

Markus Mueller

Education

ECONOMETRIC INSTITUTE, ERASMUS UNIVERSITY ROTTERDAM

PhD candidate working on probabilistic machine learning in Econometrics, since Sept 2022

Supervisors: Dennis Fok, Richard Paap, Kathrin Gruber

BUSINESS DATA SCIENCE / TINBERGEN INSTITUTE

Joint research master programme of the Erasmus University Rotterdam, Vrije Universiteit Amsterdam and the University of Amsterdam

MPhil Business Data Science, with distinction, 2022

UNIVERSITY OF WARWICK

MSc Economics, with distinction, 2018

UNIVERSITY OF STRATHCLYDE

BA (Hons.) Economics, first-class honours (best in cohort), 2017

Employment

ERASMUS UNIVERSITY ROTTERDAM, BUSINESS ECONOMICS DEPARTMENT

Research assistant for Bas Donkers, Sept - Dec 2021

UNIVERSITY OF POTSDAM, CHAIR OF EMPIRICAL ECONOMICS

Full-time research and teaching assistant for Marco Caliendo, 2019/20

UNIVERSITY OF WARWICK, DEPARTMENT OF ECONOMICS

Research assistant for Roland Rathelot, 2018

Research

Ongoing

Mueller, M. (2024) Cascaded flow matching for tabular data.

Mueller, M., Gruber, K. and Fok, D. (2024) Diffusion-based synthetic control for causal inference.

Mueller, M., Gruber, K. and Fok, D. (2023) Continuous Diffusion for Mixed-Type Tabular Data. arxiv.org/abs/2312.10431.

Holstege, F. and Mueller, M. (2023) Diffusion-based Design of Monte Carlo Simulations.

Unpublished

Mueller, M. (2022) Leakage in Adversarial Debiasing as a Consequence of a Multi-Directional Bias in Weight Space. *Research Master thesis*, Grade: 9.0/10 (best thesis in cohort), Supervisor: Bas Donkers.

Mueller, M. (2018) Estimating Anticipation and Treatment Effects of Training the Unemployed in France. *Master thesis*, Grade: 82% (one of the top 10 theses in cohort), Supervisor: Roland Rathelot.

Mueller, M. (2017) An Application of Econometric Methods for the Estimation of Causal Effects in Labour Economics. *Bachelor thesis*, Grade: 90% (best thesis in cohort), Supervisor: Eduardo Fé.

Teaching

ERASMUS UNIVERSITY ROTTERDAM

Machine Learning (postgraduate), Machine Learning in Finance (postgraduate), Data Science in Context (postgraduate), Machine Learning Seminar (undergraduate), Academic Writing (undergraduate)

Bachelor thesis supervision (topics including: transformer-based models for tabular data, missing value imputation, uncertainty quantification)

BUSINESS DATA SCIENCE / TINBERGEN INSTITUTE

Unsupervised Machine Learning (research master), Supervised Machine Learning (research master), Statistics (research master)

UNIVERSITY OF POTSDAM

Machine Learning and Economics (postgraduate), Statistics (undergraduate, online), Advanced Microeconometrics (postgraduate), Applied Public Policy Evaluation (postgraduate)

Professional Services

Joint Organizer: Econometric PhD Internal Conference, Erasmus University Rotterdam, 2025

Reviewer: AAAI Good-Data Workshop, 2025

Joint Organizer: 6th Ph.D. Workshop on Empirical Economics, University of Potsdam, 2019

Joint Organizer: Lecture Series on Causal Inference and Machine Learning by Guido W. Imbens, University of Potsdam, 2019

Talks/Presentations

Invited talk: Cambridge Center for AI in Medicine Seminar, 2024

NeurIPS Workshop on Synthetic Data Generation with Generative AI, Poster, 2023

Erasmus Center for Data Analytic Insights Social AI seminar, 2023

Research Group Seminar (Statistics and Computer Science) at the Econometric Institute of the Erasmus University Rotterdam, 2022, 2023

PhD Lunch Seminar, Erasmus School of Economics, Erasmus University Rotterdam, 2022

Selected Honors

One of the top 5 submissions to the MOSTLY AI prize (challenge of generating the most realistic, yet private synthetic tabular data) that made it to the final round, 2025

Full Scholarship (merit-based) for MPhil Business Data Science, 2021

Partial Scholarship for MPhil Business Data Science, 2020

Top 10 Dissertation Award, Department of Economics, University of Warwick, 2018

Sir Charles Carter Prize for outstanding performance (highest average grade in cohort), University of Strathclyde, 2017

Department of Economics Prize for the best dissertation in Economics, University of Strathclyde, 2017

Grants

NWO/SURF EINF grant (~ 16 000 Euros) for computing resources (reference code: EINF-7437)

ERIM funding of travel costs (1 500 Euros)

Summer Schools and Workshops

Cambridge ELLIS Unit Summer School on Probabilistic Machine Learning, 2023

Workshop on *Bayesian Conjoint Analysis* by Thomas Otter, 2021

Summer school on *Artificial Intelligence without Bias* by the NoBIAS Research Group, 2021

Workshop on *Machine Learning - An Applied Econometric Approach* by Jann Spiess, 2019

Last updated: October, 2025