Timothy B. Armstrong

Vita Date: August 2024

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Los Angeles, CA 90089

Citizenship: United States

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Employment:
Professor, University of Southern California

Previous Positions:
Associate Professor (with tenure), University of Southern California, Fall 2021-Fall 2023
Associate Professor, Yale University, Fall 2018-Spring 2021
Saieh Family Fellow, Becker Friedman Institute, Winter-Spring, 2019
Visiting Scholar, University College London, Fall 2018
Assistant Professor, Yale University, Fall 2012-Spring 2018
Visiting Scholar, University of Pennsylvania, Spring 2015
Visiting Scholar, Harvard University, Fall 2014

Fields:
Econometric Theory, Applied Econometrics

Education:
Ph.D. Economics, Stanford University, 2007-2012
B.A. Economics-Mathematics, Reed College, 2003-2007

Fellowships, Honors, and Awards:
National Science Foundation Research Grant "Honest and Robust Inference with High Dimensional Data" (co-PI Michal Kolesár), 2021-2024
National Science Foundation Research Grant "Honest Inference and Efficiency Bounds for Nonparametric Regression and Approximate Moment Condition Models" (co-PI Michal Kolesár), 2016-2019
Yale University Junior Faculty Fellowship, 2014-2015
B.F. Haley and E.S. Shaw Fellowship, Stanford University, 2011-2012
Second Year Paper Prize, Dept. of Economics, Stanford University, 2010
Economics Department Fellowship, Stanford University, 2007-2008

Phi Beta Kappa, 2007

Gerald M. Meier Award for Distinction in Economics, Reed College, 2007

Presentations:

2024: AEA Winter Meetings, UCL, CeMMAP-Turing Workshop, Oxford Panel Data Workshop, IAAE Conference Thessaloniki, Econometrics in Rio Conference

2023: Michigan State, U Chicago, Emory QTM, U Toronto, HKUST, Caltech

2022: Princeton, UCLA, UC Davis (online), CIREQ Econometrics Conference, UCL, LSE, Oxford, Stanford

2021: Rutgers (online), UC Berkeley, UC Irvine (online), SEA Annual Meeting

2020: USC, Chamberlain Online Seminar, Econometric Society World Congress (online), Johns Hopkins U (online), U Texas-Austin (online)

2019: U North Carolina, Indiana U, Queen's U, U Chicago, U Maryland, U British Columbia, Stanford, UC Berkeley, UC San Diego, BFI Fellows Seminar, New York Area Econometrics Conference

2018: Penn State, U Iowa Econometrics Mini-Conference, CIREQ Econometrics Conference, Seoul National University, U Conn New Frontiers in Econometrics Conference, North American Meetings of the Econometric Society, IAAE Conference, EEA-ESEM Meetings, CREST, Cambridge, University College London, U Surrey, Tilburg U, U Amsterdam, U Mannheim, CEMFI, U Carlos III

2017: AEA Winter Meetings, Stanford, U Chicago, CEME "Inference in Non-Standard Problems" conference, U Illinois Urbana-Champaign, NYU, Yale MacMillan-CSAP, New York Area Econometrics Conference

2016: New York Area Econometrics Conference, U Wisconsin-Madison, North American Meetings of the Econometric Society

2015: U Penn, Michigan State, Stanford, Humboldt U Berlin, Econometric Society World Congress, CEME "Inference in Non-Standard Problems" conference, U Virginia

2014: AEA Winter Meetings, Vanderbilt, University College London, London School of Economics, Toulouse School of Economics, U Montreal, U Toronto, Harvard/MIT, Boston University, CEME "Interactions" conference, New York Area Econometrics Conference

2013: AEA Winter Meetings, Cornell, Brown, Columbia, Duke, North American Meetings of the Econometric Society, Asian Meetings of the Econometric Society, Penn State, NYU, Boston College, Ohio State, New York Area Econometrics Conference

2012: U Chicago, Yale, Harvard, Chicago Booth, UCLA, U Michigan, Princeton, UC Berke-

ley, UC San Diego, UC Davis, U Penn, U Wisconsin-Madison, U Texas-Austin, Northwestern, New York Area Econometrics Conference
2011: MIT, California Econometrics Conference
2010: Econometric Society World Congress, California Econometrics Conference

Professional Activity:

Associate Editor, *Econometrica*
Associate Editor, *Journal of Political Economy: Microeconomics*
Associate Editor, *Journal of Econometrics*
Associate Editor, *Econometric Theory*

Refereeing: *American Economic Journal: Microeconomics*, *American Economic Review*, *American Economic Review: Insights*, *Annals of Statistics*, *Econometric Theory*, *Econometrica*, *Econometrics*, *Electronic Journal of Statistics*, *Journal of Applied Econometrics*, *Journal of Business and Economic Statistics*, *Journal of Econometrics*, *Journal of Economic Theory*, *Journal of Nonparametric Statistics*, *Journal of Political Economy*, *Journal of the American Statistical Association*, *Journal of the Royal Statistical Society Series B*, *Review of Economic Studies*, *Quantitative Economics*

Organizer, Cowles Foundation Econometrics Conference, Summer 2014

Publications:

Armstrong, T. B., Kolesár, M., & Plagborg-Møller, M. (2022). Robust Empirical Bayes Confidence Intervals. *Econometrica*, 90(6), 2567–2602

Armstrong, T. B. & Kolesár, M. (2021). Finite-Sample Optimal Estimation and Inference on Average Treatment Effects Under Unconfoundedness. *Econometrica*, 89(3), 1141–1177

Armstrong, T. B. (2021). Adaptation bounds for confidence bands under self-similarity. *Bernoulli*, 27(2), 1348–1370

Armstrong, T. B. & Kolesár, M. (2021). Sensitivity analysis using approximate moment

condition models. *Quantitative Economics*, 12(1), 77–108–108

Armstrong, T. B. & Kolesár, M. (2020). Simple and honest confidence intervals in nonparametric regression. *Quantitative Economics*, 11(1), 1–39

Armstrong, T. B. & Kolesár, M. (2018). Optimal Inference in a Class of Regression Models. *Econometrica*, 86(2), 655–683

Armstrong, T. B. (2018). On the choice of test statistic for conditional moment inequalities. *Journal of Econometrics*, 203(2), 241–255

Armstrong, T. B. & Kolesár, M. (2018). A Simple Adjustment for Bandwidth Snooping. *The Review of Economic Studies*, 85(2), 732–765

Andrews, I. & Armstrong, T. B. (2017). Unbiased instrumental variables estimation under known first-stage sign. *Quantitative Economics*, 8(2), 479–503

Armstrong, T. B. (2016). Large Market Asymptotics for Differentiated Product Demand Estimators With Economic Models of Supply. *Econometrica*, 84(5), 1961–1980

Armstrong, T. B. & Chan, H. P. (2016). Multiscale adaptive inference on conditional moment inequalities. *Journal of Econometrics*, 194(1), 24–43

Armstrong, T. (2015). Adaptive testing on a regression function at a point. *The Annals of Statistics*, 43(5), 2086–2101

Armstrong, T. B. (2015). Asymptotically exact inference in conditional moment inequality models. *Journal of Econometrics*, 186(1), 51–65

Armstrong, T. B. (2014). Weighted KS statistics for inference on conditional moment inequalities. *Journal of Econometrics*, 181(2), 92–116

Armstrong, T. B., Bertanha, M., & Hong, H. (2014). A fast resample method for parametric and semiparametric models. *Journal of Econometrics*, 179(2), 128–133

Armstrong, T. B. (2013). Bounds in auctions with unobserved heterogeneity. *Quantitative Economics*, 4(3), 377–415

Invited Articles:

Armstrong, T. B. & Shen, S. (2023). Inference on optimal treatment assignments. *The Japanese Economic Review*, 74(4), 471–500

Working Papers:

"Adapting to Misspecification" (Aug 2024), with Patrick Kline and Liyang Sun

"Robust Estimation and Inference in Panels with Interactive Fixed Effects" (July 2023), with Martin Weidner and Andrei Zeleneev

"False Discovery Rate Adjustments for Average Significance Level Controlling Tests" (Sep 2022)

"Asymptotic Efficiency Bounds for a Class of Experimental Designs" (May 2022)

"Bias-Aware Inference in Regularized Regression Models" (Aug 2023), with Michal Kolesár and Soonwoo Kwon

"The Asymptotic Distribution of Simulation Estimators with Overlapping Estimation Draws" (Dec 2017), with Ron Gallant, Han Hong and Huiyu Li

"A Note on Minimax Testing and Confidence Intervals in Moment Inequality Models" (Dec 2014)

Courses Taught:

USC ECON 686a: Empirical Methods in Economics (Fall 2023). Course for second year Ph.D. students co-taught with faculty in applied fields.

USC ECON 570: Big Data Econometrics (Fall 2022, Spring 2024). Master's course covering methods for high-dimensional data.

USC ECON 460: Economic Applications of Machine Learning (Fall 2021, Fall 2022). Advanced undergraduate course covering methods for high-dimensional data.

Yale ECON 135: Introduction to Probability and Statistics (Fall 2012, Fall 2013, Fall 2015, Fall 2016, Fall 2019). First semester of year-long undergraduate sequence covering probability, statistics and econometrics.

Yale ECON 420: Applied Econometrics (Fall 2016, Fall 2017, Fall 2019, Fall 2020). Advanced topics course in econometrics for undergraduates; online for Fall 2020.

Yale ECON 554: Econometrics V (Spring 2014, Spring 2016). Advanced topics course in econometrics for Ph.D. students.

Yale ECON 551: Econometrics II (Spring 2016, Spring 2017, Spring 2018, Spring 2020, Spring 2021). Second semester of year-long econometrics sequence for first year Ph.D. students.

Yale ECON 556: Topics in Empirical Economics and Public Policy (Fall 2017). Second year course in applied econometrics for Ph.D. students.