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Christoph Kern

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Work Experience

- 02/2017–present **Post-Doctoral Researcher**
Professorship for Statistics and Methodology (Prof. Dr. F. Kreuter, Prof. Dr. F. Keusch), Department of Sociology, University of Mannheim
- 04/2011–03/2017 **Research associate**
Chair of Empirical Social Research and Statistics (Prof. Dr. P. Stein), Institute of Sociology (IfS), University of Duisburg-Essen
- 02/2014–09/2016 **Research associate**
Research project “*Modeling dyadic decision-making processes of regional mobility and their labour market outcomes*”, funded by the German Research Foundation (DFG) (STE 1054/6-1), University of Duisburg-Essen
- 04/2011–08/2011 **Research associate**
Research Unit “Flexibility and Security” (FLEX), Institute for Work, Skills and Training (IAQ), University of Duisburg-Essen
- 10/2009–02/2011 **Undergraduate research assistant**
Chair of Empirical Social Research and Statistics (Prof. Dr. P. Stein), Institute of Sociology (IfS), University of Duisburg-Essen

Education

- 12/2016 **Dr. rer. pol. (Ph.D.)** (summa cum laude)
Thesis “*Dyadische Modellierung des Entscheidungsprozesses regionaler Arbeitsmarktmobilität*” (“*Modeling dyadic decision-making processes of regional mobility*”); Primary adviser: Prof. Dr. P. Stein, secondary adviser: Dr. B. Weiß, University of Duisburg-Essen
- 10/2005–02/2011 **Dipl. Soz.-Wiss. (Bachelor & Masters in Sociology)** (1,3)
Major in Methods for Empirical Social Science Research, Minors in Analysis of Social Structures, Sociological Theory and Psychology, University of Duisburg-Essen

Training

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| 07/2017 | ESRA Short Course “Applications of Big Data to Social Sciences”, Lisbon (Portugal) |
| 08/2016 | JSM Continuing Education Course “A Statistical Approach to Machine Learning: Boosting, Nearest Neighbors, Random Forests and Support Vector Machines”, Chicago (USA) |
| 07/2015 | ESRA Short Course “Multilevel Structural Equation Modeling”, Reykjavik (Iceland) |
| 08/2014 | GESIS Summer School “Sampling, Weighting and Estimation”, Cologne (Germany) |
| 09/2012 | GESIS Spring Seminar “Mathematical Tools for Social Scientists”, Cologne (Germany) |
| 09/2011 | Datalab “Analysis of longitudinal data”, Bielefeld (Germany) |

Research Grands & Awards

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| 2015 | Early Career Award provided by the European Survey Research Association for the paper “ <i>Comparing coefficients of nonlinear multivariate regression models between equations</i> ” (jointly with Petra Stein) |
| 2014 | Research Grant awarded by the German Research Foundation (DFG) for the proposal “ <i>Modeling dyadic decision-making processes of regional mobility and their labour market outcomes</i> ” (jointly with Petra Stein), €111,800 |
| 2013 | Research Grant awarded by the Main Research Area “Transformation of contemporary societies” of the University of Duisburg-Essen, €6,900 |

Reviews for Journals

Zeitschrift für Soziologie (ZfS)

Professional Affiliations

UseR Group Bochum/Ruhr

American Statistical Association (ASA)

Sektion Methoden der empirischen Sozialforschung der Deutschen Gesellschaft für Soziologie (DGS)

Publications

Books

- [1] Kern, C. (2017): Dyadische Analyse regionaler Arbeitsmarktmobilität. Modellierung von Entscheidungsprozessen im Mehrebenenkontext. Wiesbaden: Springer VS. doi:[10.1007/978-3-658-17435-4](https://doi.org/10.1007/978-3-658-17435-4)

Refereed Journal Articles

- [2] Kern, C. / Stein, P. (2015): Comparing coefficients of nonlinear multivariate regression models between equations. *Survey Research Methods* 9 (3), 159–167. doi:[10.18148/srm/2015.v9i3.6211](https://doi.org/10.18148/srm/2015.v9i3.6211)
- [3] Kern, C. (2015): Modeling Mobility Dispositions from a Multilevel Perspective. *Schmollers Jahrbuch – Journal of Contextual Economics* 135 (1), 23–34. doi:[10.3790/schm.135.1.23](https://doi.org/10.3790/schm.135.1.23)

Book Chapters

- [4] Stein, P. / Kern, C. (2015): Dyadische Modellierung regionaler Arbeitsmarktmobilität. In: Lessenich, S. (Ed.): *Routinen der Krise – Krise der Routinen*. Verhandlungen des 37. Kongresses der Deutschen Gesellschaft für Soziologie in Trier 2014.

Conference / Working Papers

- [5] Kern, C. / Stein, P. (2016): Effect Comparison in Multilevel Structural Equation Models with Non-Metric Outcomes. *JSM Proceedings, Social Statistics Section*. Alexandria, VA: American Statistical Association. 3892–3901.
- [6] Kern, C. (2014): Regional structures and mobility dispositions: A multilevel proportional- & partial-proportional odds approach. *SOEP-papers on Multidisciplinary Panel Data Research* 681. DIW Berlin. doi:[10.2139/ssrn.2493094](https://doi.org/10.2139/ssrn.2493094)

Book Reviews

- [7] Stein, P. / Kern, C. (2016): Rezension: Friedrichs, J. / Nonnenmacher, A. (Eds.), 2014: *Soziale Kontexte und Soziale Mechanismen*. *Soziologische Revue* 39 (3), 480–484. doi:[10.1515/srsr-2016-0064](https://doi.org/10.1515/srsr-2016-0064)

Presentations

- 2017 Kern, C. (2017): Data-driven Prediction of Panel Nonresponse. ESRA Conference 2017, Session: Different methods, same results? Lisbon.
- Kern, C. / Stein, P. (2017): Effect Comparison in Multilevel Structural Equation Models with Non-Metric Outcomes. Meeting of the Working Group Structural Equation Modeling, Ghent.
- 2016 Kern, C. / Stein, P. (2016): Dyadische Modellierung des Entscheidungsprozesses räumlicher Mobilität im Mehrebenenkontext. DGS-Kongress 2016, Ad-hoc-Gruppe: Dyadische Datenanalyse, Bamberg.
- Kern, C. / Stein, P. (2016): Effect comparison in nonlinear dyadic mixed-effects models between equations. ASA 2016, Session: Quantitative Methodology, Seattle.
- Kern, C. / Stein, P. (2016): Effect comparison in nonlinear dyadic mixed-effects models between equations. JSM 2016, Speed Session: Statistics for Education and Social Sciences Research, Chicago.
- Kern, C. (2016): Effektvergleiche in dyadischen Mehrebenenmodellen mit nicht-metrischen abhängigen Variablen. Frühjahrstagung der DGS-Sektion Methoden der empirischen Sozialforschung, Duisburg.
- Kern, C. / Stein, P. (2016): Implicit rescaling in multivariate mixed-effects models with nonmetric outcomes. DAGStat 2016 – Statistics under one umbrella, Session: Structural Equation Modelling, Göttingen.
- 2015 Stein, P. / Kern, C. (2015): Effect comparison in nonlinear dyadic models. ESA Conference 2015, Session: RN21 Quantitative Methods, Prague.
- Kern, C. / Stein, P. (2015): Comparing coefficients of nonlinear multivariate regression models between equations. ESRA Conference 2015, Session: Interaction effects and group comparisons in nonlinear models, Reykjavik.
- 2014 Stein, P. / Kern, C. (2014): Dyadische Modellierung regionaler Arbeitsmarktmobilität. DGS-Kongress 2014, Sektion: Methoden der empirischen Sozialforschung, Trier.
- Stein, P. / Kern, C. (2014): Modellierung von dyadischen Entscheidungsprozessen räumlicher Mobilität und ihren Konsequenzen. Poster presentation, DGS-Kongress 2014, Trier.
- Stein, P. / Kern, C. (2014): Regional structures and mobility dispositions: A multilevel proportional- & partial-proportional odds approach. 11th International German Socio-Economic Panel User Conference, Berlin.
- Stein, P. / Kern, C. (2014): Modeling Dyadic Decision-making Processes of Regional Mobility and their Labor Market Outcomes. Workshop Transnational Labor Markets: Bridging Different Regulatory and Cultural Contexts, Duisburg.

Teaching

Courses

University of Mannheim

FSS 2017 *Machine Learning in the Social Sciences*

FSS 2017 *Empirisches Forschungspraktikum I* (Research Practicum I)

University of Duisburg-Essen

WS 2016/17 *Einführung in Machine Learning mit R*
(An Introduction to Machine Learning in R)

SS 2016 *Fortgeschrittene Regressionsanalyse in R* (Advanced regression methods in R)

SS 2014, 2015 *Modelle mit kategorialen Variablen*
(Regression models for categorical dependent variables)

SS 2013 *Mathematische Grundlagen statistischer Datenanalyse und deren Anwendung* (Essential Mathematics for Social Research)

SS 2012 *Einführung in die Computerprogramme Stata und R*
(An Introduction to Stata and R)

SS 2012 *Lehrforschungsprojekt II* (Research Practicum II)

WS 2011/12 *Lehrforschungsprojekt I* (Research Practicum I)

WS 2011/12 –
WS 2015/16 *Computerunterstützte Datenanalyse*
(Data Analysis Programmes)

Tutoring

University of Duisburg-Essen

WS 2010/11 *Multivariate statistische Analyseverfahren* (Multivariate Data Analysis)

SS 2010 *Analyse von Längsschnittdaten* (Longitudinal Data Analysis)

SS 2010 *Klassifikationsverfahren in der empirischen Sozialforschung*
(Statistical Classification in the Social Sciences)

WS 2009/10 *Modelle mit latenten Variablen* (Latent Variable Models)

Short Courses / Workshops

04/08/2017 *CART and Random Forests in R*, DataFest 2017 Mannheim

01/16/2017 –
01/17/2017 *Einführung in R* (An Introduction to R), Sozialwissenschaftliches Umfragezentrum (SUZ)

11/24/2015 *Arbeiten mit Objekten, Matrizen und simulierten Daten in R* (Objects, Matrices and Simulations in R), University of Duisburg-Essen

05/16/2013 *Einführung in R* (An Introduction to R), University of Duisburg-Essen