

# DR. JOHANNES BLEHER

YEAR OF BIRTH 1988  
MARITAL STATUS Married to Malin Bleher  
CHILDREN Jakob (\*2016), Mattheus (\*2018), Esther (\*2021) and Henrietta (\*2025)  
CITIZENSHIP German  
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## ACADEMIC QUALIFICATIONS

February 2021 Doctoral Degree in Finance (Dr. rer. pol.) (summa cum laude)  
Eberhard Karls University, Tübingen, Germany (very good)  
September 2016 Master of Science in Economics and Finance  
Eberhard Karls University, Tübingen, Germany  
February 2012 Bachelor of Science in International Economics and European Studies (good)  
Eberhard Karls University, Tübingen, Germany

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## PROFESSIONAL EXPERIENCE

04/2025 – today Lecturer (Akademischer Rat),  
University of Hohenheim, Stuttgart, Germany  
03/2022 – today Independent Business Consultant  
10/2023 – 03/2025 Manager of the Computational Science Hub,  
University of Hohenheim, Stuttgart, Germany  
04/2022 – 03/2025 Project Coordinator for the AI & Data Science Certificate,  
University of Hohenheim, Stuttgart, Germany  
03/2020-03/2022 Risk Analyst at Bausparkasse Schwäbisch Hall AG, Schwäbisch Hall, Germany  
04/2020-09/2021 Research Assistant in the DFG funded project on “Robust estimation of  
time-varying moments, mutual information, and transfer entropy by means of  
quantile regression based density forecasts”, Faculty of Economics and Social  
Sciences at the Eberhard Karls University, Tübingen, Germany  
04/2017-03/2020 Research Assistant at the Chair of Statistics, Econometrics and Empirical  
Economics, Faculty of Economics and Social Sciences at the Eberhard Karls  
University, Tübingen, Germany

12/2016-02/2020	Project Coordinator for the projects “Strukturmodelle – Initiationswege in die Wissenschaft” and the follow-up project “Studienstart” at the Deanery of the Faculty of Economics and Social Sciences at the Eberhard Karls University, Tübingen, Germany
11/2014-12/2016	Student Assistant at the Chair of Statistics, Econometrics and Empirical Economics, Faculty of Economics and Social Sciences at the Eberhard Karls University, Tübingen, Germany
10/2014-12/2016	Local Assistant to MEP Dr. Inge Gräßle
03/2012-09/2014	Accredited Parliamentary Assistant to MEP Dr. Inge Gräßle, Brussels and Strasbourg, Belgium and France
10/2010-02/2012	Student Assistant at the Chair of Statistics, Econometrics and Empirical Economics, Faculty of Economics and Social Sciences at the Eberhard Karls University, Tübingen, Germany
04/2010-02/2012	Local Assistant to MEP Dr. Inge Gräßle, Germany
09/2009-03/2010	Internship in the parliamentary office of MEP Dr. Inge Gräßle, Brussels and Strasbourg, Belgium and France
02/2009-07/2011	Student Assistant in the PC-Lab for the Faculty of Economics and Social Sciences at the Eberhard Karls University, Tübingen, Germany

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#### PUBLICATIONS IN REFEREED JOURNALS

- [6] Metropolitan, urban, and rural regions – How regional differences affect elementary school students’ academic achievement, well-being, and motivation, 2025, AERA Open (forthcoming), (with J. Schwerter, P. Doebler and N. McElvany)
  - [5] Importance of students’ social resources for their academic achievement and well-being in elementary school, 2024, European Journal of Psychology of Education (with J. Schwerter, J. Stang-Rabrig, R. Kleinkorres, P. Döbler and N. McElvany)
  - [4] Benefits of additional online practice opportunities in higher education, 2022, *The Internet and Higher Education*, Volume 53, 100834, (with J. Schwerter, T. Dimpfl and Kou Murayama)
  - [3] Knitting Multi-Annual High-Frequency Google Trends to Predict Inflation and Consumption, 2021, *Econometrics and Statistics*, Volume 24, October 2022, Pages 1-26 (with T. Dimpfl)
  - [2] Today I got a million, tomorrow, I don’t know: On the predictability of cryptocurrencies by means of Google search volume, 2019, *International Review of Financial Analysis*, Volume 63, 147-159 (with T. Dimpfl)
  - [1] Loss of IBA1-Expression in Brains from Individuals with Obesity and Hepatic Dysfunction, 2019, *Brain Research*, Volume 1710, 220-229, (with J. Lier, K. Winter, J. Grammig, W. Müller, W. Streit, and I. Bechmann)
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#### NON REFEREED PUBLICATIONS

- [4] Weuts, R., Billones, R.K., Bleher, J., Pujso, P., Flores, R.T., Almási, Z., Guo, X., & Soh, J. (2025). White paper for universities on navigating artificial intelligence innovation ecosystems in the area of AI governance (5th ASEF Higher Education Innovation Laboratory White Paper). Asia-Europe Foundation.

- [3] Universities as catalysts: Advancing ethical and inclusive AI governance. In R. Tozsa & C. Cachapero (Eds.), ASEFINnoLab5 Publication (pp. 20-28). Asia-Europe Foundation (ASEF). (with R. T. Flores, F. Marcelloni, & R. Nowak (2024))
  - [2] Nutzung von ChatGPT in Lehre und Forschung – eine Einschätzung der AIDAHO-Projektgruppe, Januar 2023, *AIDAHO-Website* (with J. Vogelgesang, C. Krupitzer, A. Stein, & R. Jung)
  - [1] Computergestützte Methodenkompetenzvermittlung für Studienanfänger in den wirtschaftswissenschaftlichen Studiengängen, 2021, *Tübinger Beiträge zur Hochschuldidaktik*, Band 17/1 (with T. Dimpfl)
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## WORKING PAPERS

- [5] A Quantile Regression Approach to Calculating Relative Entropy Measures, 2024, available at SSRN
  - [4] Conditional Density Estimation and Hypothesis Testing through Smoothed Quantile Regression, 2024, available at SSRN
  - [3] An Algebraic Framework for the Modeling of Limit Order Books, 2024, available at arXiv (with M. Bleher)
  - [2] Density Forecasts with Local Quantile Projection and Quantile Vector Autoregression Applied to Inflation, 2024, available at SSRN (with S. Koch and T. Dimpfl)
  - [1] From orders to prices: A stochastic description of the limit order book to forecast intraday returns, 2020, available at SSRN (with M. Bleher and T. Dimpfl)
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## WORK IN PROGRESS

Forecasting with Q – Density Forecasts with Local Quantile Projection and Quantile Vector Autoregression	with S. Koch and T. Dimpfl
Using Exact Simulation of Order Book Dynamics for Bayesian Estimates of Structural Parameters	together with M. Bleher
Comparing Asset Universes with Expected Shortfall Frontiers Constructed via Quantile Regression	together with T. Dimpfl and J. Grammig
Using Symbolic Regression to Describe Order Book Dynamics	together with S. Koch, J.E. Senn, M. Bleher
A Bayesian-Frequentist Inference Approach for Post-Double Selection on Imputed and Bootstrapped Datasets	together with C. Tarrantola
Political Sentiment in German Newspapers over Time – Using LLMs to Model Political Sentiment	together with A. Reich
Fast Non-parametric Test on the Equivalence of Multivariate Empirical Distributions	with L. Sartore
Optimizing Catalysts: Machine Learning-Driven Discovery from Crystal Structure Data	together with K. Bleher and M. Bleher
FAIR Data Science (book)	together with T. Dimpfl

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## GRANTS

- 2024 Travel Grant of the Asia-Europe Foundation for participation in the 5th ASEF Higher Education Innovation Laboratory (ASEFInnoLab5) in Shanghai
- 2024 HERMES Seed Grant for joint project on 'A Bayesian-Frequentist Inference Approach for Post-Double Selection on Imputed and Bootstrapped Datasets' with C. Tarantola at University of Pavia
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## AWARDS

- 2022 Doctoral Award of the University of Tübingen for the best PhD-Thesis in the Faculty of Economics and Social Sciences
- 2021 Wolfram Award for the Best Student Poster at the Entropy 2021 Conference
- 2019 Teaching Award of the University of Tübingen (with Prof. Dr. Thomas Dimpfl and Prof. Dr. Joachim Grammig)
- 2019 WiWi Impuls - Award presented by the student body of the School of Economics and Business Administration of the University of Tübingen (with Prof. Dr. Thomas Dimpfl and Prof. Dr. Joachim Grammig)
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## INVITED TALKS

- 03/2025 *AI in Technologies: Innovations and Applications across Industries*, International Lecture Series 2025, Bukidnon State University, Philippines
- 10/2024 5th ASEF Higher Education Innovation Laboratory (InnoLab5), Shanghai, China  
*Universities as Catalysts: Advancing Ethical and Inclusive AI Governance*
- 09/2024 AI Workshop of the Institute of Functional Interfaces of the Karlsruhe Institute of Technology, Karlsruhe, Germany  
*Presentation: Building Effective Data Pipelines for Large Language Models in Chemistry*  
*Workshop: Strategies, Tools and Architecture for Reproducible Data-Driven Research Project*
- 05/2017 Econometrics Colloquium, Konstanz, Germany  
*Towards a Microscopic Stochastic Theory of the Limit Order Book – Using Quantum Techniques*
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## CONFERENCE PRESENTATIONS

- 12/2024 18th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), London, UK  
*Fast Non-parametric Test on the Equivalence of Multivariate Empirical Distributions*
- 06/2024 ASA Symposium on Data Science & Statistics, Richmond, Virginia, USA  
*Density Forecasts with Local Quantile Projection and Quantile Vector Autoregression*

- 12/2023 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023), Berlin, Germany  
*Comparing Asset Universes with Expected Shortfall Frontiers Constructed via Quantile Regression*
- 05/2023 ASA Symposium on Data Science & Statistics, St. Louis, Missouri, USA  
*Density Forecasts with Quantile Autoregression with an Application to Option Pricing*
- 05/2022 Intrinsic Time Conference, Konstanz, Germany  
*A Stochastic Description of the Limit Order Book to Forecast Intraday Returns*
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## REFEREE

Emerging Markets Finance and Trade, Research in International Business and Finance, Journal of Behavioral and Experimental Finance, Deutsche Gesellschaft für Finanzwirtschaft (Jahrestagung 2023), European Journal of Finance, Finance Research Letters, Royal Statistical Society: Series C

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## COMPUTER SKILLS

SAS, R, Python, Matlab, Gauss, Eviews, Stata, LaTeX, Shell and Batch programming (Linux and Windows), Docker, Kubernetes, Java, C++, VBA, JavaScript, React, XHTML/CSS, SQL, MS Office and Access, GIMP, KDElive, ffmpeg, sox, NGINX, Gitlab (hosting), Jupyterhub (hosting), Openstack/Openshift (incl. heat templates), Shibboleth, YAML, Arduino C, NVIDIA Rapids for GPU Computing, VS Code

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## LANGUAGE SKILLS

German	–	native
English	–	fluent
French	–	very good command

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## TEACHING

University of Hohenheim

- Einführung in die statistische Datenanalyse (ST25)
- Bachelor or Master Thesis in Business Mathematics and Data Science (ST24, WT24/25,ST25 )
- Introduction to Data Science with R and RStudio (ST23, ST24, ST25)
- Introduction to Applied Data Science (WT23/24)
- AIDAHO Tinkering Club (WT24/25, ST25)
- Applied Data Science Lab (WT23/24, WT24/25)

CSH Spring School 2024 – Reproducible Science with Containerization on High Performance Computing Infrastructure (ST24)

Tools for AI and Data Science: An Introduction to R, Python and SQL (WT22/23, ST23, WT23/24, ST24)

University of Tübingen

Mathematical Preparatory Course (WT17/18, WT18/19, WT19/20)

Practical Course for Financial Economics with SAS (WT17/18, WT19/20)

Practical Course for Financial Market Microstructure with SAS (ST15, ST16, ST17, ST19)

Using SAS in Financial Research (WT16/17)

Bachelor and Master Seminar on Empirical Economics (WT16/17, ST17, WT17/18, ST18, WT18/19, ST19 )

Tutorial for Explorative Data Analysis (WT14/15)

Computer Based Statistical Analysis (ST11)

Microsoft Excel Course (ST09, WT10/11)

Microsoft Word Course (ST10, ST11)

Microsoft Powerpoint Course (ST09, ST11)

Microsoft Office Basics (ST09, WT10/11)

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**VOLUNTARY WORK**

since 2024 Deputy Chairman of the CDU Local Association Braunsbach-Untermünkheim

since 2023 Board of trustees, Albert-Schweitzer-Kinderdorf, Waldenburg

since 2022 Active member of the Volunteer Fire Department, Untermünkheim

since 2022 Deputy Chairman of the CDU District Association Schwäbisch Hall

2022 & 2023 Driver for relief goods to Ukraine and transportation of refugees from Ukraine, Overseas Council Europa e.V.

2021 – 2024 Chairman of the CDU Local Association Braunsbach-Untermünkheim

since 2020 Staff member of the children's vacation program of the protestant church community of Untermünkheim, WebApp Development for registration and payment processing

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May 6, 2025