Carlos Cinelli

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Employment

Academic Appointments

2021- *Assistant Professor*, Department of Statistics, University of Washington

Other professional experience

2014-2016 *Economist*, Central Bank of Brazil, Systemic Risk Division
2012-2014 *Economist*, Central Bank of Brazil, Foreign Investment Division

Education

2016-2021 *PhD, Statistics*, University of California, Los Angeles (UCLA)
2010-2012 *MSc, Economics*, University of Brasilia (UnB)

Peer Reviewed Publications

2022+ 13. **Carlos Cinelli**, Andrew Forney and Judea Pearl. "A Crash Course in Good and Bad Controls." *Sociological Methods and Research*, 2022+.

2022 12. Lang Liu, **Carlos Cinelli**, and Zaid Harchaoui. "Orthogonal Statistical Learning with Self-Concordant Loss." *Annual Conference on Learning Theory (COLT)*, 2022.

2022 11. **Carlos Cinelli**, N. LaPierre, B. Hill, S. Sankararaman and E. Eskin. "Robust Mendelian randomization in the presence of residual population stratification, batch effects and horizontal pleiotropy." *Nature Communications*, 2022.

2021 10. **Carlos Cinelli** and Judea Pearl. "Generalizing Experimental Results by Leveraging Knowledge of Mechanisms." *European Journal of Epidemiology*, 2021.

2021 9. Chi Zhang, **Carlos Cinelli**, Bryant Chen and Judea Pearl. "Exploiting Equality Constraints in Causal Inference." *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2021.

2020 8. **Carlos Cinelli** and Chad Hazlett. "Making Sense of Sensitivity: Extending Omitted Variable Bias." *Journal of the Royal Statistical Society, Series B (Statistical Methodology)*, 2020.

2020 7. Daniel Kumor, **Carlos Cinelli**, and Elias Bareinboim. "Efficient Identification in Linear Structural Causal Models with Auxiliary Cutsets." *International Conference of Machine Learning (ICML)*, 2020.

2019 6. **Carlos Cinelli**, D. Kumor, B. Chen, J. Pearl and E. Bareinboim. "Sensitivity Analysis of Linear Structural Causal Models." *International Conference of Machine Learning (ICML)*, 2019.

2018 5. **Carlos Cinelli** and Judea Pearl. "On the utility of causal diagrams in modeling attrition: a practical example." *Epidemiology*, 29, e50-e51, 2018.

Pre-PhD Publications

2018 4. **Carlos Cinelli** and Rogerio Arthmar. "The debating tradition in Britain and the new political economy: William Thompson and John Stuart Mill at the London Co-operative Society in 1825." *Nova Economia*, v.28 (2), p.609-636, 2018.

2013 3. Rogerio Arthmar and **Carlos Cinelli** (in portuguese). "The classical economics between laissez-faire and socialism." *EconomiA*, v. 14, p. 227-252, 2013.

2011 2. **Carlos Cinelli** (in portuguese). "Voluntary transfers and municipal corruption in Brazil: preliminary evidence from the irregular accounts registry of the Federal Court of Accounts." *Revista Economia e Tecnologia*, v. 7, p. 89-97, 2011.

2010 1. **Carlos Cinelli** and Rogerio Arthmar (in portuguese). "When the classical liberal and the socialist confront each other: Bastiat, Proudhon and capital rent." *Nova Economia*, v. 20, p. 509-541, 2010.

Pre-Prints & Manuscripts under review

Carlos Cinelli, Jeremy Ferwerda and Chad Hazlett. "`sensemakr`: Sensitivity Analysis Tools for OLS in `R` and `Stata`." *Submitted.*

Carlos Cinelli and Chad Hazlett. "An Omitted Variable Bias Framework for Sensitivity Analysis of Instrumental Variables."

Victor Chernozhukov, **Carlos Cinelli**, Whitney Newey, Amit Sharma, and Vasilis Syrgkanis. "Omitted Variable Bias in Machine Learned Causal Models."

Awards

2020 UCLA Dissertation Year Fellowship (DYF) ($\approx \$37,000$)

Software

Web Apps

`Regression sensitivity analysis`: web app with suite of sensitivity analysis tools for OLS.

stata Modules

`sensemakr`: Sensitivity Analysis Tools for OLS (stata)

Python Packages

`sensemakr`: Sensitivity Analysis Tools for OLS (Python)

R Packages

`sensemakr`: Sensitivity Analysis Tools for OLS

`mrsensemakr`: Sensitivity Analysis Tools Mendelian Randomization

`generalizing`: Generalizing Experimental Results By Leveraging Knowledge of Mechanisms

`NetworkRiskMeasures`: risk measures for (financial) networks

benford.analysis: Benford's law for data validation and forensic analytics

`sValues`: measures of sturdiness of regression coefficients

Conferences, Seminars & Invited Talks

2021 University of Washington, Department of Biostatistics Seminar, Online
2021 Carnegie Mellon University, Machine Learning (Duolingo) Seminar, Online
2021 Causal Data Science Meeting (CDSM 2021), Online
2021 London School of Economics, Department of Methodology Seminar, Online
2021 University of Washington, CSSS Seminar, Seattle, Washington
2021 Online Causal Inference Seminar (OCIS), Online
2021 Pacific Causal Inference Conference 2021, Online
2021 International Conference on Knowledge Discovery & Data Mining (KDD 2021), Online
2021 Joint Statistical Meetings (JSM 2021), Online
2021 European Causal Inference Meeting (EuroCIM 2021), Online
2021 Federal University of Pelotas (UFPel), Economics Seminar, Online
2021 Annual Meeting of the Society for Epidemiologic Research (SER 2021), Online
2020 Ecole Polytechnique, France, Online
2020 Healthdata Bootcamp, Online
2020 Causal Data Science Meeting (CDSM 2020), Online
2020 Annual Meeting of the American Society of Human Genetics (ASHG 2020), Online
2020 Joint Statistical Meetings (JSM 2020), Online
2020 Annual Meeting of the Society for Political Methodology (PolMeth XXXVII), Online
2020 International Conference on Machine Learning (ICML 2020), Online
2020 useR! 2020, Online
2020 American Causal Inference Conference (ACIC 2020), Austin, Texas *[Postponed due to COVID-19]*
2019 Innovative Methods with Big Data and Artificial Intelligence (IM DATA 2019), Pasadena, California
2019 Southern California Methods Conference (SoCal 2019), Riverside, California
2019 University of Southern California, Los Angeles, California
2019 Joint Statistical Meetings (JSM 2019), Denver, Colorado
2019 International Conference of Machine Learning (ICML 2019), Long Beach, California
2019 RAND Corporation, Center for Causal Inference Seminar, Santa Monica, California

2019 University of São Paulo (USP), Statistics Seminar, São Paulo, Brazil
2019 Insper, Data Science Seminar, São Paulo, Brazil
2018 Joint Statistical Meetings (JSM 2018), Vancouver, British Columbia, Canada
2018 Annual Meeting of the Society for Political Methodology (PolMeth XXXV), BYU, Provo, Utah
2017 BITSS Annual Meeting, Berkeley, California
2017 Causal Inference from Neuroscience to Computer Science, UCLA, Los Angeles, California
2017 Joint Statistical Meetings (JSM 2017), Baltimore, Maryland
2016 useR! 2016, Stanford, California
2016 University of Brasilia (UnB), Statistics Seminar, Brasília, Brazil
2015 Model Development, Validation and Model Risk Management, Santiago, Chile
2015 useR! 2015, Aalborg, Denmark
2015 Workshop of Systemic Risk and Financial Networks, IPAM/UCLA, Los Angeles, California
2014 Catholic University of Brasilia (UCB), Economics Seminar, Brasília, Brazil
2014 useR! 2014, Los Angeles, California
2013 26th Annual Conference of the History of Economic Thought Society, Perth, Australia
2012 XL National Meeting of Economics, Porto de Galinhas, Brazil
2012 IV International Conference of Economic History, São Paulo, Brazil
2012 XVII National Meeting of Political Economy, Rio de Janeiro, Brazil
2011 XVII Brazilian Symposium on Water Resources, Maceió, Brazil
2011 II Meeting of Economics of Espirito Santo, Vitória, Brazil
2010 XVII National Meeting of Political Economy, São Luís, Brazil
2009 XXXVII National Meeting of Economics, Foz do Iguaçu, Brazil

Academic Service

Editorial Board: Journal of Causal Inference.

Manuscript Referee: JRSS-B, Statistical Science, International Journal of Biostatistics, Journal of Causal Inference, ICML, Neurips, AAAI, AISTATS, CLeaR, Political Analysis, Collabra: Psychology, Epidemiology, European Journal of Epidemiology, International Journal of Epidemiology, American Journal of Epidemiology, PCORI, Annals of Operations Research, Nova Economia.

Teaching Experience

2021- University of Washington, Seattle

STATS 504 — Applied Regression (Graduate)
STAT 564 — Bayesian Statistics for the Social Sciences (Graduate)
STAT 396 — Finite Markov Chains and Monte-Carlo Methods (Undergraduate Upper Division)

2016-2020 University of California, Los Angeles

STATS 256 — Causality (Graduate) / Special Reader
STATS 100A — Introduction to Probability Theory (Undergraduate Upper Division) / TA
STATS 10 — Introduction to Statistical Reasoning (Undergraduate Lower Division) / Reader

2012-2016 University of the Central Bank of Brazil

Statistics and R programming / Full Course Development and Professor

2015-2016 Brazilian Institute of Research and Data Analysis

Introduction to programming with R / Full Course Development and Professor

Other Technical Work

2012-2016 Software for the Central Bank of Brazil: statistical modeling for foreign investment surveys, house market prediction, contagion, stress tests and systemic risk analysis.
2015 Financial Stability Report, Contagion on the Real Sector and Systemic Risk Analysis
2015 Census of Foreign Capital in Brazil
2014 Census of Foreign Capital in Brazil

Other Training

2013 Applied Bayesian Econometrics for Central Bankers, Bank of England, CCBS, London
2012 Balance of Payments and International Investment Statistics, CEMLA, Mexico City