Max Welz

PhD Candidate in Statistics – Erasmus University – Rotterdam, NL

✉ welz@ese.eur.nl   🌐 https://mwelz.github.io   ⌂ mwelz

Employment

Erasmus University, Dept. of Econometrics   **Rotterdam, NL**
PhD Candidate in Statistics   *Since May 2020*
Supervisors: Prof. Patrick Groenen and Dr. Andreas Alfons.

Erasmus Medical Center, Dept. of Public Health   **Rotterdam, NL**
External Researcher   *Since Jun. 2019*
- Master thesis on causal inference in lung cancer research.
- Involvement in analyses of medical trials.

Erasmus University, Dept. of Econometrics   **Rotterdam, NL**
Research Assistant   *Aug. 2018 – Nov. 2019*
Assisted Prof. Philip Hans Franses for 10 hours a week.

Education

Erasmus University   **Rotterdam, NL**
MSc Econometrics   *Aug. 2017 – Apr. 2020*
University of Mannheim   **Mannheim, DE**
BSc Economics (specialization in Econometrics)   *Sep. 2014 – Jul. 2017*
Spent Fall 2016 at the Erasmus University in Rotterdam, NL.

Research Interests

- Robust statistics (robust inference in non-continuous data);
- Mathematical statistics (empirical process theory and high-dimensional models);
- Computational statistics (algorithms for robust inference in large data sets);
- Statistical applications in medicine, psychology, and economics.

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.

Presentations

Conference presentations:
   Welz, M. and Alfons, A. *Outlier Detection in Rating-Scale Data via Autoencoders.* International Conference on Robust Statistics, September 21–24, 2021, Vienna, Austria (scheduled).

Seminars:
   Welz, M. and ten Haaf, K. *Evidence-Based Medicine Meets Causal Inference.* Econometric Institute Internal Seminar, July 21, 2020, Rotterdam, The Netherlands.

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:
- FEB22015X: *Academic Skills* (*Econometrics*). Role: Teacher. Spring 2021 (online).
- FEB23012: *Seminar in Econometrics*. Role: Group supervisor. Spring 2021 (online)
- FEB21018X: *Introduction to Statistics*. Role: Tech support. Fall 2020 (online).
- FEB2003X: *Introduction to Multivariate Statistics.* Role: Teacher. Fall 2019.
- Main supervisor of 5 bachelor theses.
- Second assessor of 5 bachelor theses and 2 master theses.

More information such as teaching evaluations can be found on my teaching webpage.

Scientific Organizations

- Member of the *Institute of Mathematical Statistics*.
- Member of the *International Association for Statistical Computing*.

Software

- **GenericML** (mwelz/GenericML). R implementation of *Generic Machine Learning Inference*.

Relevant Skills

Software skills:
- Operating systems: Windows, macOS, several Linux distributions (e.g. Ubuntu, Fedora).
- Tools/languages: Bash, C/C++, Git/GitHub, Java, Julia, LaTeX, Matlab, Python, R, Stata.

Human languages: German (native), English (fluent), Dutch (advanced), French (beginner).

References

Patrick Groenen	**Andreas Alfons**	**Philip Hans Franses**
Professor of Statistics	Associate Professor of Statistics	Professor of Applied Econometrics
Dept. of Econometrics	Dept. of Econometrics	Dept. of Econometrics
Erasmus University	Erasmus University	Erasmus University
✉ groenen@ese.eur.nl	✉ alfons@ese.eur.nl	✉ franses@ese.eur.nl

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