Jun Wu

Curriculum Vitae

wujun3544@gmail.com

Education

10/2019 – 09/2023 **Dr. rer. nat.**, *supervised by Prof. Mathias Drton*
Statistics Research Group, Technical University of Munich, Germany

- Dissertation "Homoscedasticity and feedback loops in graphical models"
- Data Science program, TUM Executive & Professional Education, 06/2022 - 07/2022
- Github: https://github.com/wjmoss

09/2016 – 01/2019 **M.Sc. in Mathematics**
ETH Zurich, Switzerland

- Specialization in statistics

09/2012 – 07/2016 **B.Sc. in Mathematics and Applied Mathematics**
Zhejiang University, China

Professional Experience

10/2019 – 09/2023 **Research Assistant and Teaching Assistant**
Statistics Research Group, Technical University of Munich, Germany

- Member of the European Research Council Grant team for the project "Graphical Models for Complex Multivariate Data" (ID 883818)

11/2018 – 12/2018 **Hilfassistent**
Seminar for Statistics, ETH Zurich, Switzerland

Publications and Preprints

- Structure learning for cyclic linear causal models, with Carlos Améndola, Philipp Dettling, Mathias Drton, Federica Onori; *Proceedings of the 36th Conference on Uncertainty in Artificial Intelligence (UAI)*, PMLR 124:999-1008, 2020; `https://proceedings.mlr.press/v124/amendola20a.html`
- Identifiability of homoscedastic linear structural equation models using algebraic matroids, with Mathias Drton, Benjamin Hollering; `https://arxiv.org/abs/2308.01821`
- Partial homoscedasticity in causal discovery with linear models, with Mathias Drton; *IEEE Journal on Selected Areas in Information Theory*, vol. 4, pp. 639-650, 2023; `https://ieeexplore.ieee.org/document/10304270`

Teaching

Teaching assistant

- Mathematics 1 (TUM-BWL); WS 2019/20, WS 2021/22
- Graphical Models in Statistics; SS 2021
- Fundamentals of Mathematical Statistics; WS 2020/21, WS 2022/23
- Statistics for Business Administration (with Introduction to R); SS 2020, SS 2022, SS 2023

Supervisions

- TUM Data Innovation Lab project co-mentor: Prediction and clustering critical suppliers
- Master thesis supervision: Applying double machine learning and BART methods to the American Causal Inference Conference 2022 Data Challenge
- Master thesis supervision: Partial homoscedasticity in graphical models

Talks

- Identifiability of cyclic linear SEMs via algebraic matroids, 18. Doktorand:innentreffen der Stochastik 2023. Heidelberg University; Aug 23, 2023
- Identifiability of linear structural equation models with homoscedastic errors using algebraic matroids, German Probabiliy and Statistics Day. University of Duisburg-Essen; Mar 8, 2023
- Partial homoscedasticity in causal discovery with linear models, ETH-UCPH-TUM Workshop on Graphical Models. Academy center TUM Raitenhaslach; Oct 12, 2022
- Identifiability of linear structural equation models under homoscedastic errors using algebraic matroids, 10th World Congress in Probability and Statistics. Online; Jul 21, 2021
- Structure learning for cyclic linear causal models, 36th Conference on Uncertainty in Artificial Intelligence. Online; Aug 5, 2020

Skills

Software

- Use of LaTeX and Mathematica in research
- Use of R (Rstudio) for statistical computing since bachelor university
- Experience with Python (PyCharm) on graphical model and causal inference methods
- A little experience with Macaulay2

General IT Skills

- SQL as part of master curriculum
- Operating system: experience with Windows and Linux in research
- Version control: use of Git

Languages

- German – completed a B1.1 level course in 2023
- English – C1, my master education and the working language during my employment at TU Munich has been English