



## Martin Huber

Department of Economics, University of Fribourg,  
Bd. de Pérolles 90, CH-1700 Fribourg, Switzerland

Telephone: +41 26 300 82 74  
E-mail: [martin.huber@unifr.ch](mailto:martin.huber@unifr.ch)  
Twitter: @CausalHuber

Date of birth and nationality: May 06 1980, Austrian

---

### Research interests

Data-based causal analysis; machine learning; policy/impact/treatment evaluation in labor, health, education, and business economics; algorithmic detection of collusion/cartels; semi- and nonparametric methods.

---

### Academic positions

Since 09/2014	<b>University of Fribourg</b> Professor, Chair of Applied Econometrics and Policy Evaluation
02/2010-08/2014	<b>University of St. Gallen</b> Assistant professor of quantitative methods in economics
04/2006 -01/2010	<b>Swiss Institute for Empirical Economic Research, University of St. Gallen</b> Research assistant to Prof. Michael Lechner

---

### Research visits and affiliations

07/2019-08/2019	<b>University of Sydney</b> (host: Katrien Stevens)
08/2014	<b>University of Sydney</b>
09/2011-05/2012	<b>Harvard University</b> (scientific sponsor: Guido Imbens)
Affiliations:	<b>ZEW, Soda Labs</b> (Monash Business School), <b>Global Labor Organization, Ausschuss für Ökonometrie des Vereins für Socialpolitik, <a href="http://www.huberanalytcs.net">www.huberanalytcs.net</a></b>

---

### Accreditations and further work experience

05/2021	Accreditation as expert in data science by <b>AI Guild</b>
04/2004-03/2006	Employed in private sector companies: <b>Swarovski Crystal Components</b> (strategic marketing) and <b>Transped International</b> (transport logistics)

---

### Education

04/2006-01/2010	<b>Ph.D. in Economics and Finance; University of St. Gallen, Switzerland</b> Summa cum laude/with distinction. Specialization: Econometrics; thesis: "Microeconomic Estimators and Tests based on Nonparametric Methods, Quantile Regression, and Resampling"; referees: Profs. Michael Lechner, Enno Mammen, and Francesco Audrino
10/1999-02/2004	<b>M.A. programs in Economics and in International Business Studies; University of Innsbruck, Austria</b>
09/2001 - 04/2002	<b>Ecole Supérieure de Commerce, Grenoble, France</b> : Erasmus study abroad program

---

### Awards and grants

03/2024	<b>Finalist for the "Association of American Publishers Awards for Professional and Scholarly Excellence"</b> (PROSE Awards) in the category "Computing and Information Sciences" with the book <i>Causal Analysis: Impact Evaluation and Causal Machine Learning with Applications in R</i> .
04/2018	<b>Economicus 2017</b> prize by the foundation " <b>Nadácia VÚB</b> " (Slovakia) for economists below 40 awarded for the joint paper with Lukáš Laffèrs and Giovanni Mellace "Sharp IV Bounds on Average Treatment Effects on the Treated and other Populations under Endogeneity and Noncompliance".
11/2017	<b>Best paper award</b> on corruption issues of the organization " <b>Obchestvo Znanie</b> " for the joint paper with Elena Denisova-Schmidt and Elvira Leontyeva "Do Anti-Corruption Educational Campaigns Reach Students? Some Evidence from Two Cities in Russia and Ukraine".
09/2017	<b>Handelsblatt Ranking for Economists</b> in and from German speaking countries: ranked 8 <sup>th</sup> in terms of research output in the last 5 years; ranked 11 <sup>th</sup> among economists below 40 in terms of total research output.
05/2014	<b>Latsis Prize of the University of St. Gallen</b> awarded for the research in the field of microeconomic methodology for causal analyses at the "dies academicus" of the University of St. Gallen, May 24 2014
05/2013	<b>Austrian Young Economists Award</b> awarded for the joint paper with Giovanni Mellace "Testing instrument validity for LATE identification based on inequality moment constraints" at the Annual Meeting of the Austrian Economic Society, May 10-11 2013 in Innsbruck
01/2013	<b>Labour Prize in Theoretical or Applied Microeconometrics</b> awarded for the joint paper with Giovanni Mellace "Relaxing monotonicity in the identification of local average treatment effects" at the Fifth Italian Congress of Econometrics and Empirical Economics, Jan 16-18 2013 in Genoa
09/2011-05/2012	<b>Research fellowship of the Swiss National Science Foundation</b> for visiting the Harvard Department of Economics (Cambridge, MA, USA). Scientific sponsor: Prof. Guido Imbens
05/2009	<b>Austrian Young Economists Award</b> awarded for the paper "Testing for covariate balance using nonparametric quantile regression and resampling methods" at the Annual Meeting of the Austrian Economic Society, May 22-23 2009 in Linz

---

### Participation in externally funded research projects

2023-2024	"Pilotstudie zur Wirkung der Tabakprävention auf die Gesundheit in der Schweiz: Ein kontrafaktischer Ansatz" Evaluation of tobacco-use prevention programs in Switzerland funded by the Federal Office of Public Health: Principal investigator
-----------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2020-2021	“Do supersaver tickets balance out transport utilization?” Causal machine learning project on demand effects of discounts on train tickets funded by the Research Fund of the Swiss Federal Railways: Principal investigator (with H. Wallimann)
2018-2019	“Gender Occupational Segregation in the Swiss Apprenticeship Market: the Role of Employers” funded by the Swiss National Science Foundation (SNF): Principal investigator (with A. Fernandes)
2015-2016	“Policy Evaluation of Tariff Rate Quotas” funded by the Swiss Federal Office for Agriculture (FOAG): Subcontractor (of Areté s.r.l., Bologna)
2014-2015	“The impact of the socio-economic structure of the rural population on the success of rural development policy” funded by the Regional Research Promotion Program of the University of Fribourg: Scientific mentor
2012-2015	“Identifying causal mechanisms in empirical economics” funded by the Swiss National Science Foundation (SNF): Co-researcher (with M. Lechner, G. Mellace, and A. Strittmatter)
2011-2015	“Region, Nation and Beyond. An Interdisciplinary and Transcultural Reconceptualization of Ukraine” funded by the Austrian, German, and Swiss science foundations: Co-researcher
2007-2011	“Der Wert von Betriebsinformationen für Evaluationsstudien der aktiven Arbeitsmarktpolitik in Deutschland“ funded by the German Federal Employment Agency: Co-researcher
2006-2008	„Evaluation der Experimentierklausel nach §6c SGB II: Vergl. Evaluation des arbeitsmarktpol. Erfolgs der Modelle der Aufgabenwahrnehmung Optierende Kommune u. Arbeitsgemeinschaft“ funded by the German Federal Ministry of Labour and Social Affairs (BMAS): Co-researcher

## Teaching

**BA level:** Statistics, Applied Econometrics. **MA level:** Econometric Methods and Applications, Policy and Impact Evaluation (causal analysis), Big Data Methods (machine learning and non-parametric methods). **PhD level:** Treatment evaluation based on instrumental variables, Introduction to matching estimators, Causal mediation analysis, Predictive and causal machine learning. **Executive courses:** Introduction to machine learning with R or KNIME, Introduction to causal analysis, Machine learning-based detection of collusion. Organizer of the Fribourg Winter School in Data Analytics and Machine Learning.

## Languages and programming languages

Languages: German (mother tongue), English, French, Russian, Spanish, Bulgarian (basic)  
Programming languages: R (advanced), Stata, Knime, Python (basic)

## Refereeing and editorial tasks

**Refereeing for peer-reviewed journals:** Advances in Statistical Analysis, American Economic Review, American Journal of Epidemiology, American Political Science Review, Annals of Applied Statistics, Automation in Construction, Biometrika, Computational Statistics and Data Analysis, Computers in Biology and Medicine, De Economist, Dependence Modeling, Econometric Reviews, Econometrica, Economic Bulletin, Economics Letters, Economics of Education Review, Empirical Economics, Engineering, European Sociological Review, Evaluation Review, German Economic Review, Humanities and Social Sciences Communications, Industrial Health, International Journal of Industrial Organization, Journal of Applied Econometrics, Journal of Applied Statistics, Journal of Business and Economic Statistics, Journal of Causal Inference, Journal of Econometrics, Journal of Economics and Statistics, Journal of Health Economics, Journal of Human Resources, Journal of Labor Research, Journal of Policy Analysis and Management, Journal of Political Economy, Journal of Public Economics, Journal of the Agricultural and Applied Economics Association, Journal of the American Statistical Association, Journal of the Royal Statistical Society Series A and Series B, Labour Economics, Labour: Review of Labour Economics and Industrial Relations, Management Science, PLOS One, Political Analysis, Portuguese Economic Journal, Quantitative Economics, Review of Economic Studies, Review of Economics and Statistics, Review of Income and Wealth, Social Policy & Administration, Southern Economic Journal, Statistical Methods in Medical Research, Statistics in Medicine, Swiss Journal of Economics and Statistics, The Economists’ Voice, World Development.

**Editorial tasks for peer-reviewed journals** (current and past): Empirical Economics (associate editor), Journal of Business and Economic Statistics (associate editor), Journal of Labor Research (editorial board).

**Reviewer activities for research funds and accreditations:** Belgian Research Fund, Czech Science Foundation, DFG (German Research Fund), Independent Research Fund Denmark, Israel Science Foundation, Luxembourg National Research Fund, Mercator Research Center Ruhr, Research Foundation Flanders, Swiss National Science Foundation, Research Foundation of the University of Fribourg, AI Guild (for accrediting experts in data science).

## Presentations at International Conferences

2024	Southampton Workshop on Causal Machine Learning (invited speaker), Swiss Society of Economics and Statistics (Lucerne), European Causal Inference Meeting (Copenhagen; invited speaker)
2023	Frankfurt Econometrics Workshop (invited speaker), Munich Econometrics Workshop (invited speaker), Swiss Society of Economics and Statistics (Neuchâtel), Machine Learning in Program Evaluation, High-dimensionality and Visualization Techniques (Luxembourg Institute of Socio-Economic Research; keynote speaker), CNRS conference “Causality in Practice” (Orsay; invited speaker)
2022	Symposium zur ökonomischen Analyse der Unternehmung (Konstanz; keynote speaker), Verein für Socialpolitik (Basel; invited speaker), European Workshop on Econometrics and Health Economics (Fribourg), Econometric Society European Meeting (Milano), Counterfactual Methods for Policy Impact Evaluation (Mannheim), Swiss Society of Economics and Statistics (Fribourg), DAGStat (Hamburg; invited speaker)
2021	International Conference of the ERCIM WG on Computational and Methodological Statistics (online), Conference on Neural Information Processing Systems (online), Workshop on Machine Learning in Labor, Education, and Health Economics (online), Causal Data Science Meeting (online), European Association of Labor Economists (online), International Conference Economy & Business (Burgas), DSSV-ECDA (online; invited speaker), Australasian Meeting of the Econometric Society (online), Counterfactual Methods for Policy Impact Evaluation (online), Swiss Society of Economics and Statistics (online)
2020	International Conference of the ERCIM WG on Computational and Methodological Statistics (online), Causal Data Science Meeting (online), Econometric Society World Congress (online), EALE/SOLE/AASLE World Conference (online), Causal Machine Learning Workshop (St. Gallen)
2019	Austro-Swiss Region of the International Biometric Society (Lausanne), BFH Conference on Discrimination in the Labor Market (Bern), International Association for Applied Econometrics (Nikosia)

2018	Swiss Society of Economics and Statistics (St. Gallen), Machine Learning in Economics and Econometrics (Munich), European Causal Inference Meeting (Florence; invited speaker), Challenges in Evaluating Regional and Urban Policy (Rome; invited speaker)
2017	European Association of Labor Economists (St. Gallen), BFH Conference on Discrimination in the Labor Market (Bern), Swiss Society of Economics and Statistics (Lausanne)
2016	Rural Development Forum (Skopje; invited speaker), Workshop on Uncovering Causal Mechanisms (Munich; invited speaker), Econometric Society European Meeting (Geneva), Mediation Analysis based on Propensity Score Methods (Academia Sinica, Taipei; invited speaker)
2015	European Economic Association (Mannheim), International Association for Applied Econometrics (Thessaloniki), Statistics Winter Conference of the University of Umea (Borgafjäll; invited speaker)
2014	European Association of Labor Economists (Ljubljana), International Association for Applied Econometrics (London), Austrian Economic Association (Vienna)
2013	Econometric Society European Meeting (Gothenburg), Swiss Society of Economics and Statistics (Neuchâtel), Austrian Economic Association (Innsbruck), DAGStat (Freiburg i. Br.)
2012	SFB 884 conference on "Evaluation of Political Reforms" (Mannheim), 4th Joint IZA/IFAU Conference on Labor Market Policy Evaluation (Bonn), IAB conference "Field experiments in policy evaluation" (Nuremberg), European Association of Labor Economists (Bonn), Jena Symposium on Causality (Jena), Society of Labor Economists (Chicago), IQSS conference "Frontiers in the Analysis of Causal Mechanisms" (Harvard)
2011	IZA Conference on Labor Market Policy Evaluation (Harvard), Swiss Society of Economics and Statistics (Lucerne),
2010	Econometric Society World Meeting (Shanghai), Swiss Society of Economics and Statistics (Fribourg), European Ass. of Labour Economists/Society of Labor Economists (London), ZEW Workshop "Evaluation of Policies Fighting Social Exclusion" (Mannheim),
2009	Verein für Socialpolitik (Magdeburg), Econometric Society European Meeting (Barcelona), Swiss Society of Economics and Statistics (Geneva), cemmap conference on quantile regression (London), Austrian Economic Association (Linz), Society of Labor Economists (Boston),
2008	COST A 23 Network (Paris), Inference and Tests in Econometrics (Marseille)

### **Invited Talks and Presentations in Research Seminars**

University of Exeter (July 24 2024), University of Kassel (June 5 2024), University of Düsseldorf (June 4 2024), University of Neuchâtel (May 3 2024), Brown University (online, Mar 19 2024), IFAU Uppsala (Aug 30 2023), University of Gent (June 22 2023), University of Bern (May 31 2023), Paris School of Economics (May 25 2023), Luxembourg Institute of Socio-Economic Research (June 30 2022), University of Tübingen (June 21 2022), University of Aarhus (June 8 2022), University of Surrey (online, May 4 2022), University of Zürich (online, March 15 2022), University of Glasgow (online, Nov 12 2021), University of Innsbruck (Oct 28 2021), University College London (online, Sep 30 2021), University of Technology Sydney (online, Sep 21 2021), University of Missouri (online, Apr 30 2021), CEBA St. Petersburg (online, Apr 23 2021), University of Rotterdam (online, Mar 25 2021), Ausschuss für Ökonometrie/Verein für Socialpolitik (online, Mar 4 2021), McGill University Montreal (online, Nov 20 2020), University of Amsterdam (online, Nov 13 2020), University Duisburg-Essen (online, Nov 9 2020), University of Bolzano/Bozen (online, Oct 29 2020), University of California Irvine (online, Oct 19 2020), Monash SoDa Labs Melbourne (online, Sep 08 2020), University of Erlangen-Nuremberg (online, Jul 09 2020), University Carlos III Madrid (online, May 25 2020), Agroscope Tänikon (Jan 22 2020), University of Gothenburg (Dec 4 2019), University of Neuchâtel (Oct 11 2019), University of Sydney (Aug 19 2019), University of Melbourne (Aug 15 2019), Monash University in Melbourne (Aug 14 2019), University of Sydney (Aug 8 2019), University of Hamburg (Jun 6 2019), Luxembourg Institute of Socio-Economic Research (May 14 2019), University of Lisbon (May 6 2019), Central European University Budapest (Nov 12 2018), University of Innsbruck (Oct 18 2018), University of Munich (Oct 16 2018), EC Competence Centre on Microeconomic Evaluation in Ispra (Oct 1 2018), Frisch Centre Oslo (Mar 21 2018), ETH Zurich (Jan 25 2018), University of St. Gallen (Nov 20 2017), University of Constance (Jun 13 2017), University of Bonn (Dec 6 2016), European Institute in Florence (Oct 10 2016), Academia Sinica Taipei (Jun 7 2016), University of Xiamen (Jun 1 2016), Hong Kong University of Science and Technology (May 30 2016), CREST Paris (May 19 2016), University of Mannheim (May 9 2016), WU Vienna (May 4 2016), University of Zurich (May 3 2016), IUMSP Lausanne (Mar 24 2016), FBK-IRVAPP Trento (Dec 10 2015), University of Innsbruck (Dec 9 2015), University of Nottingham (Nov 19 2015), University of Bristol (Nov 18 2015), Institute for Advanced Studies Vienna (May 7 2015), University of Luxembourg (Apr 15 2015), Tinbergen Institute Rotterdam (Jan 22 2015), University of Salzburg (Dec 9 2014), Tinbergen Institute Amsterdam (Nov 25 2014), University of Otago (Aug 11 2014), University of Sydney (Jul 31 2014), University of Technology in Sydney (Jul 30 2014), University of Melbourne (Jul 24 2014), University of Linz (Jun 04 2014), University of Aarhus (Apr 02 2014), University of Mainz (Mar 04 2014), University of Fribourg (Dec 10 2013), ETH Zurich (Dec 04 2013), Karlsruhe Institute of Technology (Nov 21 2013), University of Hohenheim (Apr 16 2013), University of Lausanne (Mar 12 2013), University of Bern (Jan 29 2013), Bergen Norwegian School of Economics (Nov 7 2012), University of Bern (Oct 9 2012), IFAU Uppsala (Aug 22 2012), University of Munich (Jul 10 2012), Boston College (Apr 27 2012), MIT (Mar 1 2012), Harvard Econ Dept. (Feb 06 2012), Brown University (Nov 10 2011), Harvard Econ Dept (Sep 12 2011), University of Mannheim (Sep 01 2010), Graduate Institute of Geneva (May 5 2010), University of Linz (Apr 28 2010), University of Freiburg i. Br. (Apr 21 2010), University of Innsbruck (May 13 2009).

### **Papers and publications**

#### **Publications in peer-reviewed scientific journals**

"[An Introduction to Causal Discovery](#)", forthcoming in the *Swiss Journal of Economics and Statistics*.

"The Austrian Political Advertisement Scandal: Searching for Patterns of "Journalism for Sale"", with P. Balluff, J. Bernhard, H. G. Boomgaarden, J.-M. Eberl, A. Fahr, and S. Oberhänsli, forthcoming in *The International Journal of Press/Politics*.

"[Testing Monotonicity of Mean Potential Outcomes in a Continuous Treatment with High-Dimensional Data](#)", with Y.-C. Hsu, Y.-Y. Lee, and C.-A. Liu, forthcoming in the *Review of Economics and Statistics*.

"[The Finite Sample Performance of Instrumental Variable-Based Estimators of the Local Average Treatment Effect When Controlling for Covariates](#)", with H. Bodory and M. Lechner, forthcoming in *Computational Economics*.

"Causal Machine Learning in Marketing", *International Journal of Business & Management Studies*, 5 (7), 1-6, 2024.

"Double machine learning for sample selection models", with M. Bia and L. Lafférs, *Journal of Business and Economic Statistics*, 42 (3), 958-969, 2024.

"A Wild Bootstrap Algorithm for Propensity Score Matching Estimators", with H. Bodory, L. Camponovo, and M. Lechner, *Statistics and Probability Letters*, 208, 110069, 2024.

"It's Never Too LATE: A New Look at Local Average Treatment Effects with or Without Defiers", with C. Dahl and G. Mellace, *Econometrics Journal*, 26 (3), 378-404, 2023.

"Flagging cartel participants with deep learning based on convolutional neural networks", with D. Imhof, *International Journal of Industrial Organization*, 89, 102946, 2023.

"A Machine Learning Approach for Flagging Incomplete Bid-rigging Cartels", with H. Wallimann and D. Imhof, *Computational Economics*, 62 (4), 1669-1720, 2023.

"The fiscal response to revenue shocks", with S. Berset and M. Schelker, *International Tax and Public Finance*, 30 (3), 814-848, 2023.

"When does gender occupational segregation start? An experimental evaluation of the effects of gender and parental occupation in the apprenticeship labor market", with A. Fernandes and C. Plaza, *Economics of Education Review*, 95, 102399, 2023.

"How residence permits affect the labor market attachment of foreign workers: Evidence from a migration lottery in Liechtenstein", with B. Buechel and S. Gangl, *European Economic Review*, 152, 104377, 2023.

"How causal machine learning can leverage marketing strategies: Assessing and improving the performance of a coupon campaign", with H. Langen, *PLoS ONE*, 18 (1): e0278937, 2023.

"Bounds on direct and indirect effects under treatment/mediator endogeneity and outcome attrition", with L. Lafférs, *Econometric Reviews*, 41 (10), 1141-1163, 2022.

"Perceived Anonymity and Cheating in an Online Experiment", with E. Denisova-Schmidt and Y. Prytula, *Eastern European Economics*, 60 (6), 540-558, 2022.

"Evaluating (weighted) dynamic treatment effects by double machine learning", with H. Bodory and L. Lafférs, *Econometrics Journal*, 25 (3), 628-648, 2022.

"Causal mediation analysis with double machine learning", with H. Farbmacher, L. Lafférs, H. Langen, and M. Spindler, *Econometrics Journal*, 25 (2), 277-300, 2022.

"Transnational machine learning with screens for flagging bid-rigging cartels", with D. Imhof and R. Ishii, *Journal of the Royal Statistical Society Series A*, 185 (3), 1074-1114, 2022.

"Business analytics meets artificial intelligence: Assessing the demand effects of discounts on Swiss train tickets", with J. Meier and H. Wallimann, *Transportation Research Part B*, 163, 22-39, 2022.

"Direct and Indirect Effects based on Changes-in-Changes", with M. Schelker and A. Strittmatter, *Journal of Business and Economic Statistics*, 40 (1), 432-443, 2022.

"On the plausibility of the latent ignorability assumption", *Econometrics*, 9 (4), 47, 1-7, 2021.

"Time Preferences across Language Groups: Evidence on Intertemporal Choices from the Swiss Language Border", with H. Herz, T. Maillard-Bjedov, and S. Tyahlo, *Economic Journal*, 131 (639), 2920-2954, 2021.

"Instrument-based estimation with binarized treatments: issues and tests for the exclusion restriction", with M. E. Andresen, *Econometrics Journal*, 24 (3), 536-558, 2021.

"Assessing the effects of seasonal tariff-rate quotas on vegetable prices in Switzerland", with D. Loginova and M. Portmann, *Journal of Agricultural Economics*, 72 (2), 607-627, 2021.

"A framework for separating individual-level treatment effects from spillover effects", with A. Steinmayr, *Journal of Business and Economic Statistics*, 39 (2), 422-436, 2021.

"Gender Differences in Wage Expectations", with A. Fernandes and G. Vaccaro, *PLoS ONE* 16 (6): e0250892, 2021.

"Combining experimental evidence with machine learning to assess anti-corruption educational campaigns among Russian university students", with E. Denisova-Schmidt, E. Leontyeva, and A. Solovyeva, *Empirical Economics*, 60 (1), 1661-1684, 2021.

"Direct and indirect effects of continuous treatments based on generalized propensity score weighting", with Y.-C. Hsu, Y.-Y. Lee, and L. Lettry, *Journal of Applied Econometrics*, 35 (7), 814-840, 2020.

"Direct and indirect effects under sample selection and outcome attrition", with A. Solovyeva, *Econometrics*, 8 (4), 44, 1-25, 2020.

"Endogeneity and Non-Response Bias in Treatment Evaluation: Nonparametric Identification of Causal Effects by Instruments", with H. Fricke, M. Frölich, and M. Lechner, *Journal of Applied Econometrics*, 35 (5), 481-504, 2020.

"Timing matters: The Impact of Response Measures on COVID-19-Related Hospitalization and Death Rates in Germany and Switzerland", with H. Langen, *Swiss Journal of Economics and Statistics*, 156 (10), 1-19, 2020.

"On the sensitivity of wage gap decompositions", with A. Solovyeva, *Journal of Labor Research*, 41 (1), 1-33, 2020.

"The Finite Sample Performance of Inference Methods for Propensity Score Matching and Weighting Estimators", with H. Bodory, L. Camponovo, and M. Lechner, *Journal of Business and Economic Statistics*, 38 (1), 183-200, 2020.

"Including Covariates in the Regression Discontinuity Design", with M. Frölich, *Journal of Business and Economic Statistics*, 37 (4), 736-748, 2019.

"Direct and indirect effects based on difference-in-differences with an application to political preferences following the Vietnam draft lottery", with E. Deuchert and M. Schelker, *Journal of Business and Economic Statistics*, 37 (4), 710-720, 2019.

"The effects of anti-corruption videos on attitudes towards corruption in a Ukrainian online survey", with E. Denisova-Schmidt and Y. Prytula, *Eurasian Geography and Economics*, 60 (3), 304-332, 2019.

"Kausalanalyse mit maschinellem Lernen (English title: Combining Causal Analysis with Machine Learning)", HMD Praxis der Wirtschaftsinformatik, 57, 106-116, 2019.

"Machine learning with screens for detecting bid-rigging cartels", with D. Imhof, *International Journal of Industrial Organization*, 65, 277-301, 2019.

"Evaluating an information campaign about rural development policies in (FYR) Macedonia", with A. Kotevska, A. Martinovska Stojcheska, and A. Solovyeva, *Agricultural and Resource Economics Review*, 48 (1), 117-141, 2019.

"Nonparametric estimation of natural direct and indirect effects based on inverse probability weighting", with Y.-C. Hsu and T.-C. Lai, *Journal of Econometric Methods*, 8 (1), 2019.

"Local average and quantile treatment effects under endogeneity based on instruments: a review", with K. Wüthrich, *Journal of Econometric Methods*, 8 (1), 2019.

"Direct and indirect effects of training vouchers for the unemployed", with M. Lechner and A. Strittmatter, *Journal of the Royal Statistical Society Series A*, 181 (2), 441-463, 2018.

"Direct and indirect treatment effects: Causal chains and mediation analysis with instrumental variables", with M. Frölich, *Journal of the Royal Statistical Society Series B*, 79 (5), 1645-1666, 2017.

"Testing the validity of the compulsory schooling law instrument", with B. Bolzern, *Economics Letters*, 159, 23-27, 2017.

"The Finite Sample Performance of Semi- and Nonparametric Estimators for Treatment Effects and Policy Evaluation", with M. Frölich and M. Wiesenfarth, *Computational Statistics & Data Analysis*, 115, 91-102, 2017.

"A cautionary tale about control variables in IV estimation", with E. Deuchert, *Oxford Bulletin of Economics and Statistics*, 79 (3), 411-425, 2017.

"Why do tougher caseworkers increase employment? The role of programme assignment as a causal mechanism", with M. Lechner and G. Mellace, *Review of Economics and Statistics*, 99 (1), 180-183, 2017.

"Does preschool boost the development of minority children? The case of Roma children", with C. Felfe, *Journal of the Royal Statistical Society Series A*, 180 (2), 475-502, 2017.

"Sharp IV bounds on average treatment effects on the treated and other populations under endogeneity and noncompliance", with L. Laffers and G. Mellace, *Journal of Applied Econometrics*, 32 (1), 56-79, 2017.

"The Effect of Firms' Partial Retirement Policies on the Labour Market Outcomes of their Employees", with M. Lechner and C. Wunsch, *Industrial and Labor Relations Review*, 69 (5), 1216-1248, 2016.

"On the Development of Students' Attitudes towards Corruption and Cheating in Russian Universities", with E. Denisova-Schmidt and E. Leontyeva, *European Journal of Higher Education*, 6 (2), 128-143, 2016.

"An Experimental Evaluation of an Anti-Corruption Intervention among Ukrainian University Students", with E. Denisova-Schmidt and Y. Prytula, *Eurasian Geography and Economics*, 56 (6), 713-734, 2016.

"Do Anti-Corruption Educational Campaigns Reach Students? Some Evidence from Russia and Ukraine", with E. Denisova-Schmidt and E. Leontyeva, *Educational Studies Moscow*, 1, 61-83, 2016.

"The finite sample performance of estimators for mediation analysis under sequential conditional independence", with M. Lechner and G. Mellace, *Journal of Business and Economic Statistics*, 34 (1), 139-160, 2016.

"A test of the conditional independence assumption in sample selection models", with B. Melly, *Journal of Applied Econometrics*, 30 (7), 1144–1168, 2015.

"Workplace health promotion and labour market performance of employees", with M. Lechner and C. Wunsch, *Journal of Health Economics*, 43, 170–189, 2015.

"Radius matching on the propensity score with bias adjustment: finite sample behaviour, tuning parameters and software implementation", with M. Lechner and A. Steinmayr, *Empirical Economics*, 49 (1), 1–31, 2015.

"Causal pitfalls in the decomposition of wage gaps", *Journal of Business and Economic Statistics*, 33 (2), 179–191, 2015.

"Testing instrument validity for LATE identification based on inequality moment constraints", with G. Mellace, *Review of Economics and Statistics*, 97 (2), 398–411, 2015.

"Testing the validity of the sibling sex ratio instrument", *LABOUR: Review of Labour Economics and Industrial Relations*, 29 (1), 1–14, 2015.

"Sharp bounds on causal effects under sample selection", with G. Mellace, *Oxford Bulletin of Economics and Statistics*, 77 (1), 129–151, 2015.

"Should Welfare Administration be Centralized or Decentralized? Evidence from a Policy Experiment", with B. Boockmann, S. Thomsen, T. Walter, and C. Göbel, *German Economic Review*, 16 (1), 13–42, 2015.

"Treatment evaluation with multiple outcome periods under endogeneity and attrition", with M. Frölich, *Journal of the American Statistical Association*, 109 (508), 1697–1711, 2014.

"Testing exclusion restrictions and additive separability in sample selection models", with G. Mellace, *Empirical Economics*, 47 (1), 75–92, 2014.

"Identifying causal mechanisms (primarily) based on inverse probability weighting", *Journal of Applied Econometrics*, 29 (6), 920–943, 2014.

"Regional Differences in Perceived Corruption among Ukrainian Firms", with E. Denisova-Schmidt, *Eurasian Geography and Economics*, 55 (1), 10–36, 2014.

"Sensitivity checks for the local average treatment effect", *Economics Letters*, 123 (2), 220–223, 2014.

"Treatment evaluation in the presence of sample selection", *Econometric Reviews*, 33 (8), 869–905, 2014.

"A simple test for the ignorability of non-compliance in experiments", *Economics Letters*, 120 (3), 389–391, 2013.

"The performance of estimators based on the propensity score", with M. Lechner and C. Wunsch, *Journal of Econometrics*, 175 (1), 1–21, 2013.

"Identification of average treatment effects in social experiments under alternative forms of attrition", *Journal of Educational and Behavioral Statistics*, 37 (3), 443–474, 2012.

"Does Leaving Welfare Improve Health? Evidence for Germany", with M. Lechner and C. Wunsch, *Health Economics*, 20 (4), 484–504, 2011.

"Do German Welfare-to-Work Programmes Reduce Welfare Dependency and Increase Employment?", with M. Lechner, C. Wunsch, and T. Walter, *German Economic Review*, 12 (2), 182–204, 2011.

"Testing for covariate balance using nonparametric quantile regression and resampling methods", *Journal of Applied Statistics*, 38 (12), 2881–2899, 2011.

#### **Invited contributions**

"Disentangling policy effects into causal channels", *IZA World of Labor*, 2016.

#### **Books**

Huber, M. (2023): *Causal Analysis: Impact Evaluation and Causal Machine Learning with Applications in R*. MIT Press.

#### **Book chapters**

Huber, M. (2024): "Mediationsanalyse", in Gertheiss, J., Schmid, M., and Spindler, M.: *Moderne Verfahren der Angewandten Statistik*, Springer Spektrum.

Huber, M. (2021): "An introduction to flexible methods for policy evaluation", in Hashimzade, N., and Thornton, M. A.: *Handbook of Research Methods and Applications in Empirical Microeconomics*, Edward Elgar Publishing.

Huber, M. (2021): "Mediation Analysis", in Zimmermann, K. F.: *Handbook of Labor, Human Resources and Population Economics*, Springer Nature Switzerland AG.

Denisova-Schmidt, E., Huber, M., Pohorila, N., Prytula, Y., and Tyahlo, S. (2019): "Recent Regional Economic Development in Ukraine: Does History Help to Explain the Differences?", in Myshlovska, O., and Schmid, U.: *Regionalism without Regions - Re-conceptualizing Ukraine's Heterogeneity*, CEU Press.

Denisova-Schmidt, E., Huber, M., and Prytula, Y. (2017): "Corruption among Ukrainian Businesses: Do Firm Size, Industry and Region Matter?", in Leither, J., and Meissner, H.: *Political Risks and their Impacts on the Business Environment of BSR Countries*, Routledge.

## Software

"The causalweight package for causal inference in R", with H. Bodory, SES Working Paper 493, University of Fribourg, 2018. See [here for the manual](#) of the most recent version of the causalweight package.

## Working papers

"Learning control variables and instruments for causal analysis in observational data", with N. Apfel, J. Hatamyar, and J. Kueck, arXiv preprint 2407.04448, 2024.

"Testing identification in mediation and dynamic treatment models", with K. Kloiber and L. Lafférs, arXiv preprint 2406.13826, 2024.

"A joint test of unconfoundedness and common trends", with E.-M. Oeß, arXiv preprint 2404.16961, 2024.

"Machine Learning for Staggered Difference-in-Differences and Dynamic Treatment Effect Heterogeneity", with J. Hatamyar, N. Kreif, and R. Rocha, arXiv preprint 2310.11962, 2023.

"Doubly Robust Estimation of Direct and Indirect Quantile Treatment Effects with Machine Learning", with Y.-C. Hsu and Y.-M. Yen, arXiv preprint 2307.01049, 2023.

"Treatment Effect Analysis for Pairs with Endogenous Treatment Takeup", with M. Kormos and R. Lieli, arXiv preprint 2301.04876, 2023.

"Detecting Grouped Local Average Treatment Effects and Selecting True Instruments", with N. Apfel, H. Farbmacher, R. Groh, and H. Langen, arXiv preprint 2207.04481, 2022.

"Testing the identification of causal effects in observational data", with J. Kueck, arXiv preprint 2203.15890, 2022.

"From homemakers to breadwinners? How mandatory kindergarten affects maternal labour market attachment", with S. Gangl, arXiv preprint 2111.14524, 2021.

"How war affects political attitudes: Evidence from eastern Ukraine", with S. Tyahlo, SES Working Paper 472, University of Fribourg, 2016.