

Max Welz

PhD Candidate in Econometrics and Statistics
Erasmus University Rotterdam

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🌐 <https://mwelz.github.io>

🔗 [mwelz](#)

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Research Interests

Econometric methods for discrete data, machine learning in social and health sciences, robust and high-dimensional statistics, development of statistical software.

Affiliations

Erasmus University, Dept. of Econometrics

PhD Candidate

Supervisors: Prof. Patrick Groenen and Dr. Andreas Alfons

Rotterdam, NL

2020 – 2025 (expected)

Massachusetts Institute of Technology

Visiting PhD Student

Invited by Prof. Victor Chernozhukov and Dr. Mert Demirer

Cambridge, MA, USA

Fall 2023

Erasmus Medical Center, Dept. of Public Health

Researcher

- Master thesis on causal inference in lung cancer research
- Involvement in analyses of medical trials

Rotterdam, NL

Since 2019

Erasmus University, Dept. of Econometrics

Research Assistant

Assisted Prof. Philip Hans Franses for 10 hours a week

Rotterdam, NL

2018 – 2019

Education

Erasmus University

MSc Econometrics

Rotterdam, NL

2017 – 2020

University of Mannheim

BSc Economics (specialization in Econometrics)

Spent Fall 2016 at the Erasmus University in Rotterdam, NL

Mannheim, DE

2014 – 2017

Grants and Awards

Grants

- *Open Mind Call 2021 Health and Technology* (€19,995.70)
 - Joint with Andreas Alfons (Erasmus University) and Kevin ten Haaf (Erasmus MC);
 - Issued by the Dutch [Convergence Alliance](#) (acceptance rate of 22/124 \approx 18%)
 - Awarded for the [CITRUS](#) project

Awards

- *2021 Convergence Health and Technology Open Research Award* [[link](#)]
 - Awarded for “great commitment to open research”
 - Issued by the Dutch [Convergence Alliance](#) and several open science initiatives
 - One of 12 recipients from various Dutch scientific institutions

- *Best PhD Student Presentation* at the Annual Meeting of the Dutch/Flemish Classification Society on October 14, 2022, in Tilburg, Netherlands

Publications

Working Papers

Welz, M. and Alfons, A. *I don't care anymore: Identifying the onset of careless responding*. 2023. In preparation for submission. [[Preprint](#) | [GitHub](#)]

Bergh, D., Gallegos Quezada, J., Moelijker, R., Tang, Y., & Welz, M. *Matched samples in strategic management research: Review and recommendations*. 2023. Submitted.

Alfons, A. and Welz, M. *Open Science Perspectives on Machine Learning for the Identification of Careless Responding: A New Hope or Phantom Menace?* 2022. Revise and resubmit. [[Preprint](#) | [GitHub](#)]

Articles in Peer-Reviewed Journals

Franses, P. H. and Welz, M. Evaluating heterogeneous forecasts for vintages of macroeconomic variables. *Journal of Forecasting*, 41(4), 829–839, 2022. [[Paper](#) | [GitHub](#)]

Franses, P. H. and Welz, M. Forecasting real GDP growth for Africa. *Econometrics*, 10(1):3, 2022. [[Paper](#) | [GitHub](#)]

Software

Welz, M., Alfons, A., Demirer, M., & Chernozhukov, V. *GenericML: Generic machine learning inference*. R package. [[GitHub](#) | [CRAN](#)]

Welz, M., ten Haaf, K., & Alfons, A. *predmod: Predictive modeling for heterogeneous treatment effects in medicine*. R package. [[GitHub](#)]

Work in Progress

Welz, M., Archimbaud, A.A., & Alfons, A. *Quantifying effects of rating-scale response bias: Theory and implications for survey design*. Draft available upon request.

Academic Events

Selective Workshops

- Alfred Galichon's 'math+econ+code' masterclass on optimal transport and economic applications, January 23–27, 2023 (online)

Conference Presentations

- International Workshop on Psychometric Computing (Psychoco), June 8–9, Zurich, Switzerland
- International Conference on Robust Statistics, May 23–26, 2023, Toulouse, France
- CMStatistics, December 16–19, 2022, London, UK (invited)
- Conference of the Dutch/Flemish Classification Society, October 14, 2022, Tilburg, Netherlands
- International Conference on Robust Statistics, July 5–8, 2022, Waterloo, ON, Canada
- Society for the Improvement of Psychological Science, June 27–29, 2022, Victoria, BC, Canada
- useR! 2022, June 20–23, 2022 (online, also session chair)
- International Conference on Robust Statistics, September 21–24, 2021, Vienna, Austria (also session chair)

Seminar Presentations

- Econometric Institute Internal Seminar, April 25, 2023, Erasmus University Rotterdam (EUR)

- Seminar at the *Department of Methodology and Statistics*, April 4, 2023, Tilburg University (invited)
- Brown Bag PhD Seminar, March 22, 2023, EUR
- Research Group Statistics, March 21, 2023, EUR
- Social AI Seminar, June 16, 2022, EUR
- Tinbergen Institute PhD Seminar, October 21, 2021, University of Amsterdam (online)
- Econometric Institute Internal Seminar, October 5, 2021, EUR (online)
- Research Group Statistics, June 22, 2021, EUR (online)
- Econometric Institute Internal Seminar, July 21, 2020, EUR (online)

Miscellaneous Presentations and Outreach

- Lecture to econometrics undergraduate students about econometrics in the health sciences. Invited by the econometrics study association at Erasmus University ([FAECTOR](#)). March 15, 2023.
- Various Presentations in the reading group "*High-dimensional statistics*" at the Department of Econometrics at Erasmus University as core member. Since February 2023.
- Various Presentations in the reading group "[Mathematical Statistics](#)" at the math department of TU Delft. Since November 2021.

Organization Service

Local Organization Committee

- [Data Science, Statistics & Visualization and European Conference on Data Analytics 2021](#) (joint conference). July 7–9, 2021. Erasmus University Rotterdam, NL (online)
- [Data Science, Statistics & Visualization 2020](#). July 29–31, 2020. Duke University, USA (online)

Teaching

Erasmus University Rotterdam

- [FEB23020](#): *Seminar in Machine Learning* (2022; undergraduate). Role: Teacher.
- [FEM31002X](#): *Machine Learning* (2022; graduate). Role: Teacher
- [FEB22015X](#): *Academic Skills (Econometrics)* (2020, 2021; undergraduate). Role: Teacher.
- [FEB23012](#): *Seminar in Econometrics* (2020, 2021; undergraduate). Role: Teacher.
- [FEB21018X](#): *Introduction to Statistics* (2020; undergraduate). Role: Tech support for online teaching.
- [FEB2003X](#): *Introduction to Multivariate Statistics* (2019; undergraduate). Role: Teacher.
- Thesis supervision:
 - 22 student theses for *BSc Econometrics* (8 as main supervisor)
 - 4 student theses for *MSc Econometrics* (all as second assessor)

More information such as teaching evaluations can be found on my [teaching webpage](#).

Scientific Organizations

I am a member of the following organizations:

- [Institute of Mathematical Statistics](#)
- [International Association for Statistical Computing](#)
- [Open Science Community Rotterdam](#)

Skills

Software: C, C++, Java, Julia, L^AT_EX, Matlab, Python, R, Stata, Bash, Zsh, Windows, macOS, Linux (e.g. Ubuntu, Fedora)

Human languages: German (native), English (fluent), Dutch (fluent), French (intermediate)

References

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Chen Zhou

Professor of Mathematical Statistics
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