

Prof. Melanie Krause, Ph.D.

Curriculum Vitae, April 2023

Personal Information

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ORCID: 0000-0001-9299-2366

Nationality: German Year of Birth: 1984

Family: Partner, 1 Daughter (*2012)

Current Position

02/2023 - University Professor of Sustainable Real Estate and Urban Development,

today Leipzig University

Previous Positions

04/2022 - Visiting Professor ('Vertretungsprofessorin') of Sustainable Real Estate and

01/2023 **Urban Development**, Leipzig University

09/2015 - Junior Professor of Macroeconomics, Hamburg University

01/2023 Positive Midterm Evaluation ('Zwischenevaluation') in 08/2018

08/2009- Research Assistant, Johann-Wolfgang-Goethe Universität Frankfurt

07/2015 At the Chair of International Macroeconomics & Macroeconometrics (Prof. Michael Binder,

Ph.D.)

Education

09/2008- Ph.D. in Economics (Summa Cum Laude), Johann-Wolfgang-Goethe Universität

12/2014 Frankfurt

Structured Ph.D. Program with Fields: Econometrics, Macroeconomics

Ph.D. Thesis: Econometric Advances in the Analysis of Income Inequality Within and

Between Countries

- 09/2005- Master of Science in Management (Distinction) and Diplôme de Grande
- 09/2008 **Ecole (Félicitations du Jury)**, ESCP-EAP European School of Management, London-Madrid-Paris

Multinational program with double degree: 3 countries, 3 languages

Master's Thesis: How Higher Moments Affect Portfolio Choice under Prospect Theory

- 10/2003- Vordiplom (Undergraduate Studies) in Economics with mark 1,4 ('excellent'),
- 02/2005 Rheinische-Friedrich-Wilhelms-Universität Bonn
- 08/1994- Abitur (equivalent to A-Level) with mark 1,0 ('excellent'), Städtisches Gym-
- 06/2003 nasium Rheinbach

Research

Research Fields

- Urban and regional economics
- Economic development
- Income inequality

Research Methods

Data-driven empirical analysis

- Machine learning
- Geo-spatial data

Research Grants

09/2017- German Research Foundation (DFG) Grant for Shining (New) Light on 08/2020 Regional Inequality, Convergence and Development

Principal investigator, jointly with Richard Bluhm and Christian Lessmann. Total project funding for 3 years (2017-2020): 569,000 Euro (individual share: 185,200 Euro)

Publications in Peer-Reviewed Journals

- 2023 The Emperor's Geography City Locations, Nature and Institutional Optimization (with Christian Düben), *Economic Journal 133*, pp.1067-1105
- 2022 Top Lights Bright Cities and Their Contribution to Economic Development (with Richard Bluhm), *Journal of Development Economics 157*, 2022, article 102880
- 2021 Air Pollution in an Urban World: A Global View on Density, Cities, and Emissions (with David Castells-Quintana and Elisa Dienesch), *Ecological Economics 189*, 2021, article 107153
- 2021 The Urbanising Force of Global Warming: The Role of Climate Change in the Spatial Distribution of Population (with David Castells-Quintana und Tom McDermott), *Journal of Economic Geography 21(4)*, 2021, pp.531-556
- 2021 Population, Light, and the Size Distribution of Cities (with Christian Düben), *Journal* of Regional Science 61(1), 2021, pp.189-211

- 2020 Rising Mean Incomes for Whom? (with Liang Frank Shao), *PlosOne 15(12)*, 2020, e0242803
- 2019 Convergence vs. The Middle Income Trap: The Case of Global Soccer (with Stefan Szymanski), *Applied Economics* 51(27), 2019, pp.2980-2999
- 2017 The Millennium Peak in Club Convergence A New Look at Distributional Changes in the Wealth of Nations, *Journal of Applied Econometrics 32(3)*, 2017, pp.621-642
- 2014 Parametric Lorenz Curves and the Modality of the Income Density Function, *Review of Income and Wealth 60(4)*, 2014, pp.905-929

Working Papers

The Geographical Determinants of Within-City Heterogeneity in Urban Density (with André Seidel), CESifo Working Paper 8660

Regional Convergence at the County Level: The Role of Commuters (with Sebastian Kripfganz), *University of Exeter Economics Department Discussion Paper 22/01*

Work in Progress

Headwind or Tailwind at the Ballot Box? - The Local Effect of Wind Turbines on Green Party Support (with Vincent Stegmaier)

Zero Waste Cities (with Jane Torbert)

Smaller Notes

Corrigendum to "Elliptical Lorenz Curves" [J. Econom. 40 (1989) 327 - 338], *Journal of Econometrics 174*, 2013, p.44

Presentations

Conference Presentations

1st FDZ Ruhr Regional Disparity Workshop, Essen, Germany
8/2019 59th European Regional Science Congress, Lyon, France
06/2019 Urban Economics Conference, Amsterdam, Netherlands
11/2018 12th CESifo Workshop on Political Economy, Dresden, Germany
09/2018 Jahrestagung des Vereins für Socialpolitik, Freiburg, Germany
08/2018 58th European Regional Science Congress, Cork, Ireland
05/2018 Workshop on GeoData and Economics, Braunschweig, Germany
05/2018 Urban Economics Conference, Düsseldorf, Germany
03/2018 Royal Economic Society Conference, University of Sussex, Brighton, UK
07/2017 7th ECINEQ Meeting, New York City, US
09/2016 Jahrestagung des Vereins für Socialpolitik, Augsburg, Germany
08/2016 IARIW Conference, Dresden, Germany
08/2016 EEA-ESEM Congress, Geneva, Switzerland

09/2015 Jahrestagung des Vereins für Socialpolitik, Münster, Germany

05/2015 **Spring Meeting of Young Economists**, Ghent, Belgium 06/2014 1st Conference of the International Association of Applied Econometrics, London, UK 04/2014 **Spring Meeting of Young Economists**, Vienna, Austria 12/2013 24th (EC)² Conference - Econometric Analysis of Mixed Frequency Data, Nicosia, Cyprus 09/2012 Jahrestagung des Vereins für Socialpolitik, Göttingen, Germany 03/2012 International Atlantic Economic Society Conference, Istanbul, Turkey 02/2012 **RGS Doctoral Conference in Economics**, Duisburg, Germany Seminar Presentations 01/2023 Free University Berlin, Germany, Economics Research Seminar 11/2022 Universidad Autónoma de Barcelona, Spain, Economics Research Seminar 04/2021 Ifo Institute Munich, Germany, Digital Transformation and Innovation Seminar (online format) 09/2020 German Institute for Global and Area Studies (GIGA) Hamburg, Germany, Seminar in Socio-Economics (online format) 02/2020 Rijksuniversiteit Groningen, Netherlands, Research Seminar 11/2019 Ruhr Universität Bochum, Germany, Regional Economics Seminar 02/2019 Helmut-Schmidt-University Hamburg, Germany, Empirical Research Seminar 06/2018 University of Cologne, Germany, Econometrics Seminar 11/2017 University of Hannover, Germany, Brown Bag Seminar 08/2017 Monash University Melbourne, Australia, Development Economics Seminar 08/2017 University of Queensland, Brisbane, Australia, Economics Seminar 08/2017 Griffith University Gold Coast, Australia, Economics Seminar 06/2017 WU Vienna, Austria, Macroeconomics Seminar 03/2017 University of Umeå, Sweden, Economics Seminar 05/2016 University of Kiel, Germany, Econometrics Seminar 10/2015 University of Hamburg, Germany, Labour Economics Seminar 07/2014 Goethe University Frankfurt, Germany, Money and Macro Brown Bag Seminar

Summer/ Winter Schools

9th Winter School on Inequality and Social Welfare Theory, Alba di Canazei (Dolomites), organized by University of Verona, Italy

11/2013 **Goethe University Frankfurt**, Germany, Money and Macro Brown Bag Seminar 10/2011 **Goethe University Frankfurt**, Germany, Money and Macro Brown Bag Seminar

- 08/2013 **New Developments in Panel Methods Summer School** with lectures by Jeffrey M. Wooldridge, Mainz, Germany
- 06/2011 The Jerusalem Summer School in Economic Growth, Jerusalem, Israel

Conference Organization

05/2019 Workshop on Geo Data in Economics, Hamburg, Germany

Local organizer of the two-day conference with keynote speakers David Weil (Brown University) and Maxim Pinkovskiy (Federal Reserve Bank New York)

Seminar Organization

Hamburg University

Research Seminar in Quantitative Economics

Co-Organization in the Winter Semester 2021/22 (hybrid format), Summer Semester 2021 (online format), Winter Semester 2020/21 (online format), Summer Semester 2020 (online format), Winter Semester 2019/20, Summer Semester 2019, Winter Semester 2018/19, Summer Semester 2018, Winter Semester 2017/18, Summer Semester 2017, Winter Semester 2016/17, Summer Semester 2016, Winter Semester 2015/16

Doctoral Seminar in Economics

Organization in the Winter Semester 2021/22 (hybrid format), Summer Semester 2021 (online format), Winter Semester 2020/21 (online format), Summer Semester 2020 (online format), Winter Semester 2019/20, Summer Semester 2019, Winter Semester 2018/19, Summer Semester 2018, Winter Semester 2017/18, Summer Semester 2017. Co-Organization in the Winter Semester 2016/17, Summer Semester 2016

Teaching

Leipzig University

Lecturer of Big Data and Smart Cities (Master's level)

Summer Semester 2023, 2022

Lecturer of Introduction to Urban Economics (Undergraduate level)

Summer Semester 2023, 2022

Lecturer of Socio-Economic Issues of Urban Development (Master's level)

Winter Semester 2022/23

Lecturer of Economic Growth, Income Distribution, Sustainability (Undergraduate level)

Winter Semester 2022/23

Hamburg University

Lecturer of Topics in Urban Economics (Master's level, seminar)

Winter Semester 2021/22 (online format), Summer Semester 2020 (online format)

Lecturer of Machine Learning Methods in Economics (Master's level)

Winter Semester 2020/21 (online format)

Lecturer of Applied Time Series and Panel Data Econometrics (Master's level)

Winter Semester 2018/19, 2017/18, 2016/17

Lecturer of Economic Growth and Income Distribution (Undergraduate level)

Summer Semester 2019, 2018, Winter Semester 2016/17, 2015/16

Lecturer of Long-Run Economic Development (Undergraduate level, seminar)

Summer Semester 2020 (online format), 2016

Lecturer of Applied Econometrics II (Undergraduate level)

Summer Semester 2016

Johann-Wolfgang-Goethe-Universität Frankfurt

Discussion session instructor of Macroeconomics I (Undergraduate level)

Winter Semester 2014/15, 2013/14, 2012/13, Summer Semester 2012

Teaching assistant of tutorial groups in Macroeconomics I (Undergraduate level)

Winter Semester 2011/12, Summer Semester 2011, 2009

Teaching assistant of the macroeconometrics course International Money and Finance (Master's level)

Winter Semester 2010/11

Pre-Semester course instructor of Real Analysis (Ph.D. and Research Master level)

Winter Semester 2010/11

Rheinische-Friedrich-Wilhelms-Universität Bonn

Teaching Assistant of Production Theory (Undergraduate level)

Winter Semester 2004/05

Thesis Supervision

Ph.D. Thesis Supervision (Leipzig University)

Ongoing Vincent Stegmaier, Jane Torbert

Ph.D. Thesis Supervision (Hamburg University)

Ongoing Christian Düben

Master's Thesis Supervision (Hamburg University)

- 2022 Svetlana Prokhorchik
- 2021 Narek Mirzoyan, Bohdan Kostiv, Alejandro Parra Cárdenas, Avery Wehner, Elena Storti, Oxana Iakovleva
- 2020 Oyinkansola Osunkoya, Anahit Kirakosyan
- 2019 Bora Lee, Mitchel Graves, Zhexin Zhang, Selcuk Kirbas
- 2018 Eva Cordts, Yagmur Kurtoglu
- 2017 Mengchao Zhang, Adeoye Oyekan, Yan Stegert, Claudia Hernández
- 2016 Logan Carlson

Bachelor Thesis Supervision (Hamburg University)

- 2022 Gunay Abdinova, Ashwin Fernandes, Alina Westphal
- 2021 Fawad Ahmad Bajwa, Salome Last
- 2020 Felix Kintrup, Elisa Stumpf, Benedikt Kretzler, Felicitas Bichowski, Helena Blumenschein, Louisa Kirsten, Kyari Yahaya, Robin Denker
- 2019 David Andjelkovic, Lennart Dühren, Phuong Duy Ha, Andrés Grabau, Jude-Ismael Ladouceur, Hoshang Hussainy, Jiaxi Chen
- 2018 Clemens Lehner, Nina Morgenstern, Steven Schlicker, Cheng Huo, Malte Christophersen, Nadine Scherer
- 2017 Steven Ficht, Alexander Weis, Raphael Layer, Nadjim Sarwary, Arber Mehmeti, Christina Preuße, Niklas Pätzold, Frederik Moorkamp
- 2016 Tim Wunderlich, Eugen Bill, Tina-Marie Jung, Moritz Lamparter, Olesja Ischanow

Refereeing

Research Funds and Funding Institutions

Sveriges Riksbankens Jubileumsfond, Mercator Research Center Ruhr

Academic Journals

Economic Journal, American Economic Review: Insights, Review of Income and Wealth, Journal of Economic Inequality, Remote Sensing, Journal of Urban Affairs, World Development, Oxford Bulletin of Economics and Statistics, Canadian Journal of Economics, Review of International Organizations, Applied Economics, Finanzarchiv, Statistica Neerlandica, Economies, Sustainability

Awards

- 11/2018 Nachhaltigkeits-Patin for the Sustainable Development Goal "Decreasing Inequalities" by Hamburg University
 - Official recognition by the university president and 5000 euro funding for sustainability-related projects
- 08/2014 Invitation to Participate in the 5th Lindau Nobel Laureate Meeting as Young Economist
- 12/2008 Premier Prix du Mémoire de Recherche

Prize for the best master's thesis of the year (2000 Euro), awarded by Fondation ESCP-EAP

Machine Learning Course Certificates

- 02/2021 Natural Language Processing Specialization, DeepLearning. Al via Coursera
- 06/2021 Course 4: Natural Language Processing with Attention Models
 - Course 3: Natural Language Processing with Sequence Models
 - Course 2: Natural Language Processing with Probabilistic Models
 - Course 1: Natural Language Processing with Classification and Vector Spaces

IT Skills

Programming Python, incl. SciPy, NumPy, Pandas, scikit-learn, TensorFlow, Trax Very good

STATA, inkl. Mata in STATA

Very good

Matlah

Advanced

Matlab Advanced
R Basic

R Basic QGIS Good

Geo-Data QGIS

Tables Excel

Very good

Editor LATEX Very good

Data Bases SQL Basic

Language Skills

German Mother Tongue

English Fluent (written and spoken)
Spanish Fluent (written and spoken)
French Fluent (written and spoken)

Norwegian Fluent (written and spoken)