

Jongik Chung, Ph.D.

CONTACT INFORMATION Department of Statistics & Data Science University of Central Florida Orlando, FL 32816 Phone: +1 (407) 823 – 1468 Email: Jongik.Chung@ucf.edu

EDUCATION **University of Georgia, Athens, GA**

Ph.D. Statistics, August 2020

- Adviser: Dr. Cheolwoo Park
- Thesis Topic: Joint Estimation and Regularized Aggregation in Brain Network Analysis

M.S., Statistics, May 2016

Korea University, Seoul, Republic of Korea

M.B.A. Finance, August 2014

- Adviser: Dr. Joonho Hwang
- Thesis Topic: A Study on the Association between Employment and Financial Performance in Recession

B.B.A. Business Administration, August 2011

EMPLOYMENT HISTORY **Assistant Professor** Aug 2020 to Current
Department of Statistics & Data Science, University of Central Florida Orlando, FL

Research Assistant Aug 2018 to May 2020
Department of Statistics, University of Georgia Athens, GA

Teaching Assistant Jan 2016 to May 2020
Department of Statistics, University of Georgia Athens, GA

Research Assistant Mar 2013 to Feb 2014
Department of Business Administration, Korea University Seoul, Republic of Korea

HONORS AND AWARDS The Graduate School Travel Award, University of Georgia, July 2019
Regents' Out-of-State Tuition Waiver Award, University of Georgia, April 2015
The Ministry of SMEs and Startups (MSS) Award, The Korea Economy Daily – KT&G 2011 Asian Students Venture Forum, Dec 2010
Honors Scholarships, Korea University, Sep 2010

TEACHING **Instructor**

STA 2023H: Honors Statistical Methods I (Class size: 12, 18) SP 2024, FA 2023
STA 6346: Advanced Statistical Inference I (Class size: 8, 10) SP 2024, FA 2020

STA 6236: Regression Analysis	(Class size: 26, 22, 30)	FA 2023, FA 2022 FA 2021
STA 4852: Applied Time Series	(Class size: 65, 57, 79)	SP 2023, SP 2022 SP 2021
STA 6238: Logistic Regression	(Class size: 12, 23)	SP 2023, SP 2021
STA 5104: Advanced Computer Processing of Statistical Data	(Class size: 21)	FA 2022
STA 6908: Directed Independent Studies	(Class size: 1)	FA 2022
STA 2014: Principles of Statistics	(Class size: 225)	FA 2021

Comprehensive Exam Committees

Statistics and Data Science (MS) Comprehensive exam committee	Aug 2021
Statistics and Data Science (MS) Comprehensive exam committee	Jan, Aug 2022
Statistics and Data Science (MS) Comprehensive exam committee	Jan, Aug 2023

Dissertation / Thesis / Research Project Advising

MS Thesis Committee member (Thien Pham, Statistics)	SP 2024 to current
MS Thesis Committee member (Joshua Head, Statistics)	SP 2024 to current
MS Thesis Committee member (Shahabeddin Abbaspour Tazehkand, Statistics)	FA 2023 to current
MS Thesis Committee member (Andres Rosales, Statistics)	FA 2023 to current
PhD Dissertation Committee member (Victor Nkwocha, Big Data Analytics)	FA 2023 to current
PhD Dissertation Committee member (Samgyu Yang, Civil Engineering)	FA 2023 to current

Teaching Assistant

STAT 8350: Bayesian Statistical Methodology with Applications	SP 2020
STAT 4/6365: Modern Statistical Programming	FA 2019
STAT 6210: Introduction to Statistical Methods I	Summer 2019
STAT 8620: Categorical Data Analysis and Generalized Linear Models	FA 2018
STAT 4/6360: Statistical Software Programming	SP 2018, FA 2017 SP 2017, FA 2016
STAT 8260: Theory of Linear Models	SP 2017
STAT 6220: Introduction to Statistical Methods II	FA 2016
STAT 4210: Statistical Methods	SP 2016

Journal Articles:

Warren, N., Maskin, S., Gurupur, V., Rector, D., Adelman, D., Howell, S., McAree, J., Dibble, R., Carlisano, C., Maconi, D., Schrottenboer, D., Jaimes, M., Marte, N., Carlisano, T., Toland, C., **Chung, J.**, Cremers, S., & Corbin, G. (2024) “Engaging Stakeholders to Develop a Roadmap for Dry Eye and MGD PCORI-Funded Research”, *Patient Related Outcome Measures*, accepted. (Refereed, all authors contributed equally to this work)

Lee, W., Wahman, D. G., Lytle, D. A., Pressman, J. G., & **Chung, J.** (2023) “Microelectrode evaluation of in situ oxidant reactivity and pH variability at new ductile iron and copper coupon surfaces”, *Water Research*, Volume 243, 120352. (Refereed, first author had greatest contribution)

Lee, W., Park, C., Diaz, D., Rodriguez, K., **Chung, J.**, Church, J., Willner, M., Lundin, J., & Paynter, D. (2022) “Predicting Bilgewater Emulsion Stability by Oil Separation using Image Processing and Machine Learning”, *Water Research*, Volume 223, 118977. (Refereed, first author had greatest contribution)

Chung, J., Jackson, B. S., McDowell, J. E., & Park, C. (2021) “Joint Estimation and Regularized Aggregation of Brain Network in fMRI Data”, *Journal of Neuroscience Methods*, Volume 364, 109374. (Refereed, first author had greatest contribution)

Zhang, Q., Park, C., & **Chung, J.** (2021) “Minimax Estimation of Covariance and Precision Matrices for High-Dimensional Time Series with Long-Memory”, *Statistics & Probability Letters*, 109177. (Refereed, first author had greatest contribution)

Wang, L. Y., **Chung, J.**, Park, C., Choi, H., Rodrigue, A. L., Pierce, J. E., Clementz, B.A. & McDowell, J. E. (2019) “Regularized aggregation of statistical parametric maps”, *Human brain mapping*, 40(1), 65-79. (Refereed, first author had greatest contribution)

Symposium:

Rodriguez, K., Park, C.Y., **Chung, J.**, Church, J., Lundin, G. J., Paynter, D.M., & Lee, W.H. (2021), “Emulsion Stability Study of Simulated Bilgewater Samples with Varying Parameters for Improved Bilgewater Treatment and Management”, *2021 SERDP/ESTCP Symposium*. (Not refereed, first author had greatest contribution)

Under review or in preparation:

Zhang, Q., **Chung, J.**, & Park, C. (2024) “Joint Estimation of Precision Matrices for High-Dimensional Time Series with Long-Memory”, *Electronic Journal of Statistics*, under review. (Refereed, first author had greatest contribution; co-corresponding author)

Chung, J., Park, C., & Zhang, Q. (2024+) “Joint Graphical Lasso with Regularized Aggregation for Brain Network Analysis”, *Electronic Journal of Statistics*, in preparation. (Refereed, first author had greatest contribution; co-corresponding author)

RESEARCH – **Invited:**
PRESENTATIONS EcoSta 2023 Hybrid Conference, Tokyo, Japan, August 2023
“Joint Estimation of Precision Matrices for High-Dimensional Time Series with Long-Memory”, 2023 Annual ASA Florida Chapter Meeting, Gainesville, FL, March 2023

Contributed:

“Joint Estimation of Precision Matrices for High-Dimensional Time Series with Long-Memory”, UCF Statistics & Data Science Colloquium Series, Orlando, FL, February 2023

“Estimation of Covariance and Precision Matrices for Graphical Models”, UCF Statistics & Data Science Colloquium Series, Orlando, FL, March 2022

UCF Statistics & Data Science Colloquium Series, Orlando, FL, November 2020

Advancing Informatics in Government and Industry, Athens, GA, November 2019

Georgia Statistics Day, Atlanta, GA, October 2019

“Joint Estimation and Regularized Aggregation of Brain Network in fMRI Data”, Joint Statistical Meeting, Denver, CO, August 2019

“Regularized Aggregation of Statistical Parametric Maps”, Georgia Statistics Day, Athens, GA, October 2018

RESEARCH – **Invited:**
CREATIVE WORKS Not A Dry Eye Convening for “Engaging Stakeholders to Develop a Roadmap for Dry Eye and MGD PCORI-Funded Research”, Online, March 2022

RESEARCH – **Active:**
GRANTS & **Florida Breast Cancer Foundation Scientific Research Grants (GR108368)**
PROPOSALS Title: Mediators of Disparity of Quality of Life in Hispanic Breast Cancer Survivors
My role: **Co-Investigator** (PI: Eunkyung Lee (Health Science), Co-Is: Victoria Loerzel (Nursing), Jongik Chung (Statistics))
Total amount: **\$98,692**
Period: 07/01/2023 – 06/30/2024

Proposed:

NIH R21 SF424 R&R and PHS-398

Title: Validation and Feasibility of the Activities Completed Over Time in 24-hours (ACT24) in Youth

My role: **Co-Investigator** (PI: A’Naja Newsome (Health Science), Co-Is: Brazendale Keith (College of Health Professions & Sciences), Jongik Chung (Statistics))

Total amount: **\$418,000**

Period: 09/01/2024 – 08/31/2026

SERVICES **Book Proposal Review**

- A data science textbook, John Wiley & Sons, 2023
- A new edition for logistic regression textbook, John Wiley & Sons, 2023
- A data science textbook, John Wiley & Sons, 2023
- A data analytics textbook, CRC Press – Taylor & Francis Group, 2022

College of Science, University of Central Florida

- TIP Selection Committee: 2023 – 2024
- Research Committee: 2023 – 2024

Department of Statistics and Data Science, University of Central Florida

- Bylaws and Strategic Goal: 2023 – 2024
- Graduate Curriculum: 2023 – 2024
- Scholarship Committee: 2022 – 2023, Sp 2022, Sp 2021
- Assessment (Ph.D. Big Data Analytics): 2022 – 2023, Fall 2021
- P&T Revision Committee: 2022 – 2023
- Graduate Programs: Sp 2023, Fall 2020
- M.S. Program Revision Committee: Fall 2022 (**Chair**)
- Search Committee (Tenured / Tenure-Earning): Fall 2022
- Colloquium Committee: 2020 – 2021, 2021 – 2022 (**Chair**)
- Search Committee (Instructor / Lecturer): Sp 2022
- 2021 FL ASA Traveling Course Coordinator: Fall 2021 (**Coordinator**)
- STA 2014 Coordinator: Fall 2021 (**Coordinator**)
- Assessment (M.S. Statistical Computing): Fall 2021
- I/L Promotion Criteria development: Sp 2021
- Assessment (B.S. Statistics): Fall 2020
- Undergraduate Curriculum: 2020 – 2021

RESEARCH
EXPERIENCE

Research Assistant Aug 2018 to May 2020

Department of Statistics, University of Georgia Athens, GA

- Supported by the National Science Foundation (NSF IIS-1607919)
- Develop statistical methods to reveal the relationships in brain networks

Neuroimaging Data Analysis Group Member Aug 2017 to May 2020

Department of Statistics, University of Georgia Athens, GA

- A group of faculty and graduate students from the Departments of Statistics and Psychology meet each week to discuss general problems in Neuroimaging data analysis
- Present research and review papers in neuroimaging science

Research Assistant

Mar 2013 to Feb 2014

**Department of Business Administration,
Korea University**

Seoul,
Republic of Korea

- Supported by the university for the Brain Korea 21 Project
- Collect research data and organize them to write a business plan book

PROFESSIONAL
ACTIVITIES

Organization Membership

- American Statistical Association (ASA)
- Institute of Mathematical Statistics (IMS)
- Korean – American Scientists and Engineers Association (KSEA)
- Korean International Statistics Society (KISS)

PROGRAMMING
SKILLS

R, SAS, Python, JMP