

Max Welz

PhD Candidate in Econometrics and Statistics
Erasmus University Rotterdam

✉ welz@ese.eur.nl

🌐 <https://mwelz.github.io>

🔗 [mwelz](#)

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Research Interests

Econometric methods for survey 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 Researcher

Invited by Prof. Victor Chernozhukov

Cambridge, MA, USA

Fall 2023 (*scheduled*)

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, NL

Publications

Working Papers

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

Alfons, A. and Welz, M. *Open Science Perspectives on Machine Learning for the Identification of Careless Responding: A New Hope or Phantom Menace?* 2022. [[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.

Welz, M., van der Aalst, C.M., Alfons, A., Naghi, A., Oudkerk, M., de Koning, H.J., & ten Haaf, K. *Heterogeneity in lung cancer screening effectiveness: A comparative modeling analysis of two randomized controlled trials*. In preparation for submission.

Bergh, D., Gallegos Quezada, J., Moelijker, R., Tang, Y., & Welz, M. *Matching in management research: Overview, recommendations, and guidelines*. In preparation for submission.

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 Conference on Robust Statistics, May 23–26, 2023, Toulouse, France (invited)
- 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; scheduled)
- Brown Bag PhD Seminar, March 22, 2023, EUR
- Research Group Statistics, March 21, 2023, EUR
- Seminar at the *Department of Methodology and Statistics*, April 4, 2023, Tilburg University (invited & scheduled)
- 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 "[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

Patrick Groenen

Professor of Statistics
Dept. of Econometrics
Erasmus University

✉ groenen@ese.eur.nl

Andreas Alfons

Associate Professor of Statistics
Dept. of Econometrics
Erasmus University

✉ alfons@ese.eur.nl

Chen Zhou

Professor of Mathematical Statistics
Dept. of Econometrics
Erasmus University

✉ zhou@ese.eur.nl