

Jakob R. Juergens

jrjuergens@wisc.edu jakobjuergens.com **GitHub:** JakobJuergens **ORCID:** 0009-0003-6792-2472

Education

Ph.D.	Economics	UNIVERSITY OF WISCONSIN – MADISON	2022 – Present
M.Sc.	Economics	UNIVERSITY OF WISCONSIN – MADISON	2022 – 2024
M.Sc.	Economics	UNIVERSITY OF BONN	2020 – 2022
B.Sc.	Economics	UNIVERSITY OF BONN	2017 – 2020

Work in Progress

Jackknife Variance Estimation for Hájek-Dominated Generalized U-Statistics [arXiv:2509.12356](#)

We prove ratio-consistency of the jackknife variance estimator, and certain variants, for a broad class of generalized U-statistics whose variance is asymptotically dominated by their Hájek projection, with the classical fixed-order case recovered as a special instance. As an illustration, we apply our result to the two-scale distributional nearest-neighbor regression estimator, obtaining consistent variance estimates under substantially weaker conditions than previously required.

Causal Inference with Generalized U-Statistics

In this project, I focus on the estimation of causal parameters using generalized U-Statistics in the presence of functional nuisance parameters and develop asymptotically valid inference procedures. At the moment, my attention is focused on bagged nearest-neighbor estimators due to their conceptual similarity to random forests.

Research Experience

Research Assistant	UNIVERSITY OF WISCONSIN – MADISON	Sep 2024 – Present
<ul style="list-style-type: none"> • Work for Jack Porter in a project on asymptotic theory for batched bandits 		
Project Assistant	UNIVERSITY OF WISCONSIN – MADISON	Jun 2023 – Aug 2023
<ul style="list-style-type: none"> • Work for Jack Porter in projects on asymptotic theory for batched bandits and inference in instrumental variable models with weak instruments 		
Research Assistant	UNIVERSITY OF BONN	Nov 2020 – Jun 2022
<ul style="list-style-type: none"> • Programming in R and C++ for Joachim Freyberger and Lena Janys • Research position created by the Department of Economics as part of the <i>German Excellence Strategy for Research</i> 		
Internship	GERMAN COUNCIL OF ECONOMIC EXPERTS	Aug 2020 – Oct 2020
<ul style="list-style-type: none"> • Work for the Business Cycle Analysis and Monetary Policy Teams • GDP Forecasting with data of varying frequency and publication lag 		
Student Assistant	UNIVERSITY OF BONN	Apr 2018 – Jun 2020
<ul style="list-style-type: none"> • Scientific and administrative assistant of Jürgen von Hagen 		

Teaching Experience

Teaching Assistant	Introductory Econometrics	Spring 2024
• Teaching Assistant for Christopher McKelvey		
Teaching Assistant	Mathematical Economics (PhD Math Camp)	Fall 2023
• Teaching Assistant for John Kennan in a PhD-level class		
• Winner of the Juli Plant Grainger Teaching Excellence Scholarship		






Conference and Seminar Presentations

New York Camp Econometrics XIX (Poster Session)	SYRACUSE UNIVERSITY	2025
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Awards and Scholarships

Student Research Grants - Conference Presentation	UW – MADISON	2025
Juli Plant Grainger Teaching Excellence Scholarship	UW – MADISON	Fall 2023
Two-year Graduate School Fellowship	UW – MADISON	2022
Scholarship	GERMAN ACADEMIC SCHOLARSHIP FOUNDATION	2016 – 2024
• Scholarship Representative for Bonn (2020 – 2021)		
Honors Program	UNIVERSITY OF BONN	2019 – 2022

Other Projects

Co-Organizer: Ph.D. Student Reading Group – Econometrics	
Master's Thesis: Bugni and Horowitz (2021) Permutation Tests for the Equality of Distributions of Functional Data	Repo 
Course Project: Basis Choice for Scalar-on-Function Regression with Applications to Near-Infrared Spectroscopy	Repo 
Course Project: Outlier Detection in Sensor Data using Functional Depth Measures	Repo 
Course Project: Comparison of Variable Importance Feature Selection Methods in Continuous Response Random Forest	Repo 
Bachelor's Thesis: Malicious Intent and Multiple Testing in Regression Discontinuity Estimation	PDF 

Citizenship and Languages

Citizenship	German
Languages	German (native) English (fluent) French (intermediate) Mandarin (beginner)