



# Prof. Melanie Krause, Ph.D.

*Curriculum Vitae, April 2022*

## Personal Information

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ORCID: 0000-0001-9299-2366  
Nationality: German  
Year of Birth: 1984  
Family: Partner, 1 Daughter (\*2012)

## Current Position

04/2022 – **Visiting Professor ('Vertretungsprofessorin') of Sustainable Real Estate and Urban Development**, *Leipzig University*.  
today  
  
09/2015 – **Junior Professor of Macroeconomics**, *Hamburg University*.  
today Positive Midterm Evaluation ('Zwischenevaluation') in 08/2018

## Education

08/2008– **Ph.D. in Economics (Summa Cum Laude)**, *Johann-Wolfgang-Goethe Universität Frankfurt*.  
12/2014  
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 Ecole (Félicitations du Jury)**, *ESCP-EAP European School of Management, London-Madrid-Paris*.  
09/2008  
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')**, *Rheinische-Friedrich-Wilhelms-Universität Bonn*.  
02/2005

08/1994- **Abitur (equivalent to A-Level) with mark 1,0 ('excellent')**, *Städtisches Gymnasium Rheinbach*.  
06/2003

## Professional Experience

08/2009- **Research Assistant**, *Johann-Wolfgang-Goethe Universität Frankfurt*.  
07/2015 Working on research projects and teaching tutorial groups at the Chair of International Macroeconomics & Macroeconometrics (Prof. Michael Binder, Ph.D.)  
05/2008- **Student Assistant**, *ESCP-EAP, Paris*.  
07/2008 Working on a research project at the Finance Chair (Prof. Dr. Emmanuel Jurczenko)  
04/2007- **Intern**, *Commerzbank España, Madrid*.  
07/2007 Working in Risk Management  
05/2006- **Intern**, *JPMorgan, London*.  
08/2006 Working in Investment Banking, Equity Derivatives  
04/2005- **Intern**, *PricewaterhouseCoopers, Düsseldorf*.  
06/2005 Working in Advisory Transactions

## 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 Regional Inequality, Convergence and Development***.  
08/2020 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

- 2022 The Emperor's Geography - City Locations, Nature and Institutional Optimization (with Christian Düben), Conditionally Accepted at *Economic Journal*
- 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 and Revise & Resubmits

Top Lights - Bright Cities and Their Contribution to Economic Development (with Richard Bluhm), *CESifo Working Paper 7411*, Revise and Resubmit (2nd Round) at *Journal of Development Economics*

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*

#### 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](#)
- 04/2021 **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
- 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

- 01/2014 **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)

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## 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

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## Teaching

### 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

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## Thesis Supervision

[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 Abidinova, 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

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## Refereeing

[Research Funds and Funding Institutions](#)

*Sveriges Riksbankens Jubileumsfond, Mercator Research Center Ruhr*

## Academic Journals

*Economic Journal, 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.AI 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 | <i>Very good</i> |
|             | STATA, inkl. Mata in STATA   | <i>Very good</i> |
|             | Matlab   | <i>Advanced</i>  |
|             | R  | <i>Basic</i>     |
| Geo-Data    | QGIS   | <i>Good</i>      |
| Tables      | Excel  | <i>Very good</i> |
| Editor      | L <sup>A</sup> T <sub>E</sub> X                                    | <i>Very good</i> |
| Data Bases  | SQL  | <i>Basic</i>     |

## Language Skills

|           |                                    |
|-----------|------------------------------------|
| German    | <i>Mother Tongue</i>               |
| English   | <i>Fluent (written and spoken)</i> |
| Spanish   | <i>Fluent (written and spoken)</i> |
| French    | <i>Fluent (written and spoken)</i> |
| Norwegian | <i>Fluent (written and spoken)</i> |