

# ALEXANDER GIESSING

giessing@uw.edu

<https://agiessing.github.io>

## EDUCATION

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**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

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**Acting Assistant Professor**

2021 – Present

*Department of Statistics, University of Washington*

*Seattle, Washington, US*

**Postdoctoral Research Associate**

2018 – 2021

*Dept. of Operations Research & Financial Engineering, Princeton University*

*Princeton, New Jersey, US*

- Advisor: Professor Jianqing Fan

## GRANTS

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

2023 – 2026

*Principle Investigator*

*\$175,000*

## RESEARCH PAPERS

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### Preprints

- [1] Alexander Giessing. “Anti-concentration of suprema of Gaussian processes and Gaussian order statistics”. In: Working Paper (2023).
- [2] Alexander Giessing. “Gaussian and bootstrap approximations for suprema of empirical processes”. In: Working Paper (2023).
- [3] Alexander Giessing. “Upper bounds on suprema of empirical processes via generic chaining”. In: Working Paper (2023).
- [4] Alexander Giessing and Jianqing Fan. “A bootstrap hypothesis test for high-dimensional mean vectors”. In: Working Paper (2023).

- [5] Alexander Giessing and Jianqing Fan. “Bootstrapping  $\ell_p$ -statistics in high dimensions”. In: Under review (2020).

### 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 et al. “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 et al. “Time-dependent spatially varying graphical models, with application to brain fMRI data analysis”. In: *Advances in Neural Information Processing Systems*. Ed. by I. Guyon et al. Vol. 30. Curran Associates, Inc., 2017.
- [5] Edward L. Ionides et al. “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

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

### TEACHING

<b>STAT 591: Gaussian &amp; Empirical Process Theory for High-Dim. Data</b> <i>Special Topics Graduate Course, Spring 2023</i>	University of Washington <i>Department of Statistics</i>
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**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**

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**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
- 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)
- 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

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American Statistical Association

## ACADEMIC AWARDS & SCHOLARSHIPS

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### **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 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 graduate studies in GB

### **Hölderlin Scholarship**

2009

*Studienstiftung des deutschen Volkes*

€7,500

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