MIHYUN KIM

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ACADEMIC POSITIONS

West Virginia University, Morgantown, WV

Aug 2022 - Present

Assistant Professor, Department of Statistics

University of Waterloo, Waterloo, ON, Canada

Sep 2021 - July 2022

Postdoctoral Fellow, Department of Statistics and Actuarial Science

Supervisor: Greg Rice

EDUCATION

Colorado State University, Fort Collins, CO, USA

Aug 2016 - Aug 2021

Dissertation: Heavy tail analysis for functional and internet anomaly data

PhD, Statistics

Advisor: Piotr Kokoszka

Yonsei University, Seoul, S. Korea

2012

Masters of Mathematics

Yonsei University, Seoul, S. Korea

2009

Bachelor of Mathematics, Civil engineering

Research Interest

Functional data analysis, heavy tail analysis, time series, extreme value theory, extremal dependence, statistical machine learning, applications to health research.

Publications

Published

- 1. **Kim, M.**, Kokoszka, P. (2022). Asymptotic and finite sample properties of Hill-type estimators in the presence of errors in observations. *Journal of Nonparametric Statistics*, online: https://doi.org/10.1080/10485252.2022.2136662.
- 2. **Kim, M.**, Kokoszka, P. (2022). Extremal dependence measure for functional data. *Journal of Multivariate Analysis*, **189**, 104887.

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- 3. 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).
- 4. **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.
- 5. **Kim, M.**, Kokoszka, P. (2019). Hill estimator of projections of functional data on principal components. *Statistics*, **53**, 699–720.
- 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. (2023+) White noise testing for functional time series. *submitted*.
- 2. Nigg C., Nigg C., Kim M., Sharp, J., Burg, X., Cunningham-Sabo, L. (2023+) Evaluating the Association of Epoch-Length with Meeting Physical Activity Guidelines in Children. submitted.

Presentations

| Computational and Methodological Statistics, King's College London, | 2022 |
|---|------|

Invited Seminars and Presentations

Invited Presentations in Conferences/Workshops

| 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.

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Department Distinguished Service Award,

2019

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

Grants

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

TEACHING EXPERIENCE

West Virginia University

STAT 512: Statistical Methods 2

F22

University of Waterloo

STAT 220: Probability theory

W22

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 | Si | m21 |
|---|------------------|-----|
| STAT 201: General Statistics | \mathbf{S}_{1} | m21 |
| STAT 301: Introduction to Applied Statistical Methods | \mathbf{F} | 20 |
| STAA 577: Statistical Learning and Data Mining | \mathbf{S}^{2} | 19 |
| STAA 552: Generalized Regression Models | \mathbf{S}_{1} | m18 |
| | | |

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

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$Teaching\ Assistant$

| 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 | $\mathrm{Sm}17$ |
| 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 |
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SERVICE & PROFESSIONAL MEMBERSHIP

$West\ Virginia\ University$

| 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 |

Reviewer

Journal of Multivariate Analysis, Metrika

$Professional\ Membership$

Member: ASA

Computer Skills

Proficient in R, Matlab Experienced Python, C, VBA, SQL

Last updated: December 30, 2022

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