Kejin Wu

Ph.D. Candidate
Department of Mathematics
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Education

2021-now Ph.D. in Statistics, University of California, San Diego
2019-2021 M.S. in Statistics, University of California, San Diego
2018 Exchange student, University of Queensland
2015-2019 B.S. in Mathematics and Applied Mathematics, Chongqing University

Research Interests

Sampling methods • Model-free bootstrap & Scalable subsampling
Time series analysis • Pertinent prediction inference
Machine learning • Deep generative models

Publications & Preprints

2024 **Wu, K.** and Politis, D.N., Scalable Subsampling Inference of Deep Neural Networks. (Paper Link)

2023 Ryan, O., **Wu, K.** and Jacobson, N.C., Exploratory Continuous-Time Modeling (expct): Extracting Dynamic Features from Irregularly Spaced Time Series. (Under working)

2023 **Wu, K.**, Gupta, R., Pierdzioch, C., Karmakar, S., Climate Risks and Stock Market Volatility Over a Century in an Emerging Market Economy: The Case of South Africa. (Paper Link)

2023 **Wu, K.** and Politis, D.N., Prediction Inference of Non-linear Parametric Autoregressive Models with Bootstrap, 2023. (Paper Link)

2023 Politis, D.N. and **Wu, K.**, Non-parametric Forward Bootstrap on Predicting Non-linear Time Series: Consistency, Pertinence and Debiasing, Stats 2023. (Paper Link)

2023 **Wu, K.** and Karmakar, S., A model-free approach to do long-term volatility forecasting and its variants, Financial Innovation 2023. (Paper Link)

2021 **Wu, K.** and Karmakar, S., Model-Free Time-Aggregated Predictions for Econometric Datasets, Forecasting 2021. (Paper Link)

2020 **Wu, K.**, McFadden, J.R. and Jacobson, N.C., Determining Timing Effects of Microrandomized Trials Using Intensive Longitudinal Data and the Differential Time-Varying Effect Model, 2020. (Paper Link)

Teaching Experience

Associate Instructor, University of California, San Diego
2024 Spring MATH 11: Calculus-Based Introductory Probability and Statistics
2023 Fall MATH 11: Calculus-Based Introductory Probability and Statistics
2023 Summer MATH 10A: Calculus I

2021 - 2024 **Teaching Assistant**, University of California, San Diego
MATH 287A: Time Series Analysis
MATH 170A: Introduction to Numerical Analysis: Linear Algebra
MATH 180A: Introduction to Probability
MATH 180B: Introduction to Stochastic Processes I
MATH 180C: Introduction to Stochastic Processes II
MATH 181A: Introduction to Mathematical Statistics I
MATH 181B: Introduction to Mathematical Statistics II
MATH 183: Statistical Methods
MATH 189: Exploratory Data Analysis and Inference
MATH 11: Calculus-Based Introductory Probability and Statistics

Presentations

2023 **Extracting Dynamic Features from Irregularly Spaced Time Series**, Society Ambulatory Assessment. (Online)(Slides)

Services

Journal reviewers
Statistics and Computing; Mathematics and Computers in Simulation; Journal of Systems Science and Information

Fellowship, Honor & Award

2022 Libby Graduate Research Award
2021-2023 James B. Ax Graduate Fellowship
2019 Outstanding Student of Chongqing
2018 The Mathematical Contest in Modeling (MCM), COMAP, Meritorious Winner
2016 Mathematics Competition of Chinese College Students, First Prize Winner in Chongqing

R Package

expct: Estimate auto- and cross-correlations from irregularly spaced time series, with Prof. Ryan. (Github)