

MIHYUN KIM

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ACADEMIC POSITIONS

West Virginia University , Morgantown, WV, USA Assistant Professor, Department of Statistics	Aug 2022 - Present
University of Waterloo , Waterloo, ON, Canada Postdoctoral Fellow, Department of Statistics and Actuarial Science Supervisor: Greg Rice	Sep 2021 - July 2022

EDUCATION

Colorado State University , Fort Collins, CO, USA Dissertation: Heavy tail analysis for functional and internet anomaly data PhD, Statistics Advisor: Piotr Kokoszka	Aug 2016 - Aug 2021
Yonsei University , Seoul, S. Korea Masters of Mathematics	2012
Yonsei University , Seoul, S. Korea Bachelor of Mathematics, Civil engineering	2009

RESEARCH INTEREST

Functional data analysis, time series analysis, extreme value theory, heavy tail analysis, extremal dependence, applications to finance and environmental science.

PUBLICATIONS

Published

1. **Kim, M.**, Kokoszka, P., Rice, G. (2023) White noise testing for functional time series. *Statistics Surveys*, **17**, 119–168.
2. **Kim, M.**, Kokoszka, P. (2023). Asymptotic and finite sample properties of Hill-type estimators in the presence of errors in observations. *Journal of Nonparametric Statistics*, **35**, 1–18.
3. **Kim, M.**, Kokoszka, P. (2022). Extremal dependence measure for functional data. *Journal of Multivariate Analysis*, **189**, 104887.

4. Nigg C., Nigg C., **Kim M.**, Sharp, J., Burg, X., Cunningham-Sabo, L. (2021). How should we choose the most appropriate Epoch-Length for Children's Physical Activity? *Proceedings from the 8th International Society for Physical Activity and Health Congress*, **14**(3).
5. **Kim, M.**, Kokoszka, P. (2020). Consistency of the Hill estimator for time series observed with measurement errors. *Journal of Time Series Analysis*, **41**, 421–435.
6. **Kim, M.**, Kokoszka, P. (2019). Hill estimator of projections of functional data on principal components. *Statistics*, **53**, 699–720.
7. **Kim, M.**, Kim, J., Yoon, J. (2015). Optimal portfolio selection under stochastic volatility and stochastic interest rates. *Journal of the Korean Society for Industrial and Applied Mathematics*, **19**, 417–428.

Under review

1. **Kim, M.**, Kokoszka, P., Rice, G. (2024+). Projection-based white noise and goodness-of-fit tests for functional time series. *submitted*.
2. Nigg C., Nigg C., **Kim M.**, Sharp, J., Burg, X., Cunningham-Sabo, L. (2024+). Evaluating the Association of Epoch-Length with Meeting Physical Activity Guidelines in Children. *submitted*.

PRESENTATIONS

Invited Presentations in Conferences/Workshops

Computational and Methodological Statistics, King's College London,	2022
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Invited Seminars and Presentations

Chair of Statistical Data Science, EPFL (group meeting),	2022
Department of Statistics, West Virginia University,	2022
Department of Mathematics and Statistics, Auburn University,	2022
Department of Mathematics and Statistics, Montana State University,	2021

Contributed

Joint Statistical Meetings, virtual,	2020
Joint Statistical Meetings, Denver, CO,	2019
Extreme Value Analysis, Zagreb, Croatia,	2019
Colorado Wyoming Chapter of the ASA's Spring Meeting, Boulder, CO,	2019

AWARDS

James L., M. Leslie, and Edna Madison Memorial Award,	2020
This award is given to the student selected by the statistics faculty as the outstanding graduate student in the Department of Statistics at CSU.	

Department Distinguished Service Award,

2019

This award honors a student for the service given to the Department of Statistics at CSU.

GRANT WRITING

WVU Faculty Travel/Development Grants (\$900), July 1, 2022 - Aug 31, 2023

TEACHING EXPERIENCE

West Virginia University

STAT 512: Statistical Methods 2	F22, S23, F23
STAT 461/561: Theory of probability	F23

University of Waterloo

STAT 220: Probability theory	W22
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Colorado State University

Instructor

STAT 301: Introduction to Applied Statistical Methods	S21*
STAT 307: Introduction to Biostatistics	F19

* delivered in a hybrid and asynchronous format during pandemic, with lectures pre-recorded by another instructor and recitation-type classes run by Mihyun Kim.

Recitation

STAA 577: Statistical Learning and Data Mining	S19
STAT 201: General Statistics	F18

Course Development

STAT 472: Statistical Consulting Capstone

*Distance Course Coordinator***

STAT 315: Introduction to Theory and Practice of Statistics	Sm21
STAT 201: General Statistics	Sm21
STAT 301: Introduction to Applied Statistical Methods	F20
STAA 577: Statistical Learning and Data Mining	S19
STAA 552: Generalized Regression Models	Sm18

** run courses in a virtual and asynchronous format, with lectures pre-recorded by another instructor.

Teaching Assistant

STAT 521: Stochastic Processes	F20
DSCI 445: Statistical Machine Learning	F20
STAT 530: Mathematical Statistics	S20
STAA 554: Mixed Models	S20
STAA 553: Experimental Design	S20
STAA 578: Machine Learning	S19
STAA 566: Data Visualization Methods	F18
STAA 577: Statistical Learning and Data Mining	S18
STAA 565: Quantitative Reasoning	S18
STAA 552: Generalized Regression Models	F17
STAA 551: Regression Models and Applications	F17, S18
Master of Applied Statistics Bootcamp	Sm17
STAT 430: Probability and Mathematical Statistics II	S17
STAT 312: Statistics for Behavioral Sciences II	S17
STAT 420: Probability and Mathematical Statistics I	F16
STAT 311: Statistics for Behavioral Sciences I	F16

PROFESSIONAL SERVICE & MEMBERSHIP

West Virginia University

New PhD Program Design Committee	2023
Department Faculty Evaluation Committee	AY2022–2023
M.S. Degree Committee Member (Kellee Payne)	2022

Service

ASA's Continuing Education Program at JSM monitor	2020
The 14th Graybill Conference at CSU volunteer	2017

Panel / Grant Proposal Reviewer

National Science Foundation, Division of Mathematical Sciences.	2023
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Reviewer

Journal of Multivariate Analysis, Journal of Time Series Analysis, Scandinavian Journal of Statistics, and Metrika

Professional Membership

Member: ASA

COMPUTER SKILLS

Proficient in R, Matlab

Experienced Python, C, VBA, SQL

Last updated: December 25, 2023

Mihyun Kim

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