

Kejin Wu

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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

Submitted and Working Manuscripts

2024	Wu, K. and Politis, D.N., Deep Limit Model-free Prediction in Regression. (<i>Submitted to ACM/IMS Journal of Data Science</i>) (Paper Link)
2024	Wu, K. and Politis, D.N., Scalable Subsampling Inference of Deep Neural Networks. (<i>Under minor revision from ACM/IMS Journal of Data Science</i>) (Paper Link)
2024	Wu, K., Karmakar, S. and Gupta, R., GARCHX-NoVaS: A Model-free Approach to Incorporate Exogenous Variables. (<i>Submitted to Journal of Forecasting</i>) (Paper Link)
2023	Ryan, O., Wu, K. and Jacobson, N.C., Exploratory Continuous-Time Modeling (expct): Extracting Dynamic Features from Irregularly Spaced Time Series. (<i>Under working</i>)
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. (<i>Under working</i>) (Paper Link)

Publications

2024	Wu, K. and Politis, D.N., Bootstrap Prediction Inference of Nonlinear Autoregressive Models, <i>Journal of Time Series Analysis</i> 2024, 45, 800-822. (Paper Link)
2023	Wu, K., Gupta, R., Pierdzioch, C. and Karmakar, S., Climate Risks and Stock Market Volatility over A Century in An Emerging Market Economy: The Case of South Africa. <i>Climate</i> 2024, 12(5), 68. (Paper Link)
2023	Politis, D.N. and Wu, K., Non-parametric Forward Bootstrap on Predicting Non-linear Time Series: Consistency, Pertinence and Debiasing, <i>Stats</i> 2023, 6(3), 839-867. (Paper Link)
2023	Wu, K. and Karmakar, S., A Model-free Approach to Do Long-term Volatility Forecasting and Its Variants, <i>Financial Innovation</i> 2023, 9(59). (Paper Link)
2021	Wu, K. and Karmakar, S., Model-Free Time-aggregated Predictions for Econometric Datasets, <i>Forecasting</i> 2021, 3(4), 920-933. (Paper Link)

Teaching Experience

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

Conferences

2024	Workshop on Statistical Frontiers in LLMs and Foundation Models, NeurIPS, <i>Deep Limit Model-free Prediction & Subsampling on Deep Neural Networks</i>
2023	Society Ambulatory Assessment, <i>Extracting Dynamic Features from Irregularly Spaced Time Series</i>

Services

Journal reviewers

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

Mentor

UCSD Math department mentorship program

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

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

Computing Skills

Python, R, SQL, C++, Distributed Computing (Open Science Pool), Linux