

# Melanie Schienle

## contact information

Chair of Statistical Methods and Econometrics (SME)  
Karlsruhe Institute of Technology (KIT) - Institute of Statistics (STAT)  
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## ■ personal

**citizenship** German  
**languages** German (mother tongue), English (excellent), French (good)

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## ■ academic positions

02/2021 - Full Professor, Department of Mathematics, Karlsruhe Institute of Technology (KIT)  
04/2015 - Full Professor and Chair of Econometrics (W3, tenured), Department of Economics and Management, Karlsruhe Institute of Technology (KIT)  
10/2012 – 03/2015 Associate Professor of Econometrics (W2, tenured), director of the Institute of Empirical Economics, Leibniz University Hannover  
11/2008 - 09/2012 Assistant Professor Econometrics (W1), Humboldt-Universität zu Berlin  
10/2004 - 10/2008 Research Fellow, Department of Economics, University of Mannheim, Germany

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## ■ other appointments

01/2023 - Scientist, Heidelberg Institute for Theoretical Studies (HITS)  
10/2021 – 12/2022 Visiting scientist, Heidelberg Institute for Theoretical Studies (HITS)

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## ■ education

06/ 2008 Ph.D in Economics, Mannheim University (“summa cum laude”)  
advisors: Prof. Dr. Enno Mammen (Mannheim), Prof. Oliver Linton, PhD. (LSE London)  
thesis: “Nonparametric Nonstationary Regression”  
2003 - 2008 Ph.D. Studies in Economics, Mannheim University,  
Center of Doctoral Studies in Economics (CDSE)  
2006 Visiting PhD student, London School of Economics (Prof. Oliver Linton)  
09/ 2003 Diploma in Mathematics (minor Theoretical Physics), Karlsruhe University GPA 1.0 – with  
distinction (scale: 1 best - 5 fail)  
1998 - 2003 Studies in Mathematics and Theoretical Physics, Karlsruhe University, Germany  
2001 - 2002 Studies in Mathematics and Financial Mathematics, University of Toronto, Canada  
06/1998 Highschool Diploma, Grimmelshausen-Gymnasium Offenburg GPA 1.0 (scale: 1 best - 5  
fail)

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## ■ publications

*Direction Augmentation in the Evaluation of Armed Conflicts* (with J. Bracher, L. Rüter, F. Krüger, S. Lerch)  
**Journal of International Interactions**, 2023, forthcoming doi: 10.1080/03050629.2023.2255923

*Collaborative Nowcasting of COVID-19 Hospitalization Incidences in Germany* (with D. Wolfram, S. Abbott, M. an der Heiden, S. Funk, F. Günther, D. Hailer, S. Heyder, T. Hotz, J. van de Kasstele, H. Küchenhoff, S. Müller-Hansen, D. Syliqi, A. Ullrich, M. Weigert, J. Bracher), **PLOS Computational Biology**, 2023, forthcoming, doi: 10.1371/journal.pcbi.1011394

Large Spillover Networks of Nonstationary Systems (with Shi Chen) **Journal of Business & Economic Statistics**, 2023+, forthcoming, doi: 10.1080/07350015.2022.2099870

*Model Diagnostics and forecast Evaluation for Quantiles* (with Tilmann Gneiting, Daniel Wolffram, Johannes Resin, Johannes Bracher, Timo Dimitriadis, Veit Hagenmeyer, Alexander Jordan, Kristof Kraus, Sebastian Lerch, Kaleb Phipps), **Annual Review of Statistics and its Applications**, 2023, Vol. 10, doi: 10.1146/annurev-statistics-032921-020240

*Assessing the Impact of Policy and Regulation Interventions in European Sovereign Credit Risk Networks: What worked best?* (with Rebekka Buse and Jörg Urban), **Journal of International Economics**, 2022, Vol 139 (Nov 22), 103673 doi: 10.1016/j.jinteco.2022.103673 , older WP-version: <https://www.esrb.europa.eu/pub/pdf/wp/esrb.wp90~d15bda5af1.en.pdf?a2cafd4da9f6717535c100de007032f9>

*National and subnational short-term forecasting of COVID-19 in Germany and Poland, early 2021* (with J. Bracher, D. Wolffram, J. Deuschel, K. Görgen, J.L. Ketterer, A. Ullrich, S. Abbott, M.V. Barbarossa, D. Bertsimas, S. Bhatia, M. Bodych, N.I. Bosse, J.P. Burgard, J. Fuhrmann, S. Funk, K. Gogolewski, S. Heyder, T. Hotz, Y. Kheifetz, H. Kirsten, T. Krueger, E. Krymova, N. Leithäuser, M.L. Li, J.H. Meinke ,B. Miasojedow, J. Mohring, P. Nouvellet, J.M. Nowosielski, T. Ożański, M. Radwan, F. Rakowski, M. Scholz, S. Soni, A. Srivastava, T. Gneiting), 2022, **Communications Medicine**, 2, 136. doi: 10.1038/s43856-022-00191-8 <https://doi.org/10.1038/s43856-022-00191-8>

*Collaborative hubs: making the most of predictive epidemic modeling* (joint with N.G. Reich, J. Lessler, S. Funk, C. Viboud, A. Vespignani, R.J. Tibshirani, K. Shea, M.C. Runge<sup>1</sup>, R. Rosenfeld, E.L. Ray, R. Niehus, H.C. Johnson, M.A. Johansson, H. Hochheiser, L. Gardner, J. Bracher, R.K. Borchering, M. Biggerstaff) **American Journal of Public Health**, 2021, Volume 112, No 6, 839-842. doi: 10.2105/AJPH.2022.306831

*A Preregistered Short-term Forecasting Study of COVID-19 in Germany and Poland During The Second Wave* (with J. Bracher, D. Wolffram, J. Deuschel, K. Görgen, J.L. Ketterer, A. Ullrich, S. Abbott, M.V. Barbarossa, D. Bertsimas, S. Bhatia, M. Bodych, N.I. Bosse, J.P. Burgard, J. Fuhrmann, S. Funk, K. Gogolewski, Q. Gu, S. Heyder, T. Hotz, Y. Kheifetz, H. Kirsten, T. Krueger, E. Krymova, M.L. Li, J.H. Meinke, K. Niedzielewski, T. Ożański, F. Rakowski, M. Scholz, S. Soni, A. Srivastava, J. Zieliński, D. Zou, T. Gneiting), **Nature Communications**, 2021, Vol 12, No. 5173, doi: 10.1038/s41467-021-25207-0; (working paper version: medRxiv 2020.12.24.20248826; doi: <https://doi.org/10.1101/2020.12.24.20248826>)

*Testing for an Omitted Multiplicative Long-Term Component in GARCH Models* (with Christian Conrad), **Journal of Business & Economic Statistics**, 2020, Vol.38, No.2, 229-242; doi:10.1080/07350015.2018.1482759

*Detecting structural differences in tail dependence of financial time series* (with Carsten Bormann), **Journal of Business & Economic Statistics**, 2020, Vol.38, No.2, 380-392; doi:10.1080/07350015.2018.1506343

*A retrospective assessment of different endodontic treatment protocols* (with Andreas Bartols, Carsten Bormann, Luisa Werner, Winfried Walther, Christof E. Dörfer) **PeerJ**, 2020, 8:e8495 <https://doi.org/10.7717/peerj.8495>

*Determining Vector Error Correction Models in High Dimensions* (with Chong Liang), **Journal of Econometrics** 2019, Vol. 208, No. 2, 418-441; doi:10.1016/j.jeconom.2018.09.018

*Measuring Connectedness of Euro Area Sovereign Risk* (with Rebekka Buse), **International Journal of Forecasting**, 2019, Vol.35 , No.1, 25-44; doi:10.1016/j.ijforecast.2018.07.010

*Semiparametric Estimation with Generated Covariates* (with Enno Mammen and Christoph Rothe), **Econometric Theory**, 2016, Vol. 32, No.5, 1140-1177 ; doi:10.1017/S0266466615000134

*Systemic Risk Spillovers in the European Banking and Sovereign Network* (with Frank Betz (EIB, Luxemburg), Nikolaus Hautsch, Tuomas Peltonen (ECB, Frankfurt)), **Journal of Financial Stability**, 2016, Vol.25 , 206–224 doi:10.1016/j.jfs.2015.10.006 - [Results reported in the ECB Financial Stability Review in May 2013 (pages 71-73 ,box 6) and Nov.2013 (page 74 ,chart 3.15)]

*Beyond dimension two: A test for higher-order tail risk* (with Carsten Bormann and Julia Schaumburg), **Journal of Financial Econometrics**, 2016, Vol. 14, No 3, 552-580; doi: 10.1093/jfinec/nbv022

*Financial Network Systemic Risk Contributions* (with Nikolaus Hautsch and Julia Schaumburg), **Review of Finance**, 2015, Vol 19, No 2, 685-738; doi:10.1093/rof/rfu010

*Nonparametric Kernel Density Estimation Near the Boundary* (with Peter Malec), **Computational Statistics & Data Analysis**, 2014, Vol. 72, 57-76, doi:10.1016/j.csda.2013.10.023

*Forecasting systemic impact in financial networks* (with Nikolaus Hautsch and Julia Schaumburg, in press **International Journal of Forecasting**, 2014, Vol.30, No.3, 781–794; doi:10.1016/j.ijforecast.2013.09.004

*Capturing the Zero: A New Class of Zero-Augmented Distributions and Multiplicative Error Processes* (with Nikolaus Hautsch and Peter Malec), **Journal of Financial Econometrics**, 2013, Vol.12, No.1, 89-121; doi: 10.1093/jfinec/nbt002

*Nonparametric Regression with Nonparametrically Generated Regressors* (with Enno Mammen and Christoph Rothe), the **Annals of Statistics**, 2012, Vol. 40, No. 2, 1132-1170, doi:10.1214/12-AOS995

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*Vorhersagen sind schwer, vor allem die Zukunft betreffend: Kurzzeitprognosen in der Pandemie* (with J. Bracher, D. Wolfram, T. Gneiting) **DMV Mitteilungen**, 2021, Vol. 29, No. 4, 2021, 186-190. [doi: 10.1515/dmvm-2021-0073]

*Additive Models: Extensions and Related Models* (joint with Enno Mammen and Byeong U. Park) the **Handbook of Applied Nonparametric and Semiparametric Econometrics and Statistics** (editors Racine, Ullah), Oxford University Press 2014

*Generated Regressors in Nonparametric Estimation: A Short Review* (joint with Enno Mammen and Christoph Rothe), in **Recent Developments in Modeling and Applications in Statistics** (editors Oliveira, da Gracca Temido, Henriques and Vichi), Springer 2013

*Nonparametric Estimation of the Risk Neutral Density* (with Maria Grith and Wolfgang Härdle) in **Handbook of Computational Finance** (editors Duan, Härdle, Gentle), Springer 2012

*Nonparametric Nonstationary Regression*

In **Oberwolfach Report**, Volume 4, Issue 2, 2007 for the Workshop on Semiparametric and Nonparametric Methods in Econometrics

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#### **papers under revision/ submitted papers**

**Identifying Success Factors of Microcredits Using Robust Variable Selection for High-Dimensional Panel Data** (with L. Rüter)

**Ultra-High Dimensional Cointegration** (with Shi Chen) KIT working paper, pdf available on request

**Time-varying Limit Order Book Networks** (with Chen, S., Härdle, W.)

**How have German University Tuition Fees Affected Enrollment Rates: Robust Model Selection and Inference in High-Dimensions** (with K. Görgen)

**Predicting Value at Risk for Cryptocurrencies With Generalized Random Forests** (with K. Görgen und L. Meirer)

**Success Factors in Football: An Analysis of the EURO 2020** (with V. Renner, K. Görgen, H. Wäsche, A. Woll), **Nonparametric Nonstationary Regression with Many Covariates**

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#### **working papers and ongoing work**

**Estimation risk for systemic risk measures driven by semi-parametric models** (with Y. Chen, N. Hautsch, J. Leymarie) KIT working paper, pdf available on request

**Approximation of the Empirical Copula Process revisited: A new plug-in Estimator** (with O. Grothe, F. Kächele), pdf available on request

**Predicting Property Prices Using Augmented Crime Data: Extracting Information from Satellite Images with Convolutional Neural Networks** (with J. Deuschel, K. Görgen), KIT working paper, pdf available on request

**Identifying Important Factors of Property Prices Using Satellite Images and Crime Data** (with K. Görgen and K. Yu), KIT working paper, pdf available on request

**Evaluating Panel Data Forecasts** (with L. Rüter and M. Reichenbacher) KIT working paper (updated 05/2023)

**Robust Knockoffs for Controlling False Discoveries with an Application to Bond Recovery Rates** (with K. Görgen and A. Nazemi)

**Network Connectedness and Graphical Models** (with R. Buse and J. Urban)

**Nonparametric Additive Regression with Missing Data** (with Oliver Linton, Enno Mammen and Kyusang Yu) working paper

**Nonparametric Regression with Stationary and Nonstationary Variables** (with Kyusang Yu) working paper

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#### **■ conference/ workshop presentations**

Keynote International Symposium on Forecasting, July 2024, Dijon (scheduled)

Women in Econometrics, June 2024, Bologna (scheduled)  
 Workshop on Robust Methods in Financial Econometrics, September 2023, Copenhagen  
 Workshop on Financial Econometrics, Machine Learning and Big Data, May 2023, UPF and ENSADE Barcelona  
 Keynote Open Science Symposium, April 2023, Berlin  
 Workshop on Survey Data and Probabilistic Expectations, June 2022, Heidelberg  
 Meeting of the German Economic Association (Verein für Socialpolitik), September 2021 (invited workshop) IAAE, Cyprus, June 2019  
 INET Conference on Big Data Methods in Econometrics and Finance (invited), Cambridge UK, May 2019  
 CFE-ERCIM (invited), Pisa, December 2018  
 IMS-APRM (invited), Singapore, June 2018  
 Verein für Socialpolitik, Wien, September 2017 (invited Session, Ausschuss für Ökonometrie)  
 CFE-ERCIM, Seville, Spain, December 2016 (invited)  
 IMS Asia-Pacific RIM Meeting, Hong-Kong, June 2016 (invited),  
 HITS Workshop on Forecasting, Heidelberg, June 2016 (invited)  
 Dresden, March 2016 (invited)  
 ERCIM/CFE (invited), London, December 2015  
 Conference on Nonparametric Nonlinear Time Series (invited), Oxford, November 2015  
 World Congress of the Econometric Society, Montreal, August 2015  
 SYRTO Conference on Systemic Risk, Amsterdam (invited), June 2015  
 11th BMRC-DEMS Conference on Macro and Financial Economics/Econometrics (invited), London, May 2015  
 ERCIM/CFE (invited), Pisa, December 2014  
 IMS Asia-Pacific RIM Meeting (invited), Taipeh, July 2014  
 Workshop on "Non- and Semiparametric Volatility and Correlation Models ", Paderborn, July 2014  
**Pre 2013:** Conference on Applicable Semiparametrics (invited), Berlin, October 2013; Humboldt-Copenhagen Conference, Berlin, March 2013; IMS Asia-Pacific RIM Meeting (invited), Tokyo, July 2012; First Meeting of the Society of Nonparametric Statistics (invited), Thessaloniki, June 2012; SETA (Symposium of Econometric Theory and Applications), Shanghai, May 2012; Conference on Macro and Financial Econometrics, Heidelberg, September 2011; Verein für Socialpolitik, Frankfurt, September 2011; SETA (Symposium of Econometric Theory and Applications), Melbourne, April 2011; ESWC (Econometric Society World Congress), Shanghai, August 2010; Humboldt - Princeton Conference, Princeton, October 2009; International Symposium on Risk Management and Derivatives, Xiamen, China, July 2009; Banff Workshop "Non- and Semiparametric Methods", Banff Canada, April 2009; Oberwolfach Workshop "Sparse Recovery Problems in High Dimensions: Statistical Inference and Learning Theory", March 2009; ESEM (Meeting of the European Econometric Society), Milano, August 2008; German Open Conference on Probability and Statistics, Aachen, March 2008; European Winter Meeting of the Econometric Society, Brussels, November 2007; Oberwolfach Workshop "Non- and Semiparametric Methods", March 2007; ESEM (Meeting of the European Econometric Society), Vienna, August 2006; ENTER conference, Stockholm, January 2006

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■ **invited seminars**

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2023	Oxford University, Ausschuss für Ökonometrie, Open Science Symposium Berlin, Uni Hohenheim
2022	ENSAE CREST Seminar, Paris, KIT im Rathaus, Heidelberg Institute for Theoretical Studies (HITS), Freiburg University
2021	HU Berlin, Regensburg University, DeCOI Network
2020	Heidelberg Institute for Theoretical Studies (HITS), Magdeburg University, TU Dortmund
2019	"Ausschuss Ökonometrie " Verein für Socialpolitik Rauschholzhausen, Vienna University, TU Dresden, LMU Munich
2018	European Systemic Risk Board at the European Central Bank, Erasmus University Rotterdam, Weierstrass Institute Berlin
2017	Cologne University, Konstanz University, Tinbergen Institute Amsterdam, HU Berlin, Toulouse University
2016	Freiburg University, Aarhus University and CREATES (DK), Uppsala University (SE)
2015	Essex University (UK)

- 2014 ISOR Seminar Vienna University, "Ausschuss Ökonometrie" of Verein für Socialpolitik  
Rauischholzhausen, Kiel University, University of Duisburg-Essen, Bonn University, Cambridge  
University (UK), Economic Risk Seminar HU Berlin, Osnabrück University, University of East  
Anglia (UK)
- pre 2013 2013: Kiel University, European Banking Authority (EBA) in London, Karlsruhe Institute of  
Technology; 2012: FU Berlin; 2011: Hannover University, Brunel University (UK), CORE-Ecares  
Seminar at Louvain-la-Neuve; 2010: Heidelberg University, Humboldt University Berlin, Tilburg  
University and CentER; 2009: Mathematical Statistics Seminar at Weierstrass Institute Berlin,  
University of Cyprus at Lefkosia, CRC 649 Seminar in Motzen, Economic Risk Seminar at HU  
Berlin, Jour fixe CRC 649, Berlin; 2008: Princeton University, Humboldt University Berlin; 2007:  
CDSEM-Seminar Mannheim University, Brown Bag Seminar Mannheim University, GREMAQ  
statistics and econometrics seminar Toulouse University; 2006: London School of Economics,  
University College London; 2005: Stochastics seminar Marburg University

## ■ grants

- 2022-2025 **PI and Subproject Lead SP4 BMBF Consortium RESPINOW** – with Johannes Bracher  
(KIT), Claudia Denkinger (Uni Heidelberg), Berit Lange (HZI, Koordination), Viola  
Priesemann (MPI Göttingen) + partners from: Uni Tübingen, Uni Köln, Uni Münster, Uni  
Halle, TU Kaiserslautern, RKI
- 2022-2024 **PI Helmholtz Association research consortium** "Coping CAPacity of nations facing  
systemic crisis – a global intercomparison exploring the SARS-CoV-2 pandemic (COCAP)  
(190,000€ share of 3,7 Mio) - (joint with UFZ, HZDR, Uni Leipzig, LMU München, ifo)
- 2020-2023 **PI and Co-Coordinator Helmholtz Association IPV Pilot-grant** for "Scalable and  
Interpretable Models for Complex And structured Data (SIMCARD) (500,000€ share of 1,0  
Mio) - (joint with Tilmann Gneiting, HITS and Sach Mukherjee, DZNE)
- 2017-2022 **PI German Science Foundation (DFG)-grant** for "Quantile Methods in complex financial  
systems" (220,000€)
- 2014-2018 **PI German Science Foundation (DFG)-grant** for "Non- and Semiparametric Methods for  
Euler Equations" (175,000€)
- 2015-2020 **BMBF-grant** supporting **the chair of Econometrics and Statistics at KIT** (Professorinnen-  
Programm, 350,000€)
- 2010-2012 **Head of Project B11** "Non- and Semiparametric Methods for Nonlinear Cointegration Type  
Models in Euler Equations and Foreign Exchange Rate Markets" **within the Collaborative  
Research Center 649 "Economic Risk"** (110,000€ share)
- 2012-2016 **Head of Project B11** "Non- and Semiparametric Techniques for Financial Risk  
Measurement" (joint with Nikolaus Hautsch) **within the Collaborative Research Center  
649 "Economic Risk"** (175,000€ share) – (due to change of university from 1/10/2012 only  
associated partner)
- 2011-2015 **Grant with the German-Franco-University (DFH)** (120,000€)  
for student scholarships and infrastructure in the double degree program HU Berlin –  
ENSAE Paris/ENSAI Rennes (from 10/2012 project continued by Nikolaus Hautsch at HU  
Berlin)

## ■ awards / honors / service to the profession

- Associate editor International Journal of Forecasting (2023 -)  
Journal of Time Series Analysis (2016 -)
- 2023- Senior Fellow, Rimini Center of Economic Analysis (RCEA)
- 2023- Rimini Center of Economic Analysis (RCEA) Time Series Steering Committee member
- 2023- Elected member of the board of the German Economic Association (VFS)

2023-	Scientific Spokesperson, Center of Mathematics in Science, Economics and Engineering (MathSEE) at KIT – founding member of the steering committee since 2019
2023-	Vice-Dean of Research, Department of Economics and Management, KIT
2019- 2023	Chairwoman standing fields committee in Econometrics of the German Economic Association/ Vorsitz Ausschuss für Ökonometrie im Verein für Socialpolitik // member of the board of the German Economic Association and the German Consortium on Statistics (DAGStat)
2017	Faculty teaching award, Department of Economics and Management, KIT (10 000€)
2015-	Certificates of excellence in teaching of the Department of Economics and Management, KIT, for the classes (11 times): Statistics I, Statistics II, Introduction to Econometrics, Econometric Study Group: Machine Learning”
2009	Oberwolfach Graduate Leibniz Fellow
2008	Invitation to attend the Nobel Laureates Meeting in Lindau
2007	Invitation to the Winter Meeting of the Econometric Society in Brussels
2006	Scholarship of the German Science Foundation (DFG) for research stay at LSE
2003-2004	PhD-Scholarship of the German Science Foundation (DFG)
2003	Faculty award for best graduation of the year, Department of Mathematics, Karlsruhe University

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## ■ teaching experience

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### lectures at KIT:

Statistics I and II introductory core courses with accompanying Tutorials and R-Lab sessions for Bachelor students (Summer + Fall 2015, 2017, 2019, 2021) [750 students]

Economics III - Introduction to Econometrics for Bachelor students (Summer 2015-2021; 2023)

Financial Econometrics (Summer 2016, 2018, 2020; Winter 2022, 2023)

Financial Econometrics II (Winter 2020; Summer 2023)

Non- and Semiparametric Methods (Fall 2015, 2016, 2017, 2019, 2022, 2023)

Applied Econometrics for Master students (Summer 2015, 2016, Fall 2017, 2019)

Seminars: Applied Econometrics (Fall 2015, 2016), Topics in Econometrics (Fall 2016, Summer 2017, 2018), Econometrics study group on Statistical Learning (Fall 2015, 2016, Summer 2016, 2017)

### lectures at Leibniz University Hannover:

Empirical Economics, introductory core course with accompanying R-Lab Tutorials for Bachelor students (Summer 2013, Fall 2014) [800 students]

Applied Econometric Methods, core course for Master students (Fall 2012 and 2013) [120 students]

Applied Econometrics for Bachelor students (Fall 2012, 2013, 2014)

Financial Econometrics for Bachelor students (Summer 2014)

Non- and Semiparametric Methods for Bachelor students (Fall 2012 and Summer 2013, 2014)

Seminar in Micro-Econometrics for Bachelor students (Summer 2013, 2014)

### lectures at HU Berlin and Mannheim University:

Mathematics for PhD and advanced Master Students, course for BDPEMS and DIW graduate school (Humboldt University and DIW, Berlin, Fall 2009, 2010, 2011)

Advanced Econometrics for PhD, Master and Diploma Students (Humboldt University, Berlin, Summer 2009, 2010, 2011 and 2012)

Selected Topics in Econometrics: “Econometric Techniques for Assessing Systemic Risk” for PhD and advanced Master Students (Humboldt University, Berlin, Fall 2011)

Selected Topics in Econometrics: “Semiparametric Estimation Methods” for PhD and advanced Master Students (Humboldt University, Berlin, Fall 2010)

Selected Topics in Econometrics: Bootstrap Techniques for PhD and advanced Master Students (Humboldt University, Berlin, Fall 2009)

Selected Topics in Econometrics: Parametric and Nonparametric Methods in Nonlinear Time Series for Master and Diploma Students (Humboldt University, Berlin, Winter 2008/2009)

Econometrics I for PhD Students (Mannheim University, Fall 2008)

Theoretical Econometrics for Diploma and PhD students (Mannheim University, Spring 2008)

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Advanced Mathematics for PhD Students (Mannheim University, Fall 2006/2007/2008)  
Seminar Nonlinear and Nonparametric Time Series (Mannheim University, Summer 2006)  
Undergraduate Statistics (Mannheim University, Fall 2004, Summer and Fall 2005)

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## ■ academic activities

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PI graduate school KCDS (Karlsruhe School for Computational and Data Science), since 2022

PI graduate school HIDSS4Health (KIT- DKFZ Heidelberg), since 2020

joint organizer and director (together with Christian Conrad, Heidelberg (UHD) and Carsten Trenkler, Mannheim (UMA)) of the **HKMetrics network** (<https://hkmetrics.de>) involving:

- inaugural conference (09/2017) with Gumbel lecture
- regular joint research seminars, joint PhD student workshops alternating at KIT, UHD and UMA

### program committee memberships:

- Econometric Society European Summer Meeting (ESEM) 2023, Rotterdam – Track chair Econometrics
- Annual meeting of the German Economic Association 2019 and 2023 –Track chair Econometrics
- Econometric Society European summer Meeting (ESEM) 2018, Cologne
- German Probability and Stochastic Days (GPSD) 2018, Freiburg, section lead chair for Nonparametric and asymptotic statistics, joint with Jan Johannes (Heidelberg University)
- Annual meeting of the German Economic Association 2015

### refereeing service:

The Annals of Statistics, Journal of Econometrics, Nature Communications, Econometric Theory, Bernoulli, Journal of Business and Economic Statistics, JASA, Scandinavian Journal of Statistics, Journal of Applied Econometrics, Journal of Financial Econometrics, Electronic Journal of Statistics, The Oxford Bulletin, Journal of Time Series Analysis, Economics Letters, Journal of Statistical Planning and Inference, Journal of Nonparametric Statistics, The Economics of Transition, Statistics and Probability Letters, CSDA, SIAM Journal of Financial Mathematics, Journal of Empirical Finance, International Journal of Forecasting, Journal of Banking and Finance, ECB working paper series, Journal of the Korean Statistical Society, Metrika, International Journal of Information Technology & Decision Making, Journal of Mathematical Finance and Economics, Journal of Financial Analysis; DFG,...

### workshop/session organization:

Inaugural Gaul lecture at KIT featuring Caroline Uhler (10/2021+09/22) (joint with Tilmann Gneiting)

"Modern Econometrics faces Machine Learning" (joint with Weining Wang, Wolfgang Härdle and Bernd Fitzenberger) at Humboldt University Berlin (07/06/2017)

"Methods and Challenges in Financial Risk Measurement" at Kloster Drübeck (29/04-01/05/2010)

invited session organizer at the joint Conference on Methodological and Computational Statistics (ERCIM) and Computational Financial Econometrics (CFE): London 2015: session "Recent Advances in Time Series", Pisa 2014: session "Recent theoretical econometric advances in financial risk measurement", London 2013: session "Recent Advances in Non- and Semiparametric Regression"

### faculty/university activities and service:

member of CRYM (university research council) at KIT (2017- 2023)

member of the department council, school of economics, computer science and the social sciences (Bereich II) at KIT (2019-22)

LU Hannover: elected member of the faculty board 04/2013- 03/2015), head of various hiring committees

HU Berlin: coordinator double degree cooperation HU Berlin- ENSAE Paris, ENSAI Rennes (2008-2012)

faculty member of the Berlin Doctoral Program in Economics and Management Science (BDPEMS) and the DIW graduate program (2008-2012)

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## ■ post-docs and PhD-students

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### PostDocs:

Johannes Bracher (2020- ), now Emmy-Noether YIG-leader and former YIG Prep Pro fellow at KIT

Rebeka Gätjen (2019- )

Sebastian Lerch (2021- ), Vector Foundation YIG-leader

Jörg Urban (2022- 2023), now at Basel University

Shi Chen (2017-2021), now at Moody's Analytics

Julia Schaumburg (2013), now prof. VU Amsterdam

### PhD students:

Julia Schaumburg (2008-2013): Quantile Methods for Financial Risk Management, prof VU Amsterdam

Peter Malec (2008-2013): Essays on the Econometric Analysis of High-Frequency Data, post-doc U Cambridge

Carsten Bormann (2012-2017): Multivariate Extremes in Financial Markets, now at SAP AG, Berlin (Faculty award)

Jörg Urban (2015-2017): Credit risk contagion and arbitrage: Evidence from sovereign bond and credit default swap markets, now post-doc U Basel (Faculty award)

Chong Liang (2013-2018): High-Dimensional Time Series – New Techniques and Applications, now at Credit Suisse, London (Faculty award)

Rebekka Gätjen (2013-2019): Measuring Dynamic Spillovers in Networks: Sovereign Contagion, Regulation Effects and Market Sectors, (FIRM award – Frankfurt Institute of Risk Management), now postdoc at KIT

Konstantin Görden (2018- 2022): Statistical Model Selection and Prediction for Non-Standard Data: Insights and Applications in Economics and Finance, now at Allianz CH

Daniel Wolfram (2021- )

Lotta Rüter (2021- )

Jieyu Chen (2021-)

Friederike Becker (2022-)

Lisa Leimenstoll (2024-)

External second supervisor for: Karin Stürmer (Heidelberg University, 2016), Shi Chen (HU Berlin, 2017) , Konstantin Heidenreich (KIT, 2018), Onno Kleen (Heidelberg, 2020), Fabian Kächele (KIT, 2023), Friedrich Baumann (KIT, 2024)

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[01 - 2024]