

ALEXANDER GIESSING

giessing@uw.edu

<https://agiessing.github.io>

EDUCATION

University of Michigan, Ann Arbor

2012 – 2018

Ph.D. in Statistics

Ann Arbor, Michigan, US

- Advisor: Professor Xuming He
- Thesis: “On High-Dimensional Misspecified Quantile Regression”

London School of Economics and Political Science

2011 – 2012

M.Sc. in Econometrics and Mathematical Economics (Distinction)

London, GB

- Full tuition fee scholarship for academic excellence awarded by the German National Academic Foundation

University of Bonn

2007 – 2011

B.Sc. in Economics (Distinction)

Bonn, DE

- Exchange student at the University of British Columbia during the academic year 2009/10

EMPLOYMENT

Department of Statistics, University of Washington

2021 – Present

Acting Assistant Professor

Seattle, Washington, US

Dept. of Operations Research & Financial Engineering, Princeton University

2018 – 2021

Postdoctoral Research Associate

Princeton, New Jersey, US

- Advisor: Professor Jianqing Fan

GRANTS

NSF DMS-2310578 “Semiparametric Efficient & Robust Inference on High-Dim. Data”

2023 – 2026

Principle Investigator

\$175,000

RESEARCH PAPERS

Preprints

- [1] Alexander Giessing. *Anti-concentration of suprema of Gaussian processes and Gaussian order statistics*. 2023.
- [2] Alexander Giessing. *Gaussian and bootstrap approximations for suprema of empirical processes*. 2023. arXiv: 2309.01307.
- [3] Alexander Giessing. *Upper bounds on suprema of empirical processes via generic chaining*. 2023.
- [4] Alexander Giessing and Jianqing Fan. *A bootstrap hypothesis test for high-dimensional mean vectors*. 2023. arXiv: 2309.01254.
- [5] Yikun Zhang, Alexander Giessing, and Yen-Chi Chen. *Efficient Inference on High-Dimensional Linear Models with Missing Outcomes*. 2023. arXiv: 2309.06429.

- [6] Alexander Giessing and Jianqing Fan. *Bootstrapping ℓ_p -Statistics in High Dimensions*. 2020. arXiv: 2006.13099.

Journal Publications and Conference Proceedings

- [1] Alexander Giessing and Jingshen Wang. “Debiased inference on heterogeneous quantile treatment effects with regression rank-scores”. In: *Journal of the Royal Statistical Society, Series B (Statistical Methodology)* (2023).
- [2] Alexander Giessing and Xuming He. “On the predictive risk in misspecified quantile regression”. In: *Journal of Econometrics* 213.1 (2019), pp. 235–260.
- [3] Bara Alsalaheen, Kayla Stockdale, Dana Pechumer, Alexander Giessing, Xuming He, and Steven P. Broglio. “Cumulative Effects of Concussion History on Baseline Computerized Neurocognitive Test Scores: Systematic Review and Meta-analysis”. In: *Sports Health* 9.4 (2017), pp. 324–332.
- [4] Kristjan Greenewald, Seyoung Park, Shuheng Zhou, and Alexander Giessing. “Time-dependent spatially varying graphical models, with application to brain fMRI data analysis”. In: *Advances in Neural Information Processing Systems*. Ed. by I. Guyon, U. Von Luxburg, S. Bengio, H. Wallach, R. Fergus, S. Vishwanathan, and R. Garnett. Vol. 30. Curran Associates, Inc., 2017.
- [5] Edward L. Ionides, Alexander Giessing, Ya’acov Ritov, and Scott E. Page. “Response to the ASA’s Statement on p-Values: Context, Process, and Purpose”. In: *The American Statistician* 71.1 (2017), pp. 88–89.

TALKS & PRESENTATIONS

2023 Joint Statistical Meetings <i>Toronto, CA</i>	August 2023 <i>Session speaker</i>
2023 ICSA Applied Statistics Symposium <i>Ann Arbor, Michigan, US</i>	June 2023 <i>Session speaker</i>
University College London <i>Department of Statistics</i>	November 2022 <i>Seminar speaker</i>
COMPSTAT 2022 <i>Bologna, IT</i>	August 2022 <i>Session speaker</i>
2022 Joint Statistical Meetings <i>Washington, D.C., US</i>	August 2022 <i>Session speaker</i>
22nd Meeting of New Researchers in Statistics and Probability <i>Fairfax, Virginia, US</i>	August 2022 <i>Session speaker</i>
2022 ICSA Applied Statistics Symposium <i>Gainesville, Florida, US</i>	June 2022 <i>Session speaker</i>
University of Washington <i>Department of Biostatistics</i>	January 2022 <i>Seminar speaker</i>
CMStatistics 2019 <i>London, GB</i>	December 2019 <i>Session speaker</i>
2018 International Conference on Data Science <i>Shanghai, CN</i>	December 2018 <i>Session speaker</i>

TEACHING

STAT 591: Gaussian & Empirical Process Theory for High-Dim. Data

Special Topics Graduate Course, Spring 2023

University of Washington

Department of Statistics

- Network-wide graduate course at the Pacific Institute for the Mathematical Sciences (PIMS)

STAT 516: Stochastic Modeling of Scientific Data I

Graduate Course, Fall 2023

University of Washington

Department of Statistics

STAT/ MATH 394: Probability I

Undergraduate Course, Spring 2022

University of Washington

Department of Statistics

STAT 390: Statistical Methods in Engineering and Science

Undergraduate Course, Fall '21, '22, '23; Winter '22, '23; Spring '22, '23

University of Washington

Department of Statistics

ORF 245: Fundamentals of Statistics

Undergraduate Course, Spring 2019

Princeton University

Dept. of Operations Research & Financial Engineering

Lectures on Empirical Process Theory

Short Course, December 2018

Nankai University

School of Statistics and Data Science

SERVICE

Doctoral Student Supervision

- Yikun Zhang (co-advised with Yen-Chi Chen), Dept. of Statistics, University of Washington, 2022 – Present

Master Student Supervision

- Wenjie Guan, Dept. of Statistics, University of Washington, 2023 – Present

Department of Statistics, University of Washington

- Graduate Admissions Committee for Master's Program, 2021/22, 2022/23, 2023/24
- PhD Prelim Exam Mentor, 2021/22, 2022/23, 2023/24
- Diversity, Equity & Inclusion Committee, 2022/23, 2023/24
- Popular Science Lecture at UW Math Day, March 2023

Department of Statistics, University of Michigan, Ann Arbor

- Mentor for the Undergraduate Research Opportunity Program, Summer 2016
- Organizer of the Graduate Student Seminar Series, 2014/15

Professional

- Treasurer of the ASA Nonparametric Section, 2022/23
- Secretary-elect of the ASA Nonparametric Section, 2023/24

Ad-hoc Reviewer

- Annals of Statistics
- Journal of the Royal Statistical Society: Series B (Statistical Methodology)
- Journal of the American Statistical Association
- Journal of Machine Learning Research
- Bernoulli
- Journal of Econometrics
- Statistica Sinica

- Biometrika
- Electronic Journal of Statistics
- Statistics & Probability Letters
- Journal of Nonparametric Statistics
- Journal of Computational and Graphical Statistics
- Computational Statistics and Data Analysis
- Statistical Methods in Medical Research
- The Tenth International Conference on Learning Representations (ICLR 2022)
- The Twelfth International Conference on Learning Representations (ICLR 2024)
- Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS 2020)
- Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS 2021)
- Thirty-sevens Conference on Neural Information Processing Systems (NeurIPS 2023)

PROFESSIONAL MEMBERSHIPS

American Statistical Association

ACADEMIC AWARDS & SCHOLARSHIPS

Scholar of the German National Academic Foundation 2007 – 2013

Studienstiftung des deutschen Volkes

- Statutory Mission: *“To support the university education of young people who, on account of their exceptional academic or artistic talents and their personalities, can be expected to make an outstanding contribution to society as a whole.”*

Zempelin Scholarship 2012

Studienstiftung des deutschen Volkes

€10,000

- Awarded to support post graduate studies in a PhD program in the US

Graduate Scholarship 2011

Studienstiftung des deutschen Volkes

- Full tuition fee scholarship and cost of living stipend for pursuing post graduate studies in GB

Hölderlin Scholarship 2009

Studienstiftung des deutschen Volkes

€7,500

- Awarded for the purpose of pursuing undergraduate studies in North America

PERSONAL

Nationality

German

Languages

- English (fluent)
- German (native)
- Spanish (elementary)
- French (elementary)

September 13, 2023