

Timothy B. Armstrong

Vita Date: March 2023

3620 South Vermont Ave. Kaprielian (KAP) Hall

Los Angeles, CA 90089

Citizenship: United States

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Employment:

Associate Professor (with tenure), University of Southern California

Previous Positions:

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:

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 Berkeley, 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, *Journal of Political Economy: Microeconomics*

Associate Editor, *Econometric Reviews*

Refereeing: *American Economic Journal: Microeconomics*, *American Economic Review*, *American Economic Review: Insights*, *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 Non-parametric Statistics*, *Journal of Political Economy*, *Journal of the American Statistical Association*, *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

Working Papers:

“Robust Estimation and Inference in Panels with Interactive Fixed Effects” (Oct 2022), with

Martin Weidner and Andrei Zeleneev

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

“Bias-Aware Inference in Regularized Regression Models” (Dec 2020), 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

“Inference on Optimal Treatment Assignments” (Apr 2015), with Shu Shen, revise and re-submit at *Journal of Applied Econometrics*

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

Courses Taught:

USC ECON 570: Big Data Econometrics (Fall 2022). 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.