Dr. Johannes Bleher

Year of Birth	1988
Marital Status	Married to Malin Bleher
Children	Jakob (*2016), Mattheus (*2018) and Esther (*2021)
Citizenship	German
Address	Am Mühlberg 29
	74547 Untermünkheim, Germany
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Email	Johannes.Bleher@googlemail.com

Academic Qualifications

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

Professional Experience

10/2023 – today	Manager of the Computational Science Hub, University of Hohenheim, Stuttgart, Germany
04/2022 – today	Project Coordinator for the AI & Data Science Certificate, University of Hohenheim, Stuttgart, Germany
03/2022 – today	Independent Business Consultant (WebApp Development and Portfolio Allocation)
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 – Initationswege in die Wissenschaft" and the follow-up project "Studienstart" at the Deanary of the Faculty of Economics and Social Sciences at the Eberhard Karls University, Tübingen, Germany

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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

Publications in Refereed Journals

[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)

Non Refereed Publications

[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)

Working Papers

[7] A Quantile Regression Approach to Calculating Relative Entropy Measures, 2024, available at SSRN

[6] Conditional Density Estimation and Hypothesis Testing through Smoothed Quantile Regression, 2024, available at SSRN

[5] Universities as Catalysts: Advancing Ethical and Inclusive AI Governance, upcoming Conference Proceedings of ASEFInnoLab5 (with R.T. Flores, F. Marcelloni and R. Novak)

[4] An Algebraic Framework for the Modeling of Limit Order Books, 2024, available at arXiv (with M. Bleher)

[3] Density Forecasts with Local Quantile Projection and Quantile Vector Autoregression Applied to Inflation, 2024, available at SSRN (with S. Koch and T. Dimpfl)

[2] Metropolitan, urban, and rural regions – How regional differences affect elementary school students' academic achievement, well-being, and motivation, 2023, available at SSRN (with J. Schwerter, P. Doebler and N. McElvany)

[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)

WORK IN PROGRESS

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. Tarantola
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

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)

Invited Talks

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 Karlruhe 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

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

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

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, KDEnlive, ffmpeg, sox, NGINX (Reverse Proxy), Gitlab (hosting), Jupyterhub (hosting), Openstack (incl. heat templates), Shibboleth, YAML, Arduino C, NVIDIA Rapids for GPU Computing, VS Code, Obsidian

LANGUAGE SKILLS

German	–	native
English	–	fluent
French	–	very good command

TEACHING

University of Hohenheim

> AIDAHO Tinkering Club (WT24/25)
>
> Applied Data Science Lab (WT23/24, WT24/25)
>
> Bachelor or Master Thesis in Business Mathematics and Data Science (ST24, WT24/25)
>
> CSH Spring School 2024 – Reproducible Science with Containerization on High Performance Computing Infrastructure (ST24)
>
> Introduction to Data Science with R and RStudio (ST23, ST24)
>
> Introduction to Applied Data Science (WT23/24)
>
> Tools for AI and Data Science: An Introduction to R, Python and SQL (WT22/23, ST23, WT23/24, ST24, WT24/25)

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)

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

December 24, 2024