and Lookups, University of North Carolina at Charlotte, February 2018
- 8. New Faculty Transitions Program, University of North Carolina at Charlotte, 2016-2017

# University Services

# University Level

- 1. University Faculty Council, 2021-2022
  - Meet, discuss, and vote over various university related topics

#### College Level

- 1. Commencement Service, May 2017, December 2018, May 2019, December 2021
  - PhD Hooding ceremony for Dr. Ali Mahzarnia, December 2021 (as a result of Ali's advisor moving out of the country before graduation)

# Department Level

- 1. Ad Hoc Diversity Committee, 2021-present
  - Attend various conferences in an effort to recruit a more diverse group of students (2021 STAT Fest and STAT Fest Expo, 2021 Women in Statistics and Data Science)
  - Develop the strategic goals regarding diversity, equity, and inclusion
- 2. Faculty Advisor for the Mathematics Graduate Student Association (MGSA), 2021-present
  - Initiate and achieve the re-activation of the graduate student association
  - Organize several social events and workshops for the graduate students of the department
  - Organize the Math/Pi Day on March 2022 and March 2023.

- 3. GTA Mentor, 2018-present
  - Offer support to graduate students in their training as teacher-scholars
- 4. Actuarial Science Committee, 2017-2018, 2020-present
  - Discuss and develop the curriculum for the Actuarial Science program
  - Help to organize the annual alumni luncheon
- 5. Graduate Recruitment Committee, 2016-present
  - Select the PhD students of the department for the new academic year
- 6. High School Math Contest Exam Committee, 2016-present
  - Provide problems for the Algebra and Comprehensive exams for the annual UNCC High School Math Contest
- 7. Stat Hiring Committee, 2021-2023
  - Create the advertisement, evaluate the applicants, and conduct phone and in-person interviews
  - Serve as a chair of the committee for the 2022-2023 recruitment
- 8. Committee Organizer for the annual October Math Symposium, October 2020, October 2021
  - Contribute to the selection of the keynote speakers, the organization of the invited sessions, the students' poster presentations, and the STEM outreach
- 9. Final Exam Author and Reader, 2017-2022
  - Final Exam Reader for STAT 1222 (Spring 20117, Spring 2018)
  - Final Exam Reader for STAT 1220 (Fall 2019, Fall 2020, Spring 2022)
  - Final Exam Author for STAT 1220 (Spring 2019, Fall 2021, Fall 2022)
- 10. Advisory Committee, 2018-2019
  - Revise the 'Workload and Annual Review Policy' (can be found here: https://math.charlotte.edu/faculty-information/faculty-information)

#### Professional Activities

- NSF Panelist and Reviewer (2023)
- Associate Editor: Journal of Econometrics and Statistics, Part B: Statistics (2021-present)
- Refereed for: Bernoulli (2022), Biometrics (2018), Computational and Mathematical Methods (2021), Computational Statistics and Data Analysis (2017, 2020-2022), Econometric and Statistics (2019-2022), Journal of the American Statistical Association (2019, 2020, 2022), Journal of Applied Statistics (2017, 2021-2022), Journal of Computational and Applied Mathematics (2020), Journal of Statistical Planning and Inference (2018), Journal of Statistical Computation and Simulation (2018, 2020-2022), Scandinavian Journal of Statistics (2021), Statistica Neerlandica (2020), Statistica Sinica (2017)
- Mentor for the National Alliance for Doctoral Studies in the Mathematical Sciences (Math Alliance), Spring 2021-present
- Scientific Programme Committee Member for the 14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), King's College London, London, UK, December 2021

#### VOLUNTEER WORK

1. Initiate the re-activation of the Mathematics Graduate Student Association (MGSA), Fall 2021: Form the students' committee, develop the bylaws, and complete all the requirements for the re-activation of the association; currently serving as the faculty advisor.

- 2. Initiate and lead students' study group, University of North Carolina at Charlotte, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019: Organize and teach review sessions to students for actuarial exam P (Probability) once a week.
- 3. Guest speaker to Mallard Creek Stem Academy, Charlotte, NC, Fall 2018: Develop interactive games to teach elementary students basic concepts of mathematics
- 4. Guest speaker to the Math Graduate Students Association, Department of Mathematics and Statistics, University of North Carolina at Charlotte, Spring 2018: Invited talk about 'Navigating Transitions: Life before and after Graduate School'
- 5. Day of Service Operation Sandwich, University of North Carolina at Charlotte, April 2017: Warmly welcomed students with sandwiches and words of encouragement.

#### CERTIFICATIONS

- Essentials of Learning Technology, Center for Teaching and Learning, University of North Carolina at Charlotte, September 2021
- Essentials of Teaching and Learning Certificate, Center for Teaching and Learning, **University** of North Carolina at Charlotte, September 2019
- Actuarial Exam P (Probability), March 2017