CURRICULUM VITA

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Tallahassee, FL 32306-4330

EMPLOYMENT

08/2023-present Assistant Professor (Tenure-Track)

Department of Statistics, Florida State University

EDUCATION

08/2019-08/2023 **Ph.D. in Biostatistics**

Department of Biostatistics, University of Florida

Department of Industrial Engineering and Operations Research,

Columbia University

08/2013-05/2017 **B.S.** in Mathematics

B.S. in Actuarial Science
Department of Mathematics,
The Ohio State University

RESEARCH INTERESTS

Data Streams Monitoring, Sequential Learning, Statistical Process Control, Environmental Monitoring, Machine Learning, Big Data Analytics.

PUBLICATIONS

Note: Names with an <u>underline</u> denote current or former students

- 1. **Xie, X**. (2025+) "An adaptive CUSUM chart for robust monitoring of multivariate processes". *Journal of Quality Technology*, In press.
- 2. **Xie, X**. (2025+) "Adaptive LASSO-based robust multivariate process monitoring and diagnostics". *Quality and Reliability Engineering International*, In press.

- 3. **Xie, X**. (2025+) "Statistical Methods for Dynamic Disease Screening and Spatio-Temporal Disease Surveillance by Peihua Qiu", *Biometrics*, In press.
- 4. Yi, F., Xie, X., and Qiu, P. (2025) "A change-point-detection chart for detecting process mean drifts with an application for monitoring the shape of the Salton Sea", in Frontiers in Statistical Quality Control 14, Springer.
- 5. **Xie, X.**, and Qiu, P. (2024) "A general framework for robust monitoring of multivariate processes". *Technometrics*, **66**, 40-54.
- 6. **Xie, X.**, Qian, N., and Qiu, P. (2024) "Online monitoring of air quality using PCA-based sequential learning". *Annals of Applied Statistics*, **18**, 600-625.
- 7. Wang, Y., **Xie**, **X.**, and Qiu, P. (2024) "A nonparametric online monitoring of dynamic networks". *Journal of Quality Technology*, **56**, 214-243.
- 8. **Xie, X.**, and Qiu, P. (2023) "Control charts for dynamic process monitoring with an application to air pollution surveillance". *Annals of Applied Statistics*, **17**, 47-66.
- 9. **Xie, X.**, and Qiu, P. (2023) "Dynamic process monitoring using machine learning based control charts", in *Artificial Intelligence for Smart Manufacturing: Methods, Applications, and Challenges* (edited by Kim Phuc Tran), 65--82, Springer.
- 10. **Xie, X.**, and Qiu, P. (2022) "Robust monitoring of multivariate processes with short-ranged serial data correlation". *Quality and Reliability Engineering International*, **38**, 4196-4209.
- 11. **Xie, X.**, and Qiu, P. (2022) "Machine learning control charts for monitoring serially correlated data", in *Control Charts and Machine Learning for Anomaly Detection in Manufacturing* (edited by Kim Phuc Tran), 131--147, Springer.
- 12. Qiu, P., and **Xie**, **X.** (2022) "Transparent sequential learning for statistical process control of serially correlated data". *Technometrics*, **64**, 487-501.
- 13. Yildiz, H., Talluri, S., **Xie, X.**, Yoon, J., Qiu, P., and Wassick, J. (2022) "Evaluating and monitoring distribution network efficiency with multivariate process control methods". *International Journal of Production Research*, **38**, 134-152.

PAPER UNDER REVIEW

- 1. **Xie, X**. and <u>Ha, J.</u> "Online monitoring of irregularly spaced serially correlated univariate processes". (Under Review in *Naval Research Logistics*)
- 2. <u>Liao, R</u>, Yi, F, and **Xie, X**. "Control charts for detecting linear drifts in multivariate process mean and covariance matrix". (Under Review in *Applied Stochastic Models and Business and Industry*)

GRANT SUPPORT

• (PI) 2024-2025, First Year Assistant Professor Award, Florida State University. Proposal Title: Real-Time Monitoring and Diagnostics of High-Dimensional Data Streams

TEACHING EXPERIENCE

Florida State University

Fall 2025	STAT 5666: Statistics for Quality and Productivity
Spring 2025	STAT 4322/5325: Mathematical Statistics
T 11 000 4	CELE 4001/5000 I . 1

STAT 4321/5323: Introduction to Mathematical Statistics Fall 2024 Spring 2024 STAT 4321/5323: Introduction to Mathematical Statistics Fall 2023 STAT 4321/5323: Introduction to Mathematical Statistics

University of Florida

Fall 2022 PHC 6068: Biostatistical Computing

STUDENTS/POSTDOC ADVISING

Advisor or Co-advisor

Xiaohe Chen	Ph.D.	Defended (Co-advise with Chao Huang)
Jiwoo Ha	Ph.D.	Ongoing
Kehao Wang	Ph.D.	Ongoing
Hengwei Xing	Ph.D.	Ongoing
Yangshuang Xu	Ph.D.	Ongoing (Co-advise with Chao Huang)
Runzi Liao	Ph.D.	Ongoing (Co-advise with Rongjie Liu)
Tunzi Liuo	I II.D.	ongoing (co davise with redigite Liu)

Committee Member for Other FSU Students

Michael Wilson	Ph.D.	Department of Statistics (Defended)
Woo-Min Kim	Ph.D.	Department of Statistics (Defended)
Duo Wang	Ph.D.	Department of Statistics (Ongoing)

HONORS AND AWARDS

2022	Best Student Paper Award, 2022 ICSA Applied Statistics Symposium
2022	National Science Foundation Travel Award, 2022 Quality and Productivity Research Conference
2022	Outstanding Dissertation Research Award, Department of Biostatistics, University of Florida
2022	Best Presentation Award, 2022 ASA Annual Florida Chapter Meeting
2022	Student Travel Award, Department of Biostatistics, University of Florida
2021	National Science Foundation Travel Award, 2021 Quality and Productivity Research Conference
2021	Student Travel Award, Department of Biostatistics, University of Florida

INVITED PRESENTATIONS

1. "Online monitoring of multivariate data streams using PCA-based sequential learning", 2025 **INFORMS** Annual Meeting

- 2. "An adaptive CUSUM chart for robust monitoring of multivariate process", 2025 Joint Statistical Meeting
- 3. "Online monitoring of multivariate data streams using PCA-based sequential learning", 2025 the Statistics colloquium at University of Idaho
- 4. "A general framework for robust monitoring of multivariate processes", 2024 INFORMS Annual Meeting
- 5. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2024 Statistics colloquium (Online) at Shanghai University of Finance and Economics
- 6. "Transparent sequential learning for statistical process monitoring", 2024 Joint Research Conference on Statistics in Quality, Industry and Technology
- 7. "Online monitoring of multivariate data streams using PCA-based sequential learning", 2024 the 8th International Workshop in Sequential Methodologies
- 8. "Online monitoring of multivariate data streams using PCA-based sequential learning", 2023 Statistics colloquium at Florida State University
- 9. "A change-point-detection chart for detecting process mean drifts with an application for monitoring the shape of the Salton Sea", The XIVth International Workshop on Intelligent Statistical Quality Control
- 10. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2023 Statistics colloquium at University of Cincinnati
- 11. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2023 Statistics colloquium at Oklahoma State University
- 12. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2023 Statistics colloquium at University of Colorado Denver
- 13. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2023 Statistics colloquium at Florida State University
- 14. "Transparent sequential learning: A powerful tool for monitoring sequential processes", 2022 Statistics colloquium at William & Mary
- 15. "Transparent sequential learning for statistical process control of serially correlated data", 2022 Joint Statistical Meeting
- 16. "High-dimensional dynamic process monitoring by PCA-based sequential learning", 2022 INFORMS Annual Meeting
- 17. "High-dimensional dynamic process monitoring by PCA-based sequential learning", 2022 ICSA Applied Statistics Symposium
- 18. "Transparent sequential learning for statistical process control of serially correlated data", 2021 INFORMS Annual Meeting

REFEREEING FOR JOURNALS

Annals of Applied Statistics, Technometrics, Statistica Sinica, IISE Transactions, Journal of Applied Statistics, Statistics in Medicine, Statistics and Data Science in Imaging, Naval Research Logistics, Machine Learning, Journal of the Operational Research Society, Quality and Reliability Engineering International, International Journal of Production Research, Quality Technology and Quantitative Management, Stochastic Environmental Research and Risk Assessment, Knowledge-Based Systems, Research in Statistics, Mathematics

SERVICE

Journal and Society

03/2024 - Guest Editor, Quality and Reliability Engineering International

Department, College, and University (Florida State University)

08/2024 – Dirac Library Book Orders

04/2024 - Member, Local Organizing Committee, 2024 Theory and Foundations of Statistics in the Era of Big Data

04/2024 - Co-Chair, Student Awards Committee, 2024 Theory and Foundations of Statistics in the Era of Big Data

09/2023 – Member, Organizing Committee, 2024 ASA Florida Chapter Meeting 09/2023 – Chair, Student Awards Committee, 2024 ASA Florida Chapter Meeting

Academic Conferences

12/2025	Session Organizer, 2025 13th ICSA International Conference
10/2024	Judge for Best Student Paper Award, 2024 INFORMS Annual Meeting
06/2024	Session Organizer and Chair, 2024 Joint Research Conference
10/2023	Session Organizer and Chair, 2023 INFORMS Annual Meeting
10/2022	Session Organizer and Chair, 2022 INFORMS Annual Meeting
08/2021	Session Chair, 2021 INFORMS Conference on Service Science

PROFESSIONAL MEMBERSHIP

American Statistical Association (ASA)

American Society for Quality (ASQ)

Institute of Mathematical Statistics (IMS)

International Chinese Statistical Association (ICSA)

Institute for Operations Research and the Management Sciences (INFORMS)