

Markus Trunschke

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Research and Teaching Interests

Economics of Innovation, Empirical Industrial Organization, Economics of Digitization, Applied Microeconomics, Computational Economics, Structural Modelling

Current Positions and Affiliations

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| 5.2024-present | Postdoctoral researcher at the Hoover Institution, Stanford University |
| 12.2023-present | Visiting researcher at KU Leuven Department of Managerial Economics, Strategy and Innovation (MSI) |
| 4.2024-present | Junior Research Associate at ZEW – Mannheim, Mannheim Department of Innovation Economics and Industrial Dynamics |

Past Positions and Affiliations

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| 10.2017-4.2024 | Researcher at ZEW – Leibniz Centre for European Economic Research, Mannheim Department of Innovation Economics and Industrial Dynamics |
| 11.-12.2023 | Visiting Scholar at Hoover Institution, Stanford University, invited by Kenneth L. Judd |
| 10.2017-11.2023 | PhD student at KU Leuven Department of Managerial Economics, Strategy and Innovation (MSI), Supervisor Prof. Dirk Czarnitzki |
| 8.2022 | Visiting Scholar at Hoover Institution, Stanford University, invited by Kenneth L. Judd |
| 01.2022-05.2022 | Visiting Scholar at Pennsylvania State University Department of Economics, invited by Prof. Mark Roberts |
| 8.2021 | Visiting Scholar at University of Ghent Department of Marketing, Innovation and Organisation, invited by Prof. Maikel Pellens |
| 2019 | External Lecturer at Baden-Wuerttemberg Cooperative State University, Advanced Microeconomics (undergraduate level) |
| 2015-2016 | Research Assistant at GESIS - Leibniz-Institute for the Social Sciences |

Education

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| 2017-2023 | PhD in Business Economics at KU Leuven, Department of Managerial Economics, Strategy and Innovation (MSI) |
| 2019-2020 | Visiting Student at University of Mannheim Department of Economics |
| 2016-2017 | Master of Science in Economics at KU Leuven Major: Research in Economics (cum laude) Advanced Econometrics, Structural Modeling, Dynamic Methods, Game Theory, Industrial Organization |
| 2013-2016 | Bachelor of Science in Economics at University of Mannheim Economic Theory, Microeconomics, Econometrics, Statistics |

Research

Publications in Peer-Reviewed Journals

- Pandemic Effects: Do Innovation Activities of Firms Suffer from Long-COVID?, *with Bettina Peters, Dirk Czarnitzki, and Christian Rammer*, Research Policy, [Link](#)

Discussion Papers and Research in Progress

- Estimating Gross Output Production Functions, *with Kenneth L. Judd*, [Link](#)
- Carbon Pricing and Innovation: The Impact of the European Carbon Trading System, [Link](#)
- Choosing Technologies: Benefits of Investing into the Development of Fourth Industrial Revolution Related Technologies, *with Bettina Peters*, [Link](#)
- Efficient Estimation of Likelihood Ratio Confidence Sets, *with Kenneth L. Judd and Gregor Reich*
- Competition from China in the Product and Input Markets and Innovation in Germany, *with Philipp Böing, Pierre Mohnen, and Loren Brandt*
- Measuring Organisation Capital at the Firm Level: A Production Function Approach, *with Christian Rammer and Felix Roth*, ZEW Discussion Paper, [Link](#)
- Industry 4.0 Related Innovation and Firm Growth, *with Vanessa Behrens*, ZEW Discussion paper, [Link](#)

Contract Research and Projects

- Focus Study on Technology markets (Schwerpunktstudie Technologiemarkte), 2023, [Link](#), *Commission of Experts for Research and Innovation*
- Growth Welfare Innovation and Productivity (GROWINPRO), *European Commission*
- Mannheim Innovation Panel: Innovation Activities of German Enterprises, *German Ministry for Education and Research*

- Swiss Report on Research and Innovation, 2018,
Swiss State Secretariat for Education, Research, and Innovation
- Investments in New Forms of Knowledge-Based Capital (INFOWIK),
German Ministry for Education and Research.
- Innovation Activity of Companies in East Germany since Reunification (Innovationstätigkeit der Unternehmen in Ostdeutschland seit der Wiedervereinigung),
Commission of Experts for Research and Innovation
- Development of Research and Development Expenditure in Germany in an International Comparison (Entwicklung der Forschungs- und Entwicklungsausgaben in Deutschland im internationalen Vergleich), *KfW - Credit Institute for Reconstruction*

Dissemination

- News article in German business news magazin **Wirtschafts Woche** on *Pandemic Effects* study (14.4.2023),
[Link](#)
- **WIPO GII Report** 2022 Chapter - Expert Contribution: Productivity impact of the Fourth Industrial Revolution, *with Bettina Peters*, [Link](#)

Conference Organisation

- 9th ZEW/MaCCI Conference on the Economics of Innovation and Patenting (Mannheim, Germany), 2022
- 8th ZEW/MaCCI Conference on the Economics of Innovation and Patenting (Mannheim, Germany), 2019

Invited Seminar Presentations

- CIS seminar series, BETA, University of Strasbourg, 2023

Research Presentations

- Comparative Analysis of Enterprise Data (CAED) (State College, USA), 2024
- 50th EARIE Annual Conference (Rome, Italy), 2023
- 28th Annual Conference of the European Association of Environmental and Resource Economists (EAERE) (Limassol, Cyprus), 2023

- DRUID Conference (Lisbon, Portugal), 2023
- 19th CEPR/JIE School on Applied Industrial Organization (Cambridge, England), 2023
- Poster presentation at Munich Summer Institute (Munich, Germany), 2023
- 11th Mannheim Conference on Energy and the Environment (Mannheim, Germany), 2023
- 9th ZEW/MaCCI Conference on the Economics of Innovation and Patenting (Mannheim, Germany), 2022
- Munich Summer Institute Ph.D Workshop (Munich, Germany), 2022
- Eu-SPRI conference (Utrecht, Netherlands), 2022
- International Industrial Organization Conference (Boston, USA), 2022
- IP and Innovation Virtual Seminar (online), 2022
- Applied Microeconomics Seminar Pennsylvania State University (State College, USA), 2022
- CONCORDi Conference (online), 2021
- 17th CAED Conference (Coimbra, Portugal), 2021
- DRUID Conference (Copenhagen, Denmark), 2021
- 16th European Policy for Intellectual Property Conference (EPIP) - PhD Workshop (Madrid, Spain), 2021
- 48th EARIE Annual Conference (Bergen, Norway), 2021
- 18th ISS - International Schumpeter Society Conference (Rome, Italy (online)), 2021
- 9th KID 2021 Summerschool on Knowledge Dynamics, Industry Evolution, Economic Development (Nice, France), 2021
- MaCCI IO Day at University of Mannheim (Mannheim, Germany (online)), 2021
- ZEW - Joint PhD Workshop on Innovation, Entrepreneurship and Competition (online), 2020
- 8th PhD Workshop Economics of Innovation, Complexity and Knowledge (Turin, Italy (online)), 2020
- CISS, 9th Competition and Innovation Summer School (Ulcinj, Montenegro), 2019
- CISS, 8th Competition and Innovation Summer School (Ulcinj, Montenegro), 2018

Referee for Journals

International Journal of Industrial Organization (IJIO), Research Policy, Journal of Economic Behavior and Organization, European Journal of Political Economy, Industry and Innovation, Eurasian Business Review

Skills

Programming Languages:

Julia (advanced) | Python (advanced) | Matlab (advanced) | Stata (advanced) | \LaTeX (advanced) | R (intermediate) | SQL (basic) | C++ (basic) | Fortran (basic) | HTML (basic).

Operating Systems:

Microsoft Windows | Linux (Debian, Ubuntu).

Further Software:

Visual Studio Code, Git, Microsoft Office Suite, Mendeley.

Programming skills:

Programming quantitative economic and statistical models | numerical optimization | numerical integration | function approximation | simulation methods | parallelization | processing of large data sets | run-time optimization and benchmarking.

Mathematical and statistical skills:

Structural economic modeling | structural estimation | dynamic programming models | stochastic models | causal inference models | numerical methods.

Other

- YES! - Young Economic Summit, 2018-2019, leading student teams in preparation and competition