Emory University, Rich Memorial Building
1602 Fishburne Drive, Room 306G
Atlanta, Georgia 30322
(404)-727-6364
alexis.akira.toda(at)emory.edu
alexisakira.github.io
toda_a_1
alexisakira
29tiOI0AAAAJ
0000-0001-5965-7806
Alexis-Toda
Last updated: January 24, 2026

Alexis Akira Toda

Curriculum Vitae

Personal Information

Place of Birth	November 1, 1979, Montréal, Québec, Canada
Citizenship	Canada, Japan, United States
Language	English (fluent), French (rusty), Japanese (native)
Number of papers	54 published/accepted; 33.3 if inversely weighted by number of coauthors
Erdős Number	3

Research Interests

- Macro-finance
- Asset price bubbles
- Power law
- Mathematical economics
- Computational economics

Appointments and Affiliations

Academic positions

- 2024- **Professor**, *Department of Economics, Emory University*
- 2019-2024 **Associate Professor**, *Department of Economics, University of California San Diego*
- 2013-2019 **Assistant Professor**, *Department of Economics, University of California San Diego*

Short-term visits

- Jun-Jul 2018 **Visiting Assistant Professor**, *Research School of Economics, Australian National University*
- Jun-Aug 2014 **Visiting Assistant Professor**, *Graduate School of Economics, University of Tokyo*

Non-academic positions

- 2007-2010 **Anesthesiologist**, *Toranomon Hospital*, Tokyo, Japan
- 2006-2007 **Anesthesiologist**, *NTT East Kanto Medical Center*, Tokyo, Japan
- 2004-2006 **Resident**, *Kitami Red Cross Hospital*, Hokkaido, Japan

Education

- 2013 **Ph.D.**, *Department of Economics, Yale University*, Advisors: John Geanakoplos (Chair), Truman Bewley, Tony Smith
- 2011 **M.Phil.**, *Department of Economics, Yale University*
- 2009 **M.A.**, *Department of Economics, Yale University*
- 2008 **M.A.**, *Graduate School of Economics, University of Tokyo*, Japan, Advisors: Hiroshi Yoshikawa, Kazuya Kamiya
- 2004 **M.D.**, *Faculty of Medicine, University of Tokyo*, Japan
- 2004 **B.A.**, *Faculty of Medicine, University of Tokyo*, Japan

Qualifications

- 2021 **Rover Umpire**, United States Tennis Association
- 2008 **Board-certified Anesthesiologist**, Japan
- 2004 **Medical Doctor**, Japan

Achievements

Honors and Awards

- 2021 **Faculty Teaching Award**, Department of Economics, UCSD, graduate core
- 2021 **Junko Maru Prize**, *JPY200,000*, Nippon Finance Association, for "The Equity Premium and the One Percent"
- 2021 **Government Pension Investment Fund (GPIF) Finance Award**, Ministry of Health, Labor and Welfare; Ministry of Education, Culture, Sports, Science and Technology, Japan
- 2017 **Wells Fargo Award for Excellence in Research**, *$2,398*, for "The Double Power Law in Consumption and Implications for Testing Euler Equations", joint with Kieran Walsh
- 2016 **Faculty Teaching Award**, Department of Economics, UCSD, graduate advanced elective
- 2007 **CEMANO-COE Distinguished TA Award**, Graduate School of Economics, University of Tokyo, econometrics

Fellowships and Grants

- 2026 **Research Grant**, *JPY640,000*, Japan Center for Economic Research, joint with Keiichi Kishi and Tomohiro Hirano
- **Research Grant**, *JPY900,000*, Zengin Foundation, joint with Keiichi Kishi and Tomohiro Hirano
- 2025 **Research Grant**, *JPY1,400,000*, Murata Science and Education Foundation, joint with Keiichi Kishi and Tomohiro Hirano
- **Project Research Program**, *JPY600,000*, Hitotsubashi University, joint with Keiichi Kishi, Tomohiro Hirano, and Masaru Inaba
- **Research Grant**, *JPY1,000,000*, Japan Center for Economic Research, joint with Keiichi Kishi and Tomohiro Hirano
- 2024 **Research Grant**, *JPY850,000*, Japan Securities Scholarship Foundation, joint with Keiichi Kishi and Tomohiro Hirano
- **Project Research Program**, *JPY600,000*, Hitotsubashi University, joint with Keiichi Kishi and Tomohiro Hirano
- 2023 **Project Research Program**, *JPY480,000*, Hitotsubashi University
- **Conference Travel Fund**, *$703.86*, UCSD
- 2019 **Conference Travel Fund**, *$1,200*, UCSD
- 2018 **General Campus Research Grant**, *$5,857.41*, UCSD
- **Conference Travel Fund**, *$911.46*, UCSD
- **Research Grant**, *JPY900,000*, Zengin Foundation
- 2017 **Conference Travel Fund**, *$694.34*, UCSD
- 2016 **Faculty Career Development Program**, *$8,000*, UCSD, one course teaching relief
- **General Campus Research Grant**, *$14,173.27*, UCSD
- **Conference Travel Fund**, *$1,115*, UCSD
- 2015 **Conference Travel Fund**, *$543.12*, UCSD
- 2014 **Conference Travel Fund**, *$1,631.35*, UCSD
- 2012-2013 **Dissertation Fellowship**, Yale University
- 2011 **Complex Systems Summer School Fellowship**, Santa Fe Institute
- 2009-2012 **Richard J. Bernhard Fellowship**, Yale University
- 2008-2012 **Graduate Fellowship**, Yale University
- 2008-2013 **Graduate Fellowship**, Nakajima Foundation

Research

Refereed research articles

[1] N.-S. Pham and A. A. Toda. "Comment on 'Asset Bubbles and Overlapping Generations'". *Econometrica* (2026). Forthcoming. arXiv: 2507.12477 [econ.TH].

[2] B. K. Beare and A. A. Toda. "Optimal Taxation and the Domar-Musgrave Effect". *Economic Inquiry* 63.4 (2025), 1170–1200. DOI: 10.1111/ecin.70007.

[3] V. Geloso and A. A. Toda. "Pareto's Limits: Improving Inequality Estimates in America, 1917 to 1965". *Cliometrica* (2025). DOI: 10.1007/s11698-025-00316-8.

[4] T. Hirano and A. A. Toda. "Bubble Necessity Theorem". *Journal of Political Economy* 133.1 (2025), 111–145. DOI: 10.1086/732528.

[5] T. Hirano and A. A. Toda. "Toward Bubble Clarity". *Econ Journal Watch* 22.1 (2025), 1–17. URL: https://econjwatch.org/1384.

[6] T. Hirano and A. A. Toda. "Unbalanced Growth and Land Overvaluation". *Proceedings of the National Academy of Sciences* 122.14 (2025), e2423295122. DOI: 10.1073/pnas.2423295122.

[7] L. Li and A. A. Toda. "Incentivizing Hidden Types in Secretary Problem". *International Journal of Game Theory* 54.2 (2025). DOI: 10.1007/s00182-025-00922-w.

[8] A. A. Toda. "Land Bubbles Despite Non-Vanishing Rents". *Economics Letters* 257 (2025), 112708. DOI: 10.1016/j.econlet.2025.112708.

[9] T. Hirano and A. A. Toda. "Bubble Economics". *Journal of Mathematical Economics* 111 (2024), 102944. DOI: 10.1016/j.jmateco.2024.102944.

[10] T. Hirano and A. A. Toda. "On Equilibrium Determinacy in Overlapping Generations Models with Money". *Economics Letters* 239 (2024), 111758. DOI: 10.1016/j.econlet.2024.111758.

[11] J. H. Lee, Y. Sasaki, A. A. Toda, and Y. Wang. "Tuning Parameter-Free Nonparametric Density Estimation from Tabulated Summary Data". *Journal of Econometrics* 238.1 (2024), 105568. DOI: 10.1016/j.jeconom.2023.105568.

[12] A. A. Toda. "Unbounded Markov Dynamic Programming with Weighted Supremum Norm Perov Contractions". *Economic Theory Bulletin* 12 (2024), 141–156. DOI: 10.1007/s40505-024-00267-9.

[13] A. A. Toda and K. J. Walsh. "Recent Advances on Uniqueness of Competitive Equilibrium". *Journal of Mathematical Economics* 113 (2024), 103008. DOI: 10.1016/j.jmateco.2024.103008.

[14] J. P. Flynn, L. D. W. Schmidt, and A. A. Toda. "Robust Comparative Statics for the Elasticity of Intertemporal Substitution". *Theoretical Economics* 18.1 (2023), 231–265. DOI: 10.3982/TE4117.

[15] É. Gouin-Bonenfant and A. A. Toda. "Pareto Extrapolation: An Analytical Framework for Studying Tail Inequality". *Quantitative Economics* 14.1 (2023), 201–233. DOI: 10.3982/QE1817.

[16] B. K. Beare, W.-K. Seo, and A. A. Toda. "Tail Behavior of Stopped Lévy Processes with Markov Modulation". *Econometric Theory* 38.5 (2022), 986–1013. DOI: 10.1017/S0266466621000268.

[17] B. K. Beare and A. A. Toda. "Determination of Pareto Exponents in Economic Models Driven by Markov Multiplicative Processes". *Econometrica* 90.4 (2022), 1811–1833. DOI: 10.3982/ECTA17984.

[18] T. de Vries and A. A. Toda. "Capital and Labor Income Pareto Exponents across Time and Space". *Review of Income and Wealth* 68.4 (2022), 1058–1078. DOI: 10.1111/roiw.12556.

[19] Q. Ma, J. Stachurski, and A. A. Toda. "Unbounded Dynamic Programming via the Q-Transform". *Journal of Mathematical Economics* 100 (2022), 102652. DOI: 10.1016/j.jmateco.2022.102652.

[20] Q. Ma and A. A. Toda. "Asymptotic Linearity of Consumption Functions and Computational Efficiency". *Journal of Mathematical Economics* 98 (2022), 102562. DOI: 10.1016/j.jmateco.2021.102562.

[21] T. Phelan and A. A. Toda. "Optimal Epidemic Control in Equilibrium with Imperfect Testing and Enforcement". *Journal of Economic Theory* 206 (2022), 105570. DOI: 10.1016/j.jet.2022.105570.

[22] G. Gutin, T. Hirano, S.-H. Hwang, P. R. Neary, and A. A. Toda. "The Effect of Social Distancing on the Reach of an Epidemic in Social Networks". *Journal of Economic Interaction and Coordination* 16 (2021), 629–647. DOI: 10.1007/s11403-021-00322-9.

[23] Q. Ma and A. A. Toda. "A Theory of the Saving Rate of the Rich". *Journal of Economic Theory* 192 (2021), 105193. DOI: 10.1016/j.jet.2021.105193.

[24] A. A. Toda. "Data-based Automatic Discretization of Nonparametric Distributions". *Computational Economics* 57 (2021), 1217–1235. DOI: 10.1007/s10614-020-10012-6.

[25] A. A. Toda. "Necessity of Hyperbolic Absolute Risk Aversion for the Concavity of Consumption Functions". *Journal of Mathematical Economics* 94 (2021), 102460. DOI: 10.1016/j.jmateco.2020.102460.

[26] A. A. Toda. "Perov's Contraction Principle and Dynamic Programming with Stochastic Discounting". *Operations Research Letters* 49.5 (2021), 815–819. DOI: 10.1016/j.orl.2021.09.001.

[27] A. A. Toda and Y. Wang. "Efficient Minimum Distance Estimation of Pareto Exponent from Top Income Shares". *Journal of Applied Econometrics* 36.2 (2021), 228–243. DOI: 10.1002/jae.2788.

[28] S. B. Akhundjanov and A. A. Toda. "Is Gibrat's "Economic Inequality" Lognormal?" *Empirical Economics* 59.5 (2020), 2071–2091. DOI: 10.1007/s00181-019-01719-z.

[29] B. K. Beare and A. A. Toda. "On the Emergence of a Power Law in the Distribution of COVID-19 Cases". *Physica D* 412 (2020), 132649. DOI: 10.1016/j.physd.2020.132649.

[30] Q. Ma, J. Stachurski, and A. A. Toda. "The Income Fluctuation Problem and the Evolution of Wealth". *Journal of Economic Theory* 187 (2020), 105003. DOI: 10.1016/j.jet.2020.105003.

[31] A. A. Toda and K. J. Walsh. "The Equity Premium and the One Percent". *Review of Financial Studies* 33.8 (2020), 3583–3623. DOI: 10.1093/rfs/hhz121.

[32] Y. Lyu and A. A. Toda. "Publications, Citations, Position, and Compensation of Economics Professors". *Econ Journal Watch* 16.2 (2019), 239–257. URL: https://econjwatch.org/1171.

[33] G. Phelan and A. A. Toda. "Securitized Markets, International Capital Flows, and Global Welfare". *Journal of Financial Economics* 131.3 (2019), 571–592. DOI: 10.1016/j.jfineco.2018.08.011.

[34] J. Stachurski and A. A. Toda. "An Impossibility Theorem for Wealth in Heterogeneous-agent Models with Limited Heterogeneity". *Journal of Economic Theory* 182 (2019), 1–24. DOI: 10.1016/j.jet.2019.04.001.

[35] A. A. Toda. "Wealth Distribution with Random Discount Factors". *Journal of Monetary Economics* 104 (2019), 101–113. DOI: 10.1016/j.jmoneco.2018.09.006.

[36] L. E. Farmer and A. A. Toda. "Discretizing Nonlinear, Non-Gaussian Markov Processes with Exact Conditional Moments". *Quantitative Economics* 8.2 (2017), 651–683. DOI: 10.3982/QE737.

[37] Y. Miyoshi and A. A. Toda. "Growth Effects of Annuities and Government Transfers in Perpetual Youth Models". *Journal of Mathematical Economics* 72 (2017), 1–6. DOI: 10.1016/j.jmateco.2017.06.002.

[38] A. A. Toda. "A Note on the Size Distribution of Consumption: More Double Pareto than Lognormal". *Macroeconomic Dynamics* 21.6 (2017), 1508–1518. DOI: 10.1017/S1365100515000942.

[39] A. A. Toda. "Huggett Economies with Multiple Stationary Equilibria". *Journal of Economic Dynamics and Control* 84 (2017), 77–90. DOI: 10.1016/j.jedc.2017.09.002.

[40] A. A. Toda and K. J. Walsh. "Edgeworth Box Economies with Multiple Equilibria". *Economic Theory Bulletin* 5.1 (2017), 65–80. DOI: 10.1007/s40505-016-0102-3.

[41] A. A. Toda and K. J. Walsh. "Fat Tails and Spurious Estimation of Consumption-Based Asset Pricing Models". *Journal of Applied Econometrics* 32.6 (2017), 1156–1177. DOI: 10.1002/jae.2564.

[42] K. Tanaka and A. A. Toda. "Discretizing Distributions with Exact Moments: Error Estimate and Convergence Analysis". *SIAM Journal on Numerical Analysis* 53.5 (2015), 2158–2177. DOI: 10.1137/140971269.

[43] A. A. Toda. "Asset Prices and Efficiency in a Krebs Economy". *Review of Economic Dynamics* 18.4 (2015), 957–978. DOI: 10.1016/j.red.2014.11.003.

[44] A. A. Toda. "Bayesian General Equilibrium". *Economic Theory* 58.2 (2015), 375–411. DOI: 10.1007/s00199-014-0849-4.

[45] A. A. Toda and K. Walsh. "The Double Power Law in Consumption and Implications for Testing Euler Equations". *Journal of Political Economy* 123.5 (2015), 1177–1200. DOI: 10.1086/682729.

[46] A. A. Toda. "Incomplete Market Dynamics and Cross-Sectional Distributions". *Journal of Economic Theory* 154 (2014), 310–348. DOI: 10.1016/j.jet.2014.09.015.

[47] A. A. Toda. "Radii of the Inscribed and Escribed Spheres of a Simplex". *International Journal of Geometry* 3.2 (2014), 5–13. URL: http://ijgeometry.com/wp-content/uploads/2014/10/1.pdf.

[48] K. Tanaka and A. A. Toda. "Discrete Approximations of Continuous Distributions by Maximum Entropy". *Economics Letters* 118.3 (2013), 445–450. DOI: 10.1016/j.econlet.2012.12.020.

[49] J. Toda, A. A. Toda, and J. Arakawa. "Learning Curve for Paramedic Endotracheal Intubation and Complications". *International Journal of Emergency Medicine* 6 (2013), 38. DOI: 10.1186/1865-1380-6-38.

[50] M. Nakamura, H. Yasunaga, A. A. Toda, T. Sugihara, and T. Imamura. "The Impact of Media Reports on the 2008 Outbreak of Hydrogen Sulfide Suicides in Japan". *International Journal of Psychiatry in Medicine* 44.2 (2012), 133–140. DOI: 10.2190/PM.44.2.d.

[51] A. A. Toda. "The Double Power Law in Income Distribution: Explanations and Evidence". *Journal of Economic Behavior and Organization* 84.1 (2012), 364–381. DOI: 10.1016/j.jebo.2012.04.012.

[52] A. A. Toda. "Income Dynamics with a Stationary Double Pareto Distribution". *Physical Review E* 83.4 (2011), 046122. DOI: 10.1103/physreve.83.046122.

[53] A. A. Toda. "Operator Reverse Monotonicity of the Inverse". *American Mathematical Monthly* 118.1 (2011), 82–83. DOI: 10.4169/amer.math.monthly.118.01.082.

[54] A. A. Toda. "Existence of a Statistical Equilibrium for an Economy with Endogenous Offer Sets". *Economic Theory* 45.3 (2010), 379–415. DOI: 10.1007/s00199-009-0493-6.

Working papers

[55] T. Hirano, K. Kishi, and A. A. Toda. "Technological Innovation and Bursting Bubbles" (2025). arXiv: 2501.08215 [econ.TH].

[56] T. Hirano and A. A. Toda. "Land and Infinite Debt Rollover" (2025). arXiv: 2508.16002 [econ.TH].

[57] Q. Ma, X. Song, and A. A. Toda. "A Theory of Saving under Risk Preference Dynamics" (2025). arXiv: 2511.03142 [econ.TH].

[58] Q. Ma and A. A. Toda. "Optimal Savings with Preference for Wealth" (2025). arXiv: 2509.12195 [econ.TH].

[59] N.-S. Pham and A. A. Toda. "Asset Prices with Overlapping Generations and Capital Accumulation: Tirole (1985) Revisited" (2025). arXiv: 2501.16560 [econ.TH].

[60] B. K. Beare and A. A. Toda. "The Effect of Reducible Markov Modulation on Tail Probabilities in Models of Random Growth" (2024). arXiv: 2405.13556 [math.PR].

[61] C. P. Chambers and A. A. Toda. "Linearity of Aggregate Production Functions" (2023). arXiv: 2309.15760 [econ.TH].

[62] T. de Vries and A. A. Toda. "Robust Asset-Liability Management" (2023). arXiv: 2310.00553 [q-fin.RM].

[63] T. Hirano and A. A. Toda. "Equilibrium Selection in Pure Bubble Models by Dividend Injection" (2023). arXiv: 2303.05636 [econ.TH].

[64] T. Hirano and A. A. Toda. "Housing Bubbles with Phase Transitions" (2023). arXiv: 2303.11365 [econ.TH].

[65] T. Hirano, R. Jinnai, and A. A. Toda. "Leverage, Endogenous Unbalanced Growth, and Asset Price Bubbles" (2022). arXiv: 2211.13100 [econ.TH].

[66] J. H. Lee, Y. Sasaki, A. A. Toda, and Y. Wang. "Capital and Labor Income Pareto Exponents in the United States, 1916–2019" (2022). arXiv: 2206.04257 [econ.GN].

[67] J. H. Lee, Y. Sasaki, A. A. Toda, and Y. Wang. "Fixed-k Tail Regression: New Evidence on Tax and Wealth Inequality from Forbes 400" (2021). arXiv: 2105.10007 [econ.GN].

[68] A. A. Toda. "Zipf's Law: A Microfoundation". 2016. URL: http://ssrn.com/abstract=2808237.

[69] A. A. Toda. "Collateralized Loans, Pooling, and Maximum Leverage". Revise and resubmit at *Theoretical Economics*. 2013. URL: http://ssrn.com/abstract=2336582.

Books

[1] A. A. Toda. *Essential Mathematics for Economics*. Boca Raton, FL: CRC Press, 2025. DOI: 10.1201/9781032698953.

Other publications

[1] T. Hirano and A. A. Toda. "Rational Bubbles Attached to Real Assets". In: *Handbook of Economic Bubbles and Manias*. Ed. by M. S. Santos. Forthcoming. Edward Elgar Publishing, 2026. arXiv: 2410.17425 [econ.TH].

[2] B. K. Beare, W.-K. Seo, and A. A. Toda. "Tail Behavior of Stopped Lévy Processes with Markov Modulation—Corrigendum". *Econometric Theory* (2025). DOI: 10.1017/S0266466625000076.

[3] T. Hirano and A. A. Toda. "Cry Wine and Sell Vinegar: Rejoinder to Miao and Wang". *Econ Journal Watch* 22.2 (2025), 211–231. URL: https://econjwatch.org/1400.

[4] J. E. Rauch and A. A. Toda. "Visualizing the Contraction Mapping Theorem". *Qeios* (2024). DOI: 10.32388/JSO1M3.

[5] A. A. Toda. "'Ergodicity Economics' is Pseudoscience". *Qeios* (2024). DOI: 10.32388/ADBSXF.

[6] N. Kocherlakota and A. A. Toda. "Corrigendum to "Bubbles and Constraints on Debt Accumulation" [J. Econ. Theory 57 (1992) 245–256]". *Journal of Economic Theory* 208 (2023), 105608. DOI: 10.1016/j.jet.2023.105608.

[7] J. Stachurski and A. A. Toda. "Corrigendum to "An Impossibility Theorem for Wealth in Heterogeneous-agent Models with Limited Heterogeneity" [Journal of Economic Theory 182 (2019) 1–24]". *Journal of Economic Theory* 188 (2020), 105066. DOI: 10.1016/j.jet.2020.105066.

[8] A. A. Toda. "Susceptible-Infected-Recovered (SIR) Dynamics of COVID-19 and Economic Impact". *Covid Economics, Vetted and Real-Time Papers* 1 (2020), 43–63. URL: https://cepr.org/publications/covid-economics-issue-1.

[9] K. Tanaka and A. A. Toda. "Error Estimate and Convergence Analysis of Moment-Preserving Discrete Approximations of Continuous Distributions". In: *Bayesian Inference and Maximum Entropy Methods in Science and Engineering*. Ed. by R. K. Niven, B. Brewer, D. Paull, K. Shafi, and B. Stokes. Vol. 1636. AIP Conference Proceedings. Melville, NY: American Institute of Physics, 2014, 30–36. DOI: 10.1063/1.4903706.

[10] A. A. Toda. "Axiomatization of Maximum Entropy without the Bayes Rule". In: *Bayesian Inference and Maximum Entropy Methods in Science and Engineering*. Ed. by P. Goyal, A. Giffin, K. H. Knuth, and E. Vrscay. Vol. 1443. AIP Conference Proceedings. Melville, NY: American Institute of Physics, 2012, 7–13. DOI: 10.1063/1.3703614.

Media coverage

[1] Fortune. *The Reopening Dilemma: Saving Lives vs. Saving the Economy is a False Tradeoff, Economists Say.* 2020. URL: https://fortune.com/2020/05/04/reopening-reopen-economy-coronavirus-covid-19-lifting-lockdown-economists.

[2] A. A. Toda. *Early Draconian Social Distancing May Be Suboptimal for Fighting the COVID-19 Epidemic.* VoxEU.org. 2020. URL: https://voxeu.org/article/early-draconian-social-distancing-may-be-suboptimal-fighting-covid-19-epidemic.

Professional Activities

Membership

American Economic Association, American Finance Association, Econometric Society, Macro Finance Society, Society for the Advancement of Economic Theory, Society for Computational Economics, Western Finance Association

Presentations (including scheduled)

2026 Society for Economic Dynamics Conference; Society for the Advancement of Economic Theory Conference

2025 Emory; Federal Reserve Bank of Chicago; Federal Reserve Board of Governors; Institute of Science Tokyo; Johns Hopkins; Keio; McGill; Université Laval; University of Rochester; Foundation for Advancement of Research in Financial Economics Conference

2024 Copenhagen Business School; George Mason; Georgetown; Jönköping; Lund; Norwegian School of Economics; Princeton; UCSD; University of Hamburg; University of Oslo (Economics and Mathematics); University of Tokyo; Waseda; Federal Reserve Board of Governors Summer Workshop on Money, Banking, Payments, and Finance; Greater Fools Bubble Seminar; Workshop on Asset Price Bubbles

2023 Carnegie Mellon; Emory; Federal Reserve Bank of Cleveland; Royal Holloway, University of London; UC Irvine; UCSD (×3); UCSD Rady School of Management; University of Virginia; Cowles Conference on General Equilibrium and its Applications; Econometric Society North American Summer Meeting

2022 Boston; UCSD (×2)

2021 Brown; UC Santa Barbara; University of Tokyo; China International Conference in Macroeconomics

2020 London School of Economics; Royal Holloway, University of London; UCSD (×3); Warwick CRETA Economic Theory Conference

2019 Caltech; City University of New York; Claremont McKenna College; Institute of Social and Economic Research, Osaka; UCLA; UCSD; University of Tokyo; Cowles Conference on General Equilibrium and its Applications; International Conference on Computing in Economics and Finance; Society for Economic Dynamics Conference; Society for the Advancement of Economic Theory Conference; Southwest Economic Theory Conference, Stanford Institute for Theoretical Economics Conference

2018 Australian National University (×2); Syracuse; University of Hong Kong; University of New South Wales (×2); University of Queensland; University of Rochester; University of Technology Sydney; Econometric Society Australasian Meeting; Summer Workshop on Monetary and Financial Economics; Society for the Advancement of Economic Theory Conference

2017 Chinese University of Hong Kong; City University of Hong Kong; Keio; Stern School of Business, New York University; UCSD; Washington University in St. Louis; American Finance Association Meeting; ASSA Chinese Economic Association in North America Meeting; Cowles Conference on General Equilibrium and its Applications; Econometric Society North American Summer Meeting; International Moscow Finance and Economics Conference; Society for the Advancement of Economic Theory Conference; Summer Workshop on Economic Theory

2016 Fudan; Keio; Research Institute for Economics and Business Administration, Kobe; Institute of Economic Research, Kyoto; Osaka; UC Davis; UCSD; Washington State; International Conference on Computing in Economics and Finance; Society for Economic Dynamics Conference; Summer Workshop on Economic Theory; Econometric Society Asian Meeting

2015 Duke; Graduate Research Institute for Policy Studies (Japan); Hitotsubashi (Economics & International Corporate Strategy); Keio; Institute of Economic Research, Kyoto; McGill; Simon Fraser; Université Laval (Finance); University of British Columbia; UC Irvine; UCSD (×2); University of Southern California (×2); University of Tokyo; Darden School of Business, University of Virginia; Williams College; CIREQ Econometrics Conference; Cowles Conference on General Equilibrium and its Applications; Econometric Society World Congress; Society for the Advancement of Economic Theory Conference; Society for Economic Dynamics Conference

2014 Carleton; Federal Reserve Board of Governors; International Corporate Strategy, Hitotsubashi; Institute of Economic Research, Kyoto; UC Berkeley; UC Riverside; UCSD (×2); University of Queensland; University of Technology Sydney; University of Tokyo; Yokohama National University; Australasian Finance and Banking Conference; Info-Metrics Institute Conference; Northern Finance Association Conference; Society for the Advancement of Economic Theory Conference

2013 Brown; Carleton; Hitotsubashi; International Monetary Fund; Rutgers Business School; UCSD (×2); Australian School of Business, University of New South Wales (×2); University of Tokyo; University of Warwick; Yeshiva (×2); Cowles Conference on General Equilibrium and its Applications; International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering

2011 International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering

2010 Annual Workshop on Economic Science with Heterogeneous Interacting Agents

Conference organizations

- Session organizer, "Asset Price Bubbles" (2026 SAET)
- Session organizer, "Power Law in Economics and Finance" (2019 SAET)
- Session organizer, "Power Law in Economics and Finance" (2018 SAET)

Discussions

- "Heterogeneity and Asset Prices: A Different Approach", by Gârleanu and Panageas (2019 UVA Symposium on Financial Economics) (published as "Heterogeneity and Asset Prices: An Intergenerational Approach")
- "Asset Prices and Wealth Inequality", by Matthieu Gomez (2017 NBER Summer Institute, Asset Pricing)
- "Earnings Inequality and Other Determinants of Wealth Inequality", by Benhabib, Bisin, and Luo (2017 ASSA)
- "Higher-Order Effects in Asset Pricing Models with Long-Run Risks", by Pohl, Schmedders, and Wilms (2017 ASSA)
- "Behavioral Macroeconomics via Sparse Dynamic Programming", by Xavier Gabaix (2015 NBER Mathematical Economics Conference)
- "Risk Sharing in International Economies and Market Incompleteness", by Bakshi, Cerrato, and Crosby (2014 Australasian Finance and Banking Conference) (published as "Implications of Incomplete Markets for International Economies")

Editorial service

2023-Present **Co-editor**, *Journal of Mathematical Economics*

2019-Present **Associate Editor**, *Economic Theory & Economic Theory Bulletin*
2020-2022 **Associate Editor**, *Journal of Mathematical Economics*

Referee service

AIMS Bioengineering, American Economic Journal: Macroeconomics (4), American Economic Review, American Economic Review: Insights (3), American Institute of Physics Conference Proceedings, Annals of Finance, Applied Economics, Applied Economics Letters, Archive for History of Exact Sciences, Australian Economic Papers, B.E. Journal of Theoretical Economics, Chaos, Solitons and Fractals, Cognitive Neurodynamics, Czech National Bank Working Papers, Discrete Dynamics in Nature and Society, Econ Journal Watch, Econometrica (18), Economic Inquiry, Economic Journal (2), Economic Modelling, Economic Theory (8), Economic Theory Bulletin (3), Economics and Business Letters, Economics Letters (6), Empirical Economics, Energy Economics, Entropy (3), European Economic Review, Frontiers in Physics (2), Heliyon, International Economic Review (4), International Journal of the Economics of Business, Journal of Applied Econometrics (2), Journal of Banking and Finance (3), Journal of Development Economics, Journal of Economic Behavior and Organization (2), Journal of Economic Dynamics and Control (9), Journal of Economic Interaction and Coordination (4), Journal of Economic Surveys, Journal of Economic Theory (14), Journal of Empirical Finance (3), Journal of the European Economic Association (2), Journal of Mathematical Economics (5), Journal of Monetary Economics (3), Journal of Money, Credit and Banking, Journal of Political Economy (3), Journal of Political Economy: Microeconomics, Journal of Public Economics, Journal of Regional Science, Journal of Risk and Financial Management (3), Journal of the Royal Society Interface (2), Journal of Systems Science and Systems Engineering, Macroeconomic Dynamics (2), Management Science, Notices of the American Mathematical Society, Operations Research, Oxford Bulletin of Economics and Statistics, Physica A (2), PLOS One, Qeios (2), Quantitative Economics (5), Quarterly Journal of Economics, RAIRO - Operations Research, Review of Economic Dynamics (2), Review of Economic Studies (3), Review of Economics and Statistics, Review of Financial Studies, Review of Income and Wealth, Sankhya B, Scientific Reports, Statistical Papers, Statistics and Probability Letters (2), Theoretical Economics (7), Urban Studies

External review

Book project at Springer, GPIF Finance Award, Jan Söderberg Prize, Junko Maru Prize, Moriguchi Prize, PhD Dissertation at Lund University, Tenure letter (×3)

Teaching

Emory

- Advanced Financial Markets (Econ 433, undergraduate): 2025

UCSD

- Microeconomics (Econ 200A, graduate): 2021–2023
- Microeconomics (Econ 200B, graduate): 2016, 2018–2021
- Mathematics for Economists (Econ 205, graduate): 2015, 2016, 2018–2023
- Intertemporal Asset Pricing Theory (Econ 272, graduate): 2014, 2015, 2017, 2019
- 3rd Year Research Paper/Presentation (Econ 285/296, graduate): 2014, 2016
- Mathematical Economics (Econ 113, undergraduate): 2014–2017, 2019, 2020, 2023
- Operations Research (Econ 172B, undergraduate): 2014, 2015
- Financial Markets (Econ 173A, undergraduate): 2019–2024

Yale

- Financial Theory (with Prof. John Geanakoplos, undergraduate): 2012
- General Equilibrium Theory (with Prof. Truman Bewley, undergraduate): 2011
- Microeconomics (with Prof. Truman Bewley, graduate): 2010, 2011

University of Tokyo

- Econometrics (with Prof. Hidehiko Ichimura and Yoichi Arai, graduate): 2007, 2008

Advising

Past Ph.D. students (first job placement)

2025 Anindo Sarkar (Indian School of Business)
2024 Tjeerd de Vries (HEC Paris)
Jin Xi (Chinese Academy of Sciences)
2023 Junxiong Gao (Shanghai Advanced Institute of Finance)

	Shunsuke Hori (Hitotsubashi University)
	Nikolay Kudrin (Queen's University, Post-doc)
	Freddie Papazyan (Texas Tech University)
	Victor Sellemi (Meta)
2022	Linyan Zhu (London School of Economics)
2021	Ritong Qu (International Monetary Fund)
2020	Won-Ki Seo (University of Sydney)
2019	Émilien Gouin-Bonenfant (Columbia University)
	Eul Noh (Freddie Mac)
2018	Won-Ki Seo (Queen's University, Post-doc)
2017	Leland Farmer (University of Virginia)
	Michael Sharifi (Goldman Sachs)
2016	Yoshiyuki Miyoshi (Ministry of Land, Infrastructure, Transport and Tourism, Japan)
2015	Sungje Byun (Federal Reserve Bank of Dallas)
	Xuan Liang (Moody's Analytics)

Current Ph.D. students

Cristhian Rosales

Undergraduate letter writing (placement outcome)

Ph.D.	NYU (2023), Yale (2020), Rochester (2018), UC Irvine (2016)
Master	Carnegie Mellon, Chicago, Columbia, Georgetown, London School of Economics, Ohio State, among others

Other

- Sponsored Econ 697R Directed Study: 2025
- Sponsored Econ 197 Academic Internship Program: 2023 (×3), 2022 (×3), 2021 (×2), 2020, 2014
- Sponsored Econ 199 Special Studies: 2023, 2020, 2019
- Sponsored McNair Program: 2023

Department/University Services

Emory

2025-26	Graduate Committee, Woodruff Fellowships Selection Committee
2024-25	Graduate Committee

UCSD

2023-24	Computational Social Science Education Committee
2022-23	Computational Social Science Education Committee
2021-22	Graduate Admissions Committee, Computational Social Science Education Committee
2020-21	Graduate Admissions Committee, AP Next Program
2019-20	Recruiting Committee, Reading Committee (×3), Ad Hoc Committee
2018-19	Recruiting Committee
2017-18	UCSD Extension Finance Certificate Advisor, Reading Committee (×7)
2016-17	Graduate Admissions Committee, Graduate Review Committee, Reading Committee (×2), Excellence Committee
2015-16	Graduate Admissions Committee
2014-15	Graduate Admissions Committee