Melanie Schienle

contact information

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■ personal

citizenship	German
languages	German (mother tongue), English (excellent), French (good), Italian, Arabic (basic), Latin

■ academic positions

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

■ education

06/ 2008	Ph.D in Economics “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 with distinction in Mathematics with minor in Theoretical Physics (GPA: 1.0)
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 (GPA: 1.0)

■ publications

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/jjfinec/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/jjfinec/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

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 GraccaTemido, 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

submitted papers

Determining Vector Error Correction Models in Higher Dimensions (with Chong Liang), KIT working paper, *revised and resubmitted, Journal of Econometrics (09/2016)*
[contributed paper at: ESEM 2014, IAAE 2015, Econometric Society World Congress 2015, CFE-ERCIM 2015]

Testing for an Omitted Long-Term Component in Multiplicative GARCH Models (with Christian Conrad), KIT working paper, *revised and resubmitted, Journal of Econometrics (09/2016)*
[contributed paper at: IAAE 2015, Econometric Society World Congress 2015, SOFIE 2016]

Nonparametric Nonstationary Regression with Many Covariates, *revise and resubmit, Econometric Theory*

Detecting structural differences in tail dependence of financial time series (with Carsten Bormann), KIT working paper, *submitted* (12/2016)
[contributed paper at CFE-ERCIM 2015]

Measuring Connectedness of Euro Area Sovereign Risk (with Rebekka Gätjen) KIT working paper, 2016, *submitted (12/2016)*
[contributed paper at IAAE 2016]

working papers and ongoing work

High-Dimensional Cointegration (with Chong Liang) working paper KIT, 2017
[contributed paper at IAAE 2016, ESEM 2016]

Euro area sovereign credit markets: monetary stimulations, regulations or economic fundamentals. What matters? (with Rebekka Gätjen, Kristyna Ters und Jörg Urban), working paper KIT, 2017

Estimation of Covariance Matrices for High-Dimensional Time Series (with Taras Bodnar, Ostap Okhrin and Nestor Parolya) working paper Leibniz University, 2016

Testing in nonstationary component GARCH models working paper KIT, 2016
[invited paper: IMS APRM 2016, time-series conference Oxford 2015]

Nonparametric Additive Regression with Missing Data (with Oliver Linton, Enno Mammen and Kyusang Yu) working paper KIT, 2015

A REX for Banks (with Philipp Burckhardt and Julia Schaumburg) working paper Leibniz University, 2013

Nonparametric Regression with Stationary and Nonstationary Variables (with Kyusang Yu) working paper Leibniz University, 2013

Nonparametric Estimation of Euler Equations

conference/ workshop presentations

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
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

(* invited, presentation by coauthor)

invited seminars

2017	Cologne University, Konstanz University, Tinbergen Institute Amsterdam (scheduled)
2016	Freiburg University, Aarhus University and CREATES (DK), Uppsala University (SE) (scheduled)
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)
2013	Kiel University, European Banking Authority (EBA) in London, Karlsruhe Institute of Technology (KIT)
2012	FU Berlin
2011	Hannover University, Brunel University (UK), CORE-Ecares Seminar at University of 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

2017-2020	**Grant from the German Science Foundation (DFG) for "**Quantile Methods in complex financial systems**"** (220,000€)
2014-2017	**Grant from the German Science Foundation (DFG) for "**Non- and Semiparametric Methods for Euler Equations**"** (175,000€)
2015-2020	**BMBF-grant** supporting **the chair of Econometrics and Statistics at KIT** (Professorinen-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€)
2013-2016	**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€) – (due to change of university from 1/10/2013 only associated partner by DFG rules)
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

2016	Faculty teaching award, Department of Economics and Management, KIT
2016	Certificates of excellence in teaching for the lecture "Statistics II", Department of Economics and Management, KIT
	Certificate of excellence in teaching for the lecture "Economics III – Introduction to Econometrics" Department of Economics and Management, KIT
	Certificate of excellence in teaching for the seminar "Econometric Study Group: Machine Learning" Department of Economics and Management, KIT
2015	Certificate of excellence in teaching for the lecture "Statistics I" Department of Economics and Management, KIT
	Certificate of excellence in teaching for the lecture "Economics III- Introduction to Econometrics", Department of Economics and Management, KIT
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
2000-2001	Scholarship of the province Baden-Württemberg for the Ontario/Baden Württemberg-exchange program
1998	Award for the best high school diploma of the year, prizes in mathematics, chemistry and history

■ teaching experience

Lectures at KIT:

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

Economics III - Introduction to Econometrics for Bachelor students (Summer 2015, 2016)

Applied Econometrics for Master students (Summer 2015, 2016)

Financial Econometrics (Summer 2016), Non- and Semiparametric Methods (Fall 2015, 2016)

Seminars: Applied Econometrics (Fall 2015,2016), Econometrics study group (Fall 2015,2016, Summer 15)

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, 2011and 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)

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)

■ academic activities

associate editor, Journal of Time Series Analysis

memberships: European Econometric Society, Bernoulli Society, The Institute of Mathematical Statistics, the Society of Financial Econometrics, European Finance Association, CFE-network of Computational Financial Econometrics, Verein für Socialpolitik – elected member of Ausschuss für Ökonometrie, Verein für Socialpolitik

refereeing service:
The Annals of Statistics, Journal of Econometrics, Econometric Theory, Bernoulli, Journal of Business and Economic Statistics, Scandinavian Journal of Statistics, Journal of Applied Econometrics, Journal of Nonparametric Statistics, Journal of Financial Econometrics, electronic Journal of Statistics, The Oxford Bulletin, The Economics of Transition, Statistics and Probability Letters, Journal of Empirical Finance, International Journal of Forecasting, 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

workshops and meetings:
program committee member of the Annual meeting of the German Economic Association 2015
section lead chair "Stochastiktage 2018" for Nonparametric and asymptotic statistics in Freiburg joint with Jan Johannes (Heidelberg University)

joint organizer (together with Christian Conrad, Heidelberg) of the HeiKaMEtrics workshop series – a joint PhD student workshop of Mannheim University, KIT and Heidelberg University in Econometrics:

at KIT (07/2015),
at Heidelberg University (02/2016)
at Mannheim University (11/2016)

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"

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

faculty/university service:
member of various hiring committees, KIT (2015-)
member of the committee of Leitprojekt 5 implementing the core strategy (Dachstrategie) of KIT 2025

elected member of the faculty board, LU Hannover (04/2013- 03/2015)

head of the joint hiring committee for the finance cluster at LU Hannover involving three full professorships in international financial markets, financial market theory and finance (2014), head of the hiring committee for a junior professorship in development economics, LU Hannover (2013), member of several other hiring committees at LU Hannover
coordinator double degree cooperation HU Berlin- ENSAE Paris, ENSAI Rennes (2008-2012)

coordinator Erasmus Mundus Proposal Master Statistics: HU Berlin, ENSAE Paris, UCL London, ETH Zurich, UC Berkeley 2010 (invited for resubmission)

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

■ students

PhD students:

Julia Schaumburg (2008-2013): Quantile Methods for Financial Risk Management, now post-doc, 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

Rebekka Gätjen (2013-): Econometric Techniques for Systemic Risk Measurement

Chong Liang (2013-): LASSO for Cointegration

master-/diploma students

ongoing at KIT: Florian Merkel, Karsten Ruppert, Christian Rörig, Frieder Conrad, Carlo Siebenschuh, Phoung van Thanh,

Petyo Bonev (2008), *Generalized Nonparametric Likelihood Testing,* now assistant professor, Paris

Julia Schaumburg (2008), *Nonparametric Quantile Methods,* now assistant professor VU Amsterdam

Stephen Thiele (2011) *Bootstrapping Moment Conditional Models with Dependent Data,* now PhD Student Cambridge University, UK

Carsten Bormann (2011) *Measuring Risks with Multivariate EVT,* now PhD student LU Hannover

Gunavan (2012) *An Emipirical Comparison of Backtesting Techniques for VaR*. now at BNP Paribas

Jing Huang (2012) *An Empirical Investigation of LASSO and SCAP Methods,* now PhD Student BDPEMS Berlin

Axel Groß-Klußmann (2012) *Modelling Intra-daily Stock Market Volatility,* PhD Student BDPEMS Berlin

Arthur Alik-Lagrange (2012) *Measuring Welfare and Assessing the Performance of India's National Rural Employment Guarantee Scheme,* PhD student Toulouse University

Céline Lecavellier des Étangs-Levallois (2012) *Intergenerational Economic Mobility: The Transmission of Income Level from Fathers to Sons,* PhD student Paris

Camille Dufour (2013) *Evaluation of the impact of the tuition fees policy on enrollment in Germany,* PhD in Paris

Tabea Nitschke (2013) *Estimating and Predicting Systemic Risk Contributions with a GARCH-MIDAS Model*
Marco Hamacher (2016) *CoVar, CAViaR and Expectiles: Evaluating VaR Forecast Models for European* Systemic Risk Estimation

bachelor students

Cindy Lamm, Jasmin Fliegner, Gunavan, Rebekka Gätjen, Karl-Friedrich Israel, Phillipp Burckhardt (faculty award), Lucas Tittmann, Malte Lichtenberg (all HU Berlin); Lisa Denkmann, Maximilian Pahl (LU Hannover)

Daniela Ruchser, Matthias Bitzer (KIT)

[02 - 2017]