CARLOS CINELLI

Assistant Professor, Department of Statistics, University of Washington, Seattle Website: carloscinelli.com — Email: cinelli@uw.edu — Phone: 310-467-4375

EMPLOYMENT

University of Washington, Seattle

2023- *Affiliate Faculty*, eScience Institute

2021- Affiliate Faculty, Center for Statistics and the Social Sciences

2021- Assistant Professor, Department of Statistics

CENTRAL BANK OF BRAZIL

2014-2016 Economist, Systemic Risk Division

2012-2014 Economist, Foreign Investment Division

EDUCATION

2016-2021 PHD, Statistics, University of California, Los Angeles (UCLA)

2010-2012 MSc, Economics, University of Brasilia (UnB)

Pre-Prints & Manuscripts under review

- 21. Carlos Cinelli, Avi Feller, Guido Imbens, Edward Kennedy, Sara Magliacane and Jose Zubizarreta. "Challenges in Statistics: Causality and Causal Inference". *Submitted*.
- 20. Philipp Bach, Victor Chernozhukov, Carlos Cinelli, Lin Jia, Sven Klaassen, Nils Skotara, and Martin Spindler. "Sensitivity Analysis for Causal ML: A Use Case at Booking.com." *Submitted*.
- 19. Danielle Tsao, Ronan Perry and Carlos Cinelli. "On the minimum strength of (unobserved) covariates to overturn an insignificant result." *Revise and Resubmit, Statistical Science.*
- 18. Victor Chernozhukov, Carlos Cinelli, Whitney Newey, Amit Sharma, and Vasilis Syrgkanis. "Omitted Variable Bias in Machine Learned Causal Models." *Revise and Resubmit, Review of Economic and Statistics*.

PEER REVIEWED PUBLICATIONS

- 2025 17. Nicholas Irons, Carlos Cinelli. "Causally Sound Priors for Binary Experiments." Bayesian Analysis.
- 2025 16. **Carlos Cinelli** and Chad Hazlett. "An Omitted Variable Bias Framework for Sensitivity Analysis of Instrumental Variables." *Biometrika*.
- 2024 15. Carlos Cinelli, Jeremy Ferwerda and Chad Hazlett. "sensemakr: Sensitivity Analysis Tools for OLS in R and Stata." Observational Studies.
- 2024 14. Carlos Cinelli, Andrew Forney and Judea Pearl. "A Crash Course in Good and Bad Controls." Sociological Methods and Research.
- 2022 13. Lang Liu, Carlos Cinelli, and Zaid Harchaoui. "Orthogonal Statistical Learning with Self-Concordant Loss." Annual Conference on Learning Theory (COLT).
- 2022 12. 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.
- 2021 11. **Carlos Cinelli** and Judea Pearl. "Generalizing Experimental Results by Leveraging Knowledge of Mechanisms." *European Journal of Epidemiology*.
- 2021 10. Chi Zhang, Carlos Cinelli, Bryant Chen and Judea Pearl. "Exploiting Equality Constraints in Causal Inference." *International Conference on Artificial Intelligence and Statistics (AISTATS).*
- 9. Carlos Cinelli and Chad Hazlett. "Making Sense of Sensitivity: Extending Omitted Variable Bias." *Journal of the Royal Statistical Society, Series B (Statistical Methodology).*
- 8. Daniel Kumor, Carlos Cinelli, and Elias Bareinboim. "Efficient Identification in Linear Structural Causal Models with Auxiliary Cutsets." *International Conference of Machine Learning (ICML)*.
- 7. Carlos Cinelli, D. Kumor, B. Chen, J. Pearl and E. Bareinboim. "Sensitivity Analysis of Linear Structural Causal Models." *International Conference of Machine Learning (ICML)*.
- 6. **Carlos Cinelli** and Judea Pearl. "On the utility of causal diagrams in modeling attrition: a practical example." *Epidemiology*.

BOOK REVIEWS

5. Carlos Cinelli. "A First Course in Linear Model Theory." The American Statistician.

PRE-PHD PUBLICATIONS

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.

- 3. Rogerio Arthmar and Carlos Cinelli (in portuguese). "The classical economics between laissez-faire and socialism." *EconomiA*.
- 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.*
- 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*.

GRANTS & AWARDS

- 2024-2027 National Science Foundation. Directorate for Social, Behavioral, and Economic Sciences. Division of Social and Economic Sciences. Methodology, Measurement, and Statistics (MMS). Role: PI. Amount: \$350,000.
- 2024-2025 Royalty Research Fund. Role: PI. Amount: \$39,663.
- 2023 IMS New Researcher Travel Award.
- 2021-2024 Sloan Foundation, Interactive Causal Learning Conference. Role: co-PI. Amount: \$249, 100.
- 2020 UCLA Dissertation Year Fellowship (DYF). Amount: \approx \$37,000.

SOFTWARE

R PACKAGES

- 11. sensemakr: Sensitivity Analysis Tools for OLS
- 10. dml.sensemakr: Sensitivity Analysis tools for Causal Machine Learning
- 9. iv.sensemakr: Sensitivity Analysis tools for Instrumental Variables
- 8. mrsensemakr: Sensitivity Analysis Tools Mendelian Randomization
- 7. generalizing: Generalizing Experimental Results By Leveraging Knowledge of Mechanisms
- 6. NetworkRiskMeasures: risk measures for (financial) networks
- 5. benford.analysis: Benford's law for data validation and forensic analytics
- 4. sValues: measures of sturdiness of regression coefficients

STATA MODULES

3. sensemakr: Sensitivity Analysis Tools for OLS (stata)

PYTHON PACKAGES

2. sensemakr: Sensitivity Analysis Tools for OLS (Python)

Web Apps

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

Conferences, Seminars & Invited Talks

- 2025 98. European Causal Inference Meeting (EuroCIM 2025), Ghent, Belgium
- 2024 97. Brazilian Econometrics Conference (SBE 2024), Natal, Brazil
- 2024 96. Syracuse University, Department of Economics, Syracuse, New York
- 2024 95. Cornell University, Department of Statistics, Ithaca, New York
- 2024 94. Western North American Region of The Int. Biom. Society (WNAR 2024), Fort Collins, Colorado
- 2024 93. Duke University, Department of Statistics, Durham, North Carolina
- 2024 92. National Academies of Sciences, Washington, D.C.
- 2024 91. Penn State University, Department of Statistics, Centre County, Pennsylvania
- 2024 90. University of Washington, Department of Statistics, Seattle, Washington
- 89. Machine Learning in Economics Summer Conference, Chicago, Illinois
- 2024 88. Joint Statistical Meetings (JSM 2024), Portland, Oregon
- 2024 87. Annual Meeting of the Society for Political Methodology (PolMeth 2024), Riveside, California
- 2024 86. Pacific Causal Inference Conference (PCIC 2024), Shanghai, China
- 2024 85. International Society for Bayesian Analysis, World Meeting (ISBA 2024), Venice, Italy
- 2024 84. CSSS 25th Anniversary Conference, Seattle, Washington
- 2024 83. American Causal Inference Conference (ACIC 2024), Seattle, Washington
- 2024 82. Berkeley Methods Workshop, University of California, Berkeley
- 2024 81. European Causal Inference Meeting (EuroCIM 2024), Copenhagen, Denmark
- 2023 80. Brazilian Econometrics Conference (SBE 2023), Rio de Janeiro, Brazil
- 2023 79. Interactive Causal Learning Conference (ICLC 2023), Boca Raton, Florida
- 2023 78. Causal Data Science Meeting (CDSM 2023), Online

- 2023 77. Johns Hopkins University, Causal Inference Working Group, Online
- 2023 76. McMaster University, Centre for Social Research Innovation, Spark Talk, Online
- 2023 75. American Political Science Association Annual Meeting (APSA 2023), Los Angeles, California
- 2023 74. RAND Corporation, Center for Causal Inference Symposium, Online
- 2023 73. Joint Statistical Meetings (JSM 2023), Toronto, Canada
- 2023 72. New Researchers Conference (NRC 2023) Toronto, Canada
- 2023 71. European Meeting of Statisticians (EMS 2023), Warsaw, Poland
- 2023 70. Western North American Region of The Int. Biom. Society (WNAR 2023), Anchorage, Alaska
- 2023 69. Causality in Practice, Institute Pascal, Saclay, France
- 2023 68. Aarhus University, Centre of Integrative Business Psychology, Online
- 2023 67. American Causal Inference Conference (ACIC 2023), Austin, Texas
- 2023 66. AirBnB, Data Science Seminar, Online
- 2023 65. University of Washington, Stat. and ML Approaches for the Social Sciences, Online
- 2022 64. Int. Conference on Computational and Methodological Statistics (CMStatistics 2022), Online
- 2022 63. Stanford, Stanford Political Methodology Workshop, Palo Alto, California
- 2022 62. Causal Data Science Meeting (CDSM 2022), Online
- 2022 61. University of Jyvoaskyla, Statistics Seminar, Online
- 2022 60. Iowa State University, Department of Economics Seminar, Ames, Iowa
- 2022 59. ETH Zurich, Online Seminar in Economics and Data Science, Online
- 2022 58. Joint Statistical Meetings (JSM 2022), Washington D.C
- 2022 57. Federal University of Pernambuco (UFPE), Seminar at Lab. Ciência Política Comp. e Exp., Online
- 2022 56. Annual Meeting of the Society for Political Methodology (PolMeth 2022), Online
- 2022 55. NuBank, Causal Inference Meetup, Online
- 2022 54. University of Bristol, Integrative Epidemiology Unit, Online
- 2022 53. American Causal Inference Conference (ACIC 2022), Berkeley, California
- 2022 52. Interactive Causal Learning Conference (ICLC 2022), Washington D.C.
- 2022 51. MIT, Department of Economics, Invited Lecture, Online
- 2022 50. University of Washington, Department of Economics, Econometrics Seminar, Online

- 2021 49. University of Washington, Department of Biostatistics Seminar, Online
- 2021 48. Carnegie Mellon University, Machine Learning (Duolingo) Seminar, Online
- 2021 47. Causal Data Science Meeting (CDSM 2021), Online
- 2021 46. London School of Economics, Department of Methodology Seminar, Online
- 2021 45. University of Washington, CSSS Seminar, Seattle, Washington
- 2021 44. Online Causal Inference Seminar (OCIS), Online
- 2021 43. Pacific Causal Inference Conference 2021, Online
- 2021 42. International Conference on Knowledge Discovery & Data Mining (KDD 2021), Online
- 2021 41. Joint Statistical Meetings (JSM 2021), Online
- 2021 40. European Causal Inference Meeting (EuroCIM 2021), Online
- 2021 39. Federal University of Pelotas (UFPel), Economics Seminar, Online
- 2021 38. Annual Meeting of the Society for Epidemiologic Research (SER 2021), Online
- 2020 37. Ecole Polytechnique, France, Online
- 2020 36. Healthdata Bootcamp, Online
- 2020 35. Causal Data Science Meeting (CDSM 2020), Online
- 2020 34. Annual Meeting of the American Society of Human Genetics (ASHG 2020), Online
- 2020 33. Joint Statistical Meetings (JSM 2020), Online
- 2020 32. Annual Meeting of the Society for Political Methodology (PolMeth 2020), Online
- 2020 31. International Conference on Machine Learning (ICML 2020), Online
- 2020 30. useR! 2020, Online
- 2020 29. American Causal Inference Conference (ACIC 2020), Austin, Texas [Postponed due to COVID-19]
- 28. Innovative Methods with Big Data and Artificial Intelligence (IM DATA 2019), Pasadena, California
- 2019 27. Southern California Methods Conference (SoCal 2019), Riverside, California
- 2019 26. University of Southern California, Los Angeles, California
- 2019 25. Joint Statistical Meetings (JSM 2019), Denver, Colorado
- 2019 24. International Conference of Machine Learning (ICML 2019), Long Beach, California
- 2019 23. RAND Corporation, Center for Causal Inference Seminar, Santa Monica, California
- 2019 22. University of São Paulo (USP), Statistics Seminar, São Paulo, Brazil

- 2019 21. Insper, Data Science Seminar, São Paulo, Brazil
- 2018 20. Joint Statistical Meetings (JSM 2018), Vancouver, British Columbia, Canada
- 2018 19. Annual Meeting of the Society for Political Methodology (PolMeth XXXV), BYU, Provo, Utah
- 2017 18. BITSS Annual Meeting, Berkeley, California
- 2017 17. Causal Inference from Neuroscience to Computer Science, UCLA, Los Angeles, California
- 2017 16. Joint Statistical Meetings (JSM 2017), Baltimore, Maryland
- 2016 15. useR! 2016, Stanford, California
- 2016 14. University of Brasilia (UnB), Statistics Seminar, Brasília, Brazil
- 2015 13. Model Development, Validation and Model Risk Management, Santiago, Chile
- 2015 12. useR! 2015, Aalborg, Denmark
- 2015 11. Workshop of Systemic Risk and Financial Networks, IPAM/UCLA, Los Angeles, California
- 2014 10. Catholic University of Brasilia (UCB), Economics Seminar, Brasília, Brazil
- 2014 9. useR! 2014, Los Angeles, California
- 2013 8. 26th Annual Conference of the History of Economic Thought Society, Perth, Australia
- 2012 7. XL National Meeting of Economics, Porto de Galinhas, Brazil
- 2012 6. IV International Conference of Economic History, São Paulo, Brazil
- 2012 5. XVII National Meeting of Political Economy, Rio de Janeiro, Brazil
- 2011 4. XVII Brazilian Symposium on Water Resources, Maceió, Brazil
- 2011 3. II Meeting of Economics of Espírito Santo, Vitória, Brazil
- 2010 2. XVII National Meeting of Political Economy, São Luís, Brazil
- 2009 1. XXXVII National Meeting of Economics, Foz do Iguaçu, Brazil

Organized Conferences, Seminars & Other Activities

- 7. Program Committee, Annual Meeting of the Society for Political Methodology (PolMeth 2025), Emory University, Atlanta, Georgia
- 6. Conference Co-Chair, American Causal Inference Conference (ACIC 2024), Seattle, Washington
- 5. Conference Co-Chair, Interactive Causal Learning Conference (ICLC 2023), Boca Raton, Florida
- 2023 4. Co-Organizer, Causal Inference Reading Group, University of Washington

- 2022 3. Conference Co-Chair, Interactive Causal Learning Conference (ICLC 2023), Washington D.C.
- 2022 2. Co-Organizer, Causal Inference Reading Group, University of Washington
- 2022 1. Session Chair, Joint Statistical Meetings (JSM 2022), Washington D.C.

EDITORIAL AND REFEREE SERVICE

EDITORIAL BOARD

2021- Associate Editor, Journal of Causal Inference

Manuscript Referee

JRSS-B, JASA, Biometrika, Statistical Science, International Journal of Biostatistics, Journal of Applied Econometrics, Econometrica, Econometric Reviews, Journal of Political Economy, Journal of Causal Inference, ICML, Neurips, AAAI, AISTATS, CLeaR, Nature Climate Change, Science Advances, Political Analysis, Collabra: Psychology, Epidemiology, European Journal of Epidemiology, International Journal of Epidemiology, American Journal of Epidemiology, PCORI, Annals of Operations Research, Nova Economia, Cambridge University Press.

TEACHING EXPERIENCE

University of Washington, Seattle

- 2024 12. STAT 590: Statistics Seminar.
 - Graduate seminar with 40 students.
- 2024 11. STAT/CS&SS 564: Bayesian Statistics for the Social Sciences, Spring.
 - Graduate course with 15 students.
 - Median course evaluation: 4.9 out of 5.
- 2024 10. STATS 396: Finite Markov Chains and Monte-Carlo Methods, Spring.
 - Undergraduate course with 50 students.
 - Median course evaluation: 4.3 out of 5.
- 9. STAT/CS&SS 504: Applied Regression, Winter.
 - Graduate course with 50 students.
 - Median course evaluation: 4.8 out of 5.
- 2023 8. STAT/CS&SS 564: Bayesian Statistics for the Social Sciences, Spring.
 - Graduate course with 25 students.
 - Median course evaluation: 4.7 out of 5.
- 2023 7. STAT 591: The Structural and Counterfactual Theory of Causation, Winter.
 - Graduate course with 18 students.
 - Median course evaluation: 5 out of 5.

- 2023 6. CS&SS 590: Center for Statistics and the Social Sciences Seminar, Winter.
 - Graduate seminar with 30 students.
- 2023 5. STAT/CS&SS 504: Applied Regression, Winter.
 - Graduate course with 55 Students.
 - Median course evaluation: 4.9 out of 5.
- 2022 4. STAT/MATH 396: Finite Markov Chains and Monte-Carlo Methods, Spring.
 - Undergraduate course with 53 students.
 - Median course evaluation: 4.1 out of 5.
- 3. STAT/CS&SS 564: Bayesian Statistics for the Social Sciences, Spring.
 - Graduate course with 25 students.
 - Median course evaluation: 4.9 out of 5.
- 2022 2. CS&SS 590: Center for Statistics and the Social Sciences Seminar, Winter.
 - Graduate seminar with 30 students.
- 2022 1. STAT/CS&SS 504: Applied Regression, Winter.
 - Graduate course with 50 students.
 - Median course evaluation: 4.7 out of 5.

Independent Studies

- 2024 10. Danielle Tsao, Dept. of Statistics, University of Washington.
- 2024 9. Juejue Wang, Dept. of Statistics, University of Washington.
- 2023 8. Saksham Jain, Dept. of Statistics, University of Washington.
- 2023 7. Shreya Prakash, Dept. of Statistics, University of Washington.
- 2023 6. Chang Liu, Dept. of Statistics, University of Washington.
- 5. Kenny Zhang, Dept. of Statistics, University of Washington
- 2022 4. Shreya Prakash, Dept. of Statistics, University of Washington.
- 2022 3. Chang Liu, Dept. of Statistics, University of Washington.
- 2022 2. Medha Agarwal, Dept. of Statistics, University of Washington.
- 2022 1. Kenny Zhang, Dept. of Statistics, University of Washington

University of California, Los Angeles

- 2018 3. STATS 256: Causality (Graduate) / Special Reader
- 2017 2. STATS 100A: Introduction to Probability Theory (Undergraduate Upper Division) / TA
- 2016 1. STATS 10: Introduction to Statistical Reasoning (Undergraduate Lower Division) / Reader

University of the Central Bank of Brazil

2012-2016 Statistics and R programming / Full Course Development and Professor

BRAZILIAN INSTITUTE OF RESEARCH AND DATA ANALYSIS

2015-2016 Introduction to programming with R / Full Course Development and Professor

Tutorials, Workshops & Short Courses

- Sensitivity Analysis for Causal Inference, CS&SS 25th Anniversary, Seattle, Washington.
- 2023 Introduction to Causal Graphs, APSA 2023, Los Angeles, California.
- Generalizability in Causal Inference, Southern Calif. Methods Conference, Riverside, California.

Research Advising & Mentoring

PhD Committee Chair

- 1. Nicholas Irons, Dept. of Statistics, University of Washington, co-Chair with Adrian Raftery.
 - Chairs: Carlos Cinelli & Adrian Raftery
 - Candidacy: Fall 2022.
 - Final Defense: Fall 2024.

PhD Committee Member

- 5. Jessica Kunke, Dept. of Statistics, University of Washington.
 - Chair: Tyler McCormick
 - Candidacy: Fall 2023.
- 4. Shreya Prakash, Dept. of Statistics, University of Washington.
 - Chair: Elena Erosheva
 - Candidacy: Fall 2024.
- 3. Kenny Zhang, Dept. of Statistics, University of Washington.
 - Chair: Thomas Richardson
 - Candidacy: Summer 2024.
- 2. Steven Wilkins-Reeves, Dept. of Statistics, University of Washington.
 - Chair: Tyler McCormick
 - Candidacy: Fall 2022.
 - Final Defense: Summer 2024.
- 1. Daniel Kumor, Dept. of Computer Science, Purdue University.
 - Chair: Elias Bareinboim
 - Final Defense: Spring 2022.

Masters Students

- 2. Fanyu Cui, Dept. of Statistics, University of Washington.
 - Placement: PhD Student in Biostatistics, Columbia University, 2023.
- 1. Chang Liu, Dept. of Statistics, University of Washington
 - Placement: PhD Student in Statistics, Boston University, 2023.

OTHER UNIVERSITY AND DEPARTMENTAL SERVICE

University of Washington

COMMITTEES

- 2024 15. Member, PhD Admissions Committee, Department of Statistics
- 2024 14. Member, MS Admissions Committee, Department of Statistics
- 2024 13. Member, PhD Preliminary Exam Committee, Department of Statistics
- 2023 12. Member, Faculty Search Committee, Tenure Track, Department of Statistics
- 2023 11. Member, Faculty Search Committee, Teaching Track, Department of Statistics
- 2023 10. Member, Faculty Search Committee, Acting Track, Department of Statistics
- 2023 9. Member, PhD Admissions Committee, Department of Statistics
- 2023 8. Member, MS Admissions Committee, Department of Statistics
- 2023 7. Member, *PhD Preliminary Exam Committee*, Department of Statistics
- 2022 6. Member, Faculty Search Committee, Tenure Track, Department of Statistics
- 2022 5. Member, *PhD Admissions Committee*, Department of Statistics
- 2022 4. Member, *PhD Preliminary Exam Committee*, Department of Statistics
- 3. Member, Seminar Committee, Center for Statistics and the Social Sciences
- 2021 2. Member, PhD Admissions Committee, Department of Statistics
- 1. Member, *Seminar Committee*, Center for Statistics and the Social Sciences

 ACADEMIC ADVISING (DEPARTMENT-ASSIGNED)
- 2024 13. Jillian Fisher, Department of Statistics
- 2024 12. Ethan Ancell, Department of Statistics
- 2024 11. Alex Bank, Department of Statistics
- 2023 10. Jillian Fisher, Department of Statistics
- 2023 9. Ethan Ancell, Department of Statistics

- 2023 8. Alex Bank, Department of Statistics
- 2023 7. Zhaoqi Li, Department of Statistics
- 2022 6. Jillian Fisher, Department of Statistics
- 2022 5. Ethan Ancell, Department of Statistics
- 2022 4. Alex Bank, Department of Statistics
- 2022 3. Zhaoqi Li, Department of Statistics
- 2021 2. James Buenfil, Department of Statistics
- 2021 1. Max Schneider, Department of Statistics