

# Prof. Melanie Krause, Ph.D.

# Curriculum Vitae, August 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

Regional Dependencies and Spillovers: Insights from Commuter Flows (with Sebastian Kripfganz), *University of Exeter Economics Department Discussion Paper 22/01* 

# Work in Progress

Unlocking Neighborhood Density (with André Seidel)

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

Zero Waste Cities (with Jane Torbert)

Bright and Green? City Growth and Intra-Urban Inequality in a Global Sample (with Konstantin Reisner and David Castells-Quintana)

#### **Smaller Notes**

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

## Presentations

#### Conference Presentations

| 09/2019 | 1st FDZ Ruhr Regional Disparity Workshop, Essen, Germany              |
|---------|---|
| 08/2019 | 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) <sup>2</sup> 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   |
| 04/2023 | Technical University Dresden, Germany, Economics Research Colloquium  |
| 01/2023 | Free University Berlin, Germany, Economics Research Seminar   |
| 11/2022 | Universidad Autónoma de Barcelona, Spain, Economics Research Seminar  |
| 04/2021 | <b>Ifo Institute Munich</b> , Germany, Digital Transformation and Innovation Seminal (online format)                    |
| 09/2020 | <b>German Institute for Global and Area Studies (GIGA) Hamburg</b> , 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   |
| 11/2013 | Goethe University Frankfurt, Germany, Money and Macro Brown Bag Seminar   |
| 10/2011 | 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

- 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

# Big Data and Smart Cities (Master's level)

Summer Semester 2023, 2022

#### Introduction to Urban Economics (Undergraduate level)

Summer Semester 2023, 2022

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

Winter Semester 2022/23

## Economic Growth, Income Distribution, Sustainability (Undergraduate level)

Winter Semester 2022/23

#### Hamburg University

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

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

#### Machine Learning Methods in Economics (Master's level)

Winter Semester 2020/21 (online format)

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

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

#### **Economic Growth and Income Distribution (Undergraduate level)**

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

## Long-Run Economic Development (Undergraduate level, seminar)

Summer Semester 2020 (online format), 2016

#### **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 (Leipzig University)

2023 Nikol Kövesi. Kerstin Hoffmann

## 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 (Leipzig University)

2023 Ngoc Anh Ha, Daniel Schöck

#### 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

Matlab Advanced

R

Geo-Data QGIS Good

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)

Basic