

## TOBIAS RÜTTENAUER

Curriculum Vitae

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### CONTACT

UCL Social Research Institute  
University College London  
55–59 Gordon Square, London WC1H 0NU  
Email: [t.ruttenauer@ucl.ac.uk](mailto:t.ruttenauer@ucl.ac.uk)  
Homepage: [ruettenauer.github.io](https://ruettenauer.github.io)

### ACADEMIC POSITIONS

- 2022–present (tenured 2023) Assistant Professor (Lecturer) in Quantitative Social Science, UCL Social Research Institute. University College London
- 2022–present Associate Member, Nuffield College. University of Oxford
- 2019–2022 Postdoctoral Prize Research Fellow in Sociology, Nuffield College. University of Oxford
- 2018–2019 Postdoctoral Research Assistant, Chair of Sociology and Social Stratification. TU Kaiserslautern
- 2015–2018 Research Assistant, Chair of Sociology and Social Stratification. TU Kaiserslautern
- Apr–Sep 2015 Research Assistant, Chair of Quantitative Methods of Empirical Social Research. JMU Würzburg

### EDUCATION

- 2018 Dr. phil, Sociology. TU Kaiserslautern  
Dissertation: 'Environmental Inequality in Germany' (*summa cum laude*)
- 2015 Master of Arts, Sociology (Minor: Statistics). LMU Munich
- Aug–Dec 2013 Globalization Program. Venice International University
- 2012 Bachelor of Arts, Sociology (Minor: Economics). LMU Munich

### FURTHER TRAINING

- Apr 2021 Machine Learning. Politics Spring School. University of Oxford
- June 2019 Summer Institute in Computational Social Science. University of Oxford
- Aug 2016 Spatial Econometrics. Summer School in Social Science Data Analysis. University of Essex

### RESEARCH INTERESTS

Environmental Sociology	Causal Inference
Spatial Demography	Computational Social Science
Urban Sociology	Spatial Econometrics / GIS

## **JOURNAL PUBLICATIONS**

Rüttenauer, T. (2023). More Talk, No Action? The Link between Exposure to Extreme Weather Events, Climate Change Belief and pro-Environmental Behaviour. *European Societies*, 1–25.

\* News coverage in: [Austrian Academy of Science](#), [Der Standard](#), [FM4](#), [Understanding Society Insights](#), [The Economist](#), [Wiener Zeitung](#).

Haußmann, C. and Rüttenauer, T. (2023). Material deprivation and the Brexit referendum: A spatial multilevel analysis of the interplay between individual and regional deprivation. *European Sociological Review*, [jcad057](#).

Ehler, I., Bader, F., Rüttenauer, T., and Best, H. (2023). The Air Pollution Disadvantage of Immigrants in Germany: Partly a Matter of Urbanity. *European Sociological Review*, [OnlineFirst](#).

Rüttenauer, T. and Ludwig, V. (2023). Fixed Effects Individual Slopes: Accounting and Testing for Heterogeneous Effects in Panel Data or Other Multilevel Models. *Sociological Methods & Research*, [52\(1\): 43–84](#).

Conte Keivabu, R. and Rüttenauer, T. (2022). London Congestion Charge: The Impact on Air Pollution and School Attendance by Socioeconomic Status. *Population and Environment*, [43\(4\): 576–596](#).

Mader, S. and Rüttenauer, T. (2022). The Effects of Non-pharmaceutical Interventions on COVID-19 Mortality: A Generalized Synthetic Control Approach Across 169 Countries. *Frontiers in Public Health*, [10: 1–8](#).

\* Shared first authorship

Neuberger, F., Rüttenauer, T., and Bujard, M. (2022). Where Does Public Childcare Boost Female Labor Force Participation? Exploring Geographical Heterogeneity Across Germany 2007–2017. *Demographic Research*, [46: 693–722](#).

Rüttenauer, T. and Best, H. (2022). Perceived Pollution and Selective Out-Migration: Revisiting the Role of Income for Environmental Inequality. *Journal of Ethnic and Migration Studies*, [48\(15\): 3505–3523](#).

Mills, M. C. and Rüttenauer, T. (2022). The Effect of Mandatory COVID-19 Certificates on Vaccine Uptake: Synthetic-Control Modelling of Six Countries. *The Lancet Public Health*, [7\(1\): e15–e22](#).

\* News coverage in: [BBC](#), [Bloomberg](#), [Daily Mail](#), [El Mundo](#), [Guardian](#), [La Repubblica](#), [Sky News](#), [Süddeutsche Zeitung](#), [The Times](#).

Rüttenauer, T. (2022). Spatial Regression Models: A Systematic Comparison of Different Model Specifications Using Monte Carlo Experiments. *Sociological Methods & Research*, [51\(2\): 728–759](#).

\* ISA RC33 (Logic and Methodology) Best Paper Award 2021

Rüttenauer, T. and Best, H. (2021). Environmental Inequality and Residential Sorting in Germany: A Spatial Time-Series Analysis of the Demographic Consequences of Industrial Sites. *Demography*, [58\(6\): 2243–2263](#).

Rüttenauer, T. (2019). Bringing Urban Space Back in: A Multilevel Analysis of Environmental Inequality in Germany. *Urban Studies*, [56\(12\): 2549–2567](#).

Rüttenauer, T. (2018). Neighbours Matter: A Nation-wide Small-area Assessment of Environmental Inequality in Germany. *Social Science Research*, [70: 198–211](#).

Best, H. and Rüttenauer, T. (2018). How Selective Migration Shapes Environmental Inequality in Germany: Evidence from Micro-Level Panel Data. *European Sociological Review*, [34\(1\): 52–63](#).

## **BOOKS, CHAPTERS AND REPORTS**

- Hoffmann, R., Andriano, L., Borderon, M., Grace, K., Rüttenauer, T., and Striessnig, E. (forthcoming): Population and Climate Change: The Defining Relationship of the 21st Century. *Vienna Yearbook of Population Research*.
- Rüttenauer, T. (2022). Muster ethnischer Segregation in Deutschland – Ein Vergleich anhand räumlicher Segregationsmaße. In Kruse, H. and Teltemann, J., editors, *Differenz im Raum*, volume 35 71–109. Springer, Wiesbaden.
- Mills, M. C., Rüttenauer, T. (2021). The Impact of Mandatory COVID-19 Certificates on Vaccine Uptake – Synthetic Control Modelling of 6 Countries. Rapid research prepared for Scientific Advisory Group for Emergencies (SAGE), [UK Government Publication](#).
- \* was available for participants to read at SAGE meeting 96
- Rüttenauer, T. and Best, H. (2021). Consistent Inequality Across Germany? Exploring Spatial Heterogeneity in the Unequal Distribution of Air Pollution. In Franzen, A. and Mader, S., editors, *Research Handbook on Environmental Sociology* 41–61. Edward Elgar Publishing.
- Rüttenauer, T. (2018). *Environmental Inequality in Germany*. TU Kaiserslautern, Kaiserslautern. Online available at <https://nbn-resolving.org/urn:nbn:de:hbz:386-kluedo-54210>.
- \* Haaß Foundation (TU Kaiserslautern) Dissertation Award 2018
- \* Freundeskreis (TU Kaiserslautern) Dissertation Award 2018

## **OPEN SOURCE SOFTWARE (R)**

- Rüttenauer, T. and Ludwig, V. (2019). *feisr: Estimating Fixed Effects Individual Slope Models*. [Available on CRAN](#).
- Contributions to [spatialreg](#) by R. Bivand and G. Piras.

## **WORK IN PROGRESS**

- König, C., Heisig, JP., Rüttenauer, T., Schaeffer, M., and Wiedner, J.: Environmental Quality, Local Infrastructures, and Residential Choice: A Survey Experiment on Ethnic Differences in Neighborhood Preferences.
- Ivanova, K., and Rüttenauer, T.: Greening the Nursery: Exploring the (Un)fertile Grounds of Environmentalism in Fertility Intentions.
- Rüttenauer, T.: Changing Inequalities? The Influence of Environmental Zoning Policies on the Unequal Distribution of Air Pollution in London.
- Rüttenauer, T.: Spatial Data Analysis. [[Working paper](#)]
- Rüttenauer, T., and Aksoy, O.: When Can We Use Two-Way Fixed-Effects (TWFE): A Comparison of TWFE and Novel Dynamic Difference-in-Differences Estimators. [[Working paper](#)]
- Rüttenauer, T., Bader, F., Best, H., and Ehler, I.: Breathing Unequal Air: Environmental Disadvantage and Residential Sorting of Immigrant Minorities in England and Germany. [[Working paper](#)]
- Rüttenauer, T., and Kapelle, N.: Panel Data Analysis. [[Working paper](#)]
- Rüttenauer, T. and Wiertz, D.: Neighbourhood Attainment of Immigrant Minorities in England: A Computational Approach.

## **FUNDING AND GRANTS**

2022 [SICSS Oxford](#) (with E. Akimova, R. Kashyap, C. Rahal, F. Rampazzo). Σ 34,450 £

- 2021 [SICSS Oxford](#) (with C. Barrie, C. Rahal, F. Rampazzo). Σ 10,000 £  
Workshop Environmental Social Sciences (with S. Mader). Σ 6,700 £
- 2020 [SICSS Oxford](#) (with C. Barrie, R. Kashyap, C. Rahal). Σ 27,000 £  
Workshop Environmental Social Sciences (with S. Mader). Σ 9,000 €
- 2019 Co-PI for DFG grant 'Environmental Inequality in Germany – A Nationwide Assessment of the Spatial Patterns Causing Environmental Inequality' by H. Best. 365,839 €
- 2016–2018 Travel grants of the TU Kaiserslautern Nachwuchsring. Σ 4,236 €
- 2011–2015 Scholarship of the Max Weber-Program. Σ 6,300 €

### **CONSULTANCY & ADVISORY ROLES**

- Advisory Board GLEN - The German Longitudinal Environmental Study
- 2024 German Federal Office for Building and Regional Planning
- 2023 Food Standards Agency (Research Training)
- 2022-2023 ClientEarth (Research consultancy)
- 2021-2022 UK Department of Health & Social Care (Advisory support)
- 2021 Government Response Group SAGE SPI-B (Research support)

### **PUBLIC OUTREACH**

- Climate Change [Austrian Academy of Science](#), [Der Standard](#), [FM4](#), [The Economist](#), [Understanding Society Insights](#), [Wiener Zeitung](#)
- Covid Passports [BBC](#), [BBC Radio Oxford](#), [Bloomberg](#), [Daily Mail](#), [El Mundo](#), [The Guardian](#), [Nature](#), [La Repubblica](#), [Sky News](#), [Süddeutsche Zeitung](#), [The Times](#)

### **AWARDS & SCHOLARSHIPS**

- 2022–present Associate Membership, Nuffield College, University of Oxford
- 2021 ISA RC33 (Logic and Methodology) Best Paper Award
- 2019–2022 Postdoctoral Prize Research Fellowship in Sociology
- 2018 Haaß Foundation Award for Best Social Science Dissertation
- 2018 Freundeskreis (TU Kaiserslautern) Dissertation Award
- 2016–2018 Various travel grants of the TU Kaiserslautern Nachwuchsring
- 2011–2015 Scholarship of the Max Weber-Program for talented students

### **ADMINISTRATIVE TASKS & SERVICES**

- 2024–present Member of Academic Board. UCL
- 2022–present Member of faculty committees. UCL
- 2021-2022 Junior Dean. Nuffield College
- Strategy and Resource Committee. Nuffield College
- Library Committee Rep. Nuffield College

2017–2019	Representative of the mid-level faculty (PhD students and postdoctoral staff). TU Kaiserslautern, Department of Social Sciences
2016–2019	Member of appointment and evaluation committees in Sociology and Cognitive Science. TU Kaiserslautern, Department of Social Sciences
Editor for	<i>Vienna Yearbook of Population Research 2024</i>
Grant reviews	<i>European Research Council; Gesellschaft für Forschungsförderung Niederösterreich; UKRI Economic and Social Research Council</i>
Reviews for	<i>American Sociological Review; BMJ Open; Ecological Economics; Energy Research &amp; Social Science; Environmental Research; Environmental Research Letters; Environmental Sociology; European Journal of Ageing; European Societies; European Sociological Review; Geoforum; Geographica Helvetica; Journal of Ethnic and Migration Studies; Journal of Statistical Software; Journal of Urban Affairs; methods, data, analyses; Nature; Nature Communications; PLOS Climate; Population and Environment; Population Studies; Proceedings of the National Academy of Sciences; Quality and Quantity; Research in Social Stratification and Mobility; Review of Income and Wealth; Social Forces; Social Science &amp; Medicine; Sociological Methods &amp; Research; The Lancet Planetary Health; The Lancet Public Health; Urban Studies; Zeitschrift für Soziologie</i>

## **TEACHING EXPERIENCE**

See [teaching materials online](#).

Term 1/2 2023	Data Science Dissertation Module Principles of Social Science Research (with M. Sironi)	UCL UCL	Lecture Lecture	UG UG
Term 1 2022	Principles of Social Science Research (with P. Engzell)	UCL	Lecture	UG
Summer 2019	Empirical Urban Sociology Data Analysis using SPSS Data Analysis using R	TU Kaiserslautern TU Kaiserslautern TU Kaiserslautern	Seminar Tutorial Tutorial	B.A. B.A. B.A.
Winter 2018	Spatial Data Analysis Experiments in Sociology	TU Kaiserslautern TU Kaiserslautern	Seminar Seminar	M.A. B.A.
Summer 2018	Networks and Social Dynamics	TU Kaiserslautern	Seminar	B.A.
Winter 2017	Experiments in Sociology	TU Kaiserslautern	Seminar	B.A.
Summer 2017	Empirical Urban Sociology	TU Kaiserslautern	Seminar	B.A.
Winter 2016	Experiments in Sociology II Experiments in Sociology I	TU Kaiserslautern TU Kaiserslautern	Seminar Seminar	B.A. B.A.
Summer 2016	Environmental Sociology	TU Kaiserslautern	Seminar	B.A.
Winter 2015	Environmental Sociology Education and Labour Market	TU Kaiserslautern TU Kaiserslautern	Seminar Seminar	B.A. B.A.
Summer 2015	Quantitative Methods: Data Collection	JMU Würzburg	Tutorial	B.A.

## **WORKSHOPS, CONFERENCES & SESSIONS**

2024	<a href="#">Spatial Data Analysis</a>	EUI	Workshop
	Quantitative Social Science Seminar Series	UCL	Seminar series

2023	Impact Evaluation <b>Panel Data Analysis</b> Climate Change, Environmental Problems, and Population Dynamics <b>Geodata and Spatial Regression Analysis</b> Applied Introduction to Web Scraping	FSA University of Warwick BSPS Keele GESIS UCL	Workshop Workshop Conference strand Workshop Workshop
2022	Panel Data Analysis SICSS – Summer Institute in Computational Social Science (with E. Akimova, R. Kashyap, C. Rahal, F. Rampazzo) Demographic Consequences of Environment Risk (with R. Conte Keivabu)	University of Warwick University of Oxford BSPS Winschester	Workshop Summer school Conference strand
2021	Panel Data Analysis Environmental Social Sciences: Current Issues and Future Perspectives (with S. Mader) SICSS – Summer Institute in Computational Social Science (with C. Barrie, C. Rahal, F. Rampazzo)	University of Warwick University of Oxford University of Oxford	Workshop Mini conference Summer school
2020	Environmental Social Sciences: Current Issues and Future Perspectives (with S. Mader) Applied Fixed Effects Panel Regression using Stata (with V. Ludwig) Sociology Research Seminar (with C. Barrie, F. Wen)	University of Bern University of Calgary Nuffield College	Mini conference Workshop Seminar series
cancelled	SICSS – Summer Institute in Computational Social Science (with C. Barrie, R. Kashyap, C. Rahal)	University of Oxford	Summer school
2019	Spatial Regression Models	University of Göttingen	Workshop
2017, 2019	Quantitative Spatial Analysis of Micro and Macro Data (with H. Best)	ESRA Lisbon, Zagreb	Conference session

## **PRESENTATIONS**

2024	Environmental Inequality Across German Cities. IRB-Workshop, BBSR. Neighbourhood Attainment of Immigrant Minorities in England: Diverging Trajectories of Poverty and Air Pollution. Robert K. Merton Lecture Series, Leipzig.
2023	Neighbourhood Attainment of Immigrant Minorities in England: Escaping Poverty but not Air Pollu- tion. GESIS Workshop on Earth Observation Data, Cologne. Breathing Unequal Air: Environmental Disadvantage and Residential Sorting of Immigrant Minorities in England and Germany. BSPS, Keele. Sorting Processes of Environmental Conditions: Comparing Spatially Linked Panel Data in England and Germany. RC28, Paris. Air pollution, inequalities and energy poverty. An overview of the situation in Europe. Client Earth Air Pollution Meeting.

- 2022 Panel Discussion: Population And Greenhouse Gas Emissions. Wittgenstein Centre Conference 2022.  
 Neighbourhood Attainment of Immigrant Minorities in England. A Machine Learning Approach for Moving Trajectories. LSE Demography Seminar.  
 Changing Inequalities? The Influence of Environmental Zoning Policies on the Unequal Distribution of Air Pollution in London. Workshop TU Kaiserslautern.  
 Exposure to Extreme Weather Events in the UK May Affect Environmental Attitudes But Does Not Change Individual Behaviour. BSPS, Winchester.  
 Neighbourhood Attainment of Immigrant Minorities in England: Escaping Poverty but Not Air Pollution? EPC, Groningen.  
 Environmental Factors, Individual Attitudes, and Selective Migration. Sociology Seminar, Nuffield College.  
 Neighbourhood Attainment of Immigrant Minorities in England: Escaping Poverty but not Air Pollution?. RC28, London.  
 Neighborhood Attainment of Immigrant Minorities in England, 2009–2019: Escaping Deprived Ethnic Enclaves but Staying in Polluted Urban Areas. PAA, Atlanta.
- 2021 Assimilation or Gentrification? Neighbourhood Attainment of Immigrant Minorities in England. Seminar Analytical Sociology, LMU Munich.  
 Assimilation or Gentrification? Neighbourhood Attainment of Immigrant Minorities in England. ECSR. Spatial Regression Models: A Systematic Comparison of Different Model Specifications Using Monte Carlo Experiments. RC33.  
 Extreme Weather Events in the UK Elevate Climate Change Belief but not Pro-Environmental Behaviour. ESA.  
 Environmental Inequality and Residential Sorting in Germany: A Spatial Time-Series Analysis Identifying the Demographical Consequences of Industrial Sites. PAA Annual Meeting.  
 Extreme Weather Events and Environmental Attitudes and Behavior: A Large-Scale Longitudinal Approach in the United Kingdom. PAA Annual Meeting.  
 Environmental Inequality and Residential Sorting in Germany: A Spatial Time-Series Analysis Identifying the Demographic Consequences of Industrial Sites. Workshop Spatial Analysis of Social, Environmental, and Health Inequalities, WZB Berlin.
- 2020 Extreme Weather Events and Environmental Attitudes and Behaviour: A Large-Scale Longitudinal Approach in the UK. Seminar Analytical Sociology, LMU Munich.
- 2019 The Demographics of Pollution: A Spatial Analysis of Residential Sorting and Environmental Inequality. Research Colloquium Empirical Social Research, University of Konstanz.  
 Environmental Inequality and Selective Migration: A Household-Level Panel Study on How Pollution Affects the Probability of Moving. Seminar Analytical Sociology, LMU Munich.  
 The Demographics of Pollution: A Spatial Analysis of Residential Sorting and Environmental Inequality. Nuffield Sociology Seminar, University of Oxford.  
 Using Large Scale Register Based Data to Analyse Environmental Inequality: Different Measures, Different Scales - Same Results? Congress of the Academy of Sociology, University of Konstanz.  
 Environmental Inequality and Selective Migration: A Household-Level Panel Study on How Pollution Affects the Probability of Moving? ECSR, University of Lausanne.  
 The Performance of Spatial Regression Models: A Comparison of Model Specifications using Monte Carlo Simulations. ESRA, University of Zagreb.  
 The Unequal Distribution of Environmental Pollution: A Consequence of Selective Migration? Social Science Research Colloquium, TU Kaiserslautern.  
 Selective Siting and Selective Migration in Germany: A Spatial Time-Series Analysis of Environmental Inequality Mechanisms. Workshop Methods for Urban and Regional Sociology, University of Konstanz.
- 2018 Bringing Urban Space Back In: A Multi-Level Analysis of Environmental Inequality in Germany. Seminar talk at Max-Planck-Institute for Demographic Research, Rostock.  
 The More, the Better? A Systematic Comparison of Spatial Regression Models Using Monte Carlo Experiments. Seminar Analytical Sociology, LMU Munich (Poster).

- Bringing Urban Space Back In: A Multi-Level Analysis of Environmental Inequality in Germany. ASA Annual Meeting, Philadelphia.
- Selective Siting and Selective Migration in Germany: A Spatial Time-Series Analysis of Environmental Inequality Mechanisms. Congress of the Academy of Sociology, LMU Munich (Poster).
- 2017 Explaining Regional Differences in Environmental Inequality: A Multi-Level Assessment of German Cities. Seminar Analytical Sociology, LMU Munich.
- Neighbour's Influence: Different Strategies to Model Spatial Spillover Effects. ESRA, Lisbon.
- The Causes of Environmental Inequality: Evidence from Spatial Time-Series Analyses in Germany. ESRA, Lisbon.
- Neighbours Matter: A Nation-Wide Small-Area Assessment of Environmental Inequality in Germany. Conference on Human Dimensions of Environmental Risks, ETH Zurich.
- 2016 Environmental Justice in Germany: Evidence from Spatial Time-Series Analyses. RC33, Leicester.
- Environmental Justice in Germany: Evidence from Spatial Time-Series Analyses. Social Interaction and Society Conference, ETH Zurich.
- Umweltgerechtigkeit in Deutschland. Eine geographische Analyse von Umweltbelastungen. Research Colloquium of the Institute for Sociology, University of Bern.
- 2015 Lebenszufriedenheit und Tagesziele – eine Längsschnittanalyse anhand eines Smartphone Panels. Research Colloquium of the Institute for Sociology, LMU Munich.