### **Curriculum Vita**

# **Leonid Kogan**

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### **Education**

Ph.D., finance	MIT	1999
Ph.D., mechanics	Cornell University	1995
M.Sc., mechanics/		
applied mathematics	Moscow State University	1993

## **Academic appointments**

MIT	Chair of the Finance Group	2017-2021
MIT	Nippon Telephone and Telegraph	2007-present
	Professor of Management	
	Professor of Finance	
MIT	Associate Professor with tenure	2004-2007
MIT	Associate Professor	2003-2004
MIT	Assistant Professor	2001-2003
University of Pennsylvania	Assistant Professor	1999-2001

### Non-academic appointments

J.P. Morgan Chase Chief Investment Scientist of 55ip 2021-present

55ip Chief Investment Scientist 2016-present

Lehman Brothers Senior Researcher 2007-2008

#### **Honors and Awards**

- 2023 Pacific-Basin Finance Journal Research Excellence Award for Kogan, L., J. Li,
   H. Zhang, Y. Zhu, 2023, "Operating Leverage and Asset Pricing Anomalies."
- 2020 NASDAQ award for the best paper on asset pricing at the WFA Conference.
   Awarded for "Common Fund Flows: Flow Hedging and Factor Pricing," with W.
   Dou and W. Wu.
- 2014 Amundi Smith Breeden Prize (first prize) for the best paper published in *Journal of Finance*. Awarded for "Growth Opportunities, Technology Shocks, and Asset Prices," with D. Papanikolaou.
- 2013 Red Rock Finance Conference, best paper award for "Measuring the "Dark Matter" in Asset Pricing Models," with H. Chen and W. Dou.
- 2013 Crowell Memorial Prize (second prize), PanAgora Asset Management. Awarded for "Technological Innovation, Resource Allocation, and Growth," with D. Papanikolaou, A. Seru, and N. Stoffman.
- Runner up for the 2013 Whitebox Prize for Best Financial Research. Awarded for "Mutual Fund Trading Pressure: Firm-Level Stock Price Impact and Timing of SEOs," with M. Khan and G. Serafeim.
- Best paper award at the 2011 Utah Winter Finance Conference. Awarded for "Displacement Risk and Asset Returns," with N. Garleanu and S. Panageas. Previously circulated under the title "The Demographics of Innovation and Asset Returns."
- 2007 Crowell Memorial Prize (first prize), PanAgora Asset Management. Awarded for "Durability of Output and the Cross-Section of Stock Returns," with J. Gomes and M. Yogo.
- 2006 Smith Breeden Prize (first prize) for the best paper published in *Journal of Finance* in areas other than corporate finance. Awarded for "The Price Impact and Survival of Irrational Traders," with S. Ross, J. Wang and M. Westerfield.
- Research Associate, National Bureau of Economic Research, since 2006.
- FAME Research Prize for "The Price Impact and Survival of Irrational Traders," with S. Ross, J. Wang and M. Westerfield, 2004.
- Gutmann Center Research Fellow, 2004.
- Invited to the Review of Economic Studies Tour, 1999.
- Lehman Brothers Fellowship for Research Excellence in Finance, First Prize, 1998.

## **Professional Memberships and Activities**

Chair of the committee for the Stephen A. Ross Prize in	
Financial Economics, awarded by the Foundation for Advancement	
of Research in Financial Economics (FARFE)	2020
Member of the committee for the Stephen A. Ross Prize in	
Financial Economics, awarded by the Foundation for Advancement	
of Research in Financial Economics (FARFE)	2019
Director, Foundation for Advancement	
of Research in Financial Economics (FARFE)	2018-present
Member of Jury, BlackRock's Applied Research Award	2016
Founder and organizer, bi-annual MIT-FARFE Capital Markets	
Research Workshop for PhD students in finance and economics	2013-present
Editor, Review of Financial Studies	2013-2015
Editorial board member, The Critical Finance Review	2011-present
Associate Editor, Management Science	2008-2011
Editorial Board, Mathematics and Financial Economics	2007-2014
Research Associate, National Bureau of Economic Research	2006-present
Faculty Research Fellow, National Bureau of Economic Research	2001-2006
Member of Jury, Lehman Brothers Fellowship for	
Research Excellence in Finance	2005
Member, American Finance Association	1999-present
Member, Western Finance Association	1999-present

Referee for Applied Mathematical Finance, Econometrica, Journal of Economic Dynamics and Control, Journal of Economic Theory, Journal of Finance, Journal of Financial Economics, Journal of Financial Markets, Journal of Political Economy, Mathematical Finance, Quantitative Finance, Review of Financial Studies

## **Subjects Taught**

Foundations of Modern Finance (15.415)	2010-2011,
	2014-present
Introduction to Financial Economics (15.470, 15.416)	2015,
	2017-present
Financial Engineering (15.456, 15.460)	2016-present
Advanced Financial Economics I (15.440J)	2005-2007,
	2009-present
Finance Research Practicum (15.977)	2011
Analytics of Finance (15.450)	2010-2012
Finance Theory I (15.401)	2002-2007

#### Ph.D. Student Dissertation Committees

- Lu Zhang (2002; University of Rochester)
- Dmitry Livdan (2003; University of Houston)
- Mark Westerfield (2004; USC)
- Igor Makarov (2006; Chair; London Business School)
- Dimitris Papanikolaou (2007; Chair; Northwestern University)
- Oleg Rytchkov (2007; Temple University)
- Shawn Staker (2009; Chair; Deutsche Bank)
- Weiyang Qiu (2010; Citigroup)
- Kan Huang (2011; Two Sigma Investments)
- Fernando Duarte (2011; Chair; New York Federal Reserve Bank)
- Mary Tian (2011; Chair; Federal Reserve Board of Governors in Washington DC)
- Sahar Parsa (2011; Tufts University)
- Ngoc-Khanh Tran (2012; Chair; Washington University in St. Luis)
- Eung Jun Brandon Lee (2013; Chair; Goldman Sachs)
- Yichuan Li (2013; Rutgers University)
- Vu Anh Huynh (2014; Goldman Sachs)
- Zhe Zhu (2014; Munich Re)
- Indrajit Mitra (2015; Chair; University of Michigan)
- Yu Xu (2015; University of Hong Kong)
- Dejanir Silva (2016; University of Illinois at Urbana-Champaign)
- Alex Remorov (2016; BlackRock)
- Wei Dou (2017; Chair; University of Pennsylvania)
- Victor Duarte (2018; Chair; Dallas Fed)
- Seung Kwak (2018; Chair; The Federal Reserve Board)
- Yixing Chen (2018; Co-chair; University of Rochester)
- Shomesh Chaudhuri (2018; Post-Doc, MIT)
- Anton Petukhov (2019; Co-chair; Citadel)
- Thomas Ernst (2020; University of Maryland)
- Ali Kakhbod (2021; Rice University)
- Nihal Koduri (2021)

### **Working Papers**

- Kogan, L., A. Lo, Q. Xu, R. Zhang, 2023, "Optimizing a Portfolio of R&D Projects: A Real Options Dynamic Programming Approach."
- Cen, X., W. Dou, L. Kogan, and W. Wu, 2023, "Fund Flows and Income Risk of Fund Managers."

- Huang, Q., D. Papanikolaou, and L. Kogan, 2023, "Productivity Shocks and Inflation in Incomplete Markets."
- Dou, W., L. Kogan, W. Wu, 2023, "Common Fund Flows: Flow Hedging and Factor Pricing." NASDAQ award for the best paper on asset pricing at the 2020 WFA Conference.
- Kogan, L., D. Papanikolaou, L. Schmidt, B. Seegmiller, 2023, "Technology and Labor Displacement: Evidence from Linking Patents with Worker-Level Data."
- Kogan, L., D. Papanikolaou, L. Schmidt, J. Song, 2023, "Technological Innovation and Labor Income Risk."
- Kogan, L., J. Li, H. Zhang, Y. Zhu, 2023, "Operating Leverage and Asset Pricing Anomalies." Winner, 2023 Pacific-Basin Finance Journal Research Excellence Award.
- Kogan, L., J. Li, X. Qiao, 2023, "Asset Growth Effect and Q Theory of Investment."
- Fanti, G., L. Kogan, P. Viswanath, 2022, "Economics of Proof-of-Stake Payment Systems."
- Kogan, L., I. Mitra, 2023, "Near-Rational Equilibria in Heterogeneous-Agent Models: A Verification Method."

### **Permanent Working Papers**

- Kogan, L., M. Tian, 2015, "Firm Characteristics and Empirical Factor Models: a Model-Mining Experiment."
- Haugh, M., L. Kogan, Z. Wu, 2006, "Portfolio Optimization with Position Constraints: an Approximate Dynamic Programming Approach."
- Kogan, L., T. Wang, 2003, "A Simple Theory of Asset Pricing under Model Uncertainty."
- Kogan, L., R. Uppal, 2001, "Risk Aversion and Optimal Portfolio Policies in Partial and General Equilibrium Economies."

### **Publications**

- John, K., L. Kogan, and S. Fahad, 2023, "Smart Contracts and Decentralized Finance." *Annual Review of Financial Economics* 15, 523-542.
- Dou, W., L. Kogan, W. Wu, 2023, "Common Fund Flows: Flow Hedging and Factor Pricing." NASDAQ award for the best paper on asset pricing at the 2020 WFA Conference. Forthcoming, Journal of Finance.
- Kogan, L., J. Li, H. Zhang, 2023, "Operating Hedge and Gross Profitability Premium." Forthcoming, Journal of Finance.
- H. Chen, Dou, W., L. Kogan, 2023, "Measuring the "Dark Matter" in Asset Pricing Models." *Forthcoming, Journal of Finance.* Winner of best Paper award at the 2013 Red Rock Finance Conference.

- Chen, W., M. Khan, L. Kogan, G. Serafeim, 2021, "Cross-firm return predictability and accounting quality," *Journal of Business Finance & Accounting* 48, nos. 1-2, 70-101.
- Kogan, L., D. Papanikolaou, N. Stoffman, 2020, "Left Behind: Creative Destruction, Inequality, and the Stock Market," *Journal of Political Economy*, 128, 855-906.
- Kogan, L., D. Papanikolaou, 2019, "Technological Innovation, Intangible Capital, and Asset Prices," *Annual Review of Financial Economics*, 11, 221-242.
- Fanti G., Kogan L., Oh S., Ruan K., Viswanath P., Wang G. (2019) "Compounding of Wealth in Proof-of-Stake Cryptocurrencies." In: Goldberg I., Moore T. (eds) Financial Cryptography and Data Security. FC 2019. Lecture Notes in Computer Science, vol 11598. Springer, Cham.
- Kogan, L., D. Papanikolaou, 2018, "Equilibrium Analysis of Asset Prices: Lessons from CIR and APT," Journal of Portfolio Management, 44, 59-69.
- Kogan, L., D. Papanikolaou, A. Seru, and N. Stoffman, 2017, "Technological Innovation, Resource Allocation, and Growth." Quarterly Journal of Economics, 132, 665-712.
- Kogan, L., S. Ross, J. Wang, and M. Westerfield, 2017, "Market Selection." *Journal of Economic Theory*, 168, 209-236.
- Kogan, L., D. Papanikolaou, 2014, "Growth Opportunities, Technology Shocks, and Asset Prices." *Journal of Finance*, 69, 675-718. 2014 Amundi Smith Breeden Prize (first prize) for the best paper published in *Journal of Finance*.
- Huynh, V., L. Kogan, E. Frazzoli, 2014, "A Martingale Approach and Time-Consistent Sampling-Based Algorithms for Risk Management in Stochastic Optimal Control." *Decision and Control (CDC)*, 2014 IEEE 53rd Annual Conference, 1858-1865.
- Kogan, L., D. Papanikolaou, 2013, "Firm Characteristics and Stock Returns: The Role of Investment-Specific Shocks." *Review of Financial Studies*, 26, 2718-2759.
- Kogan, L., D. Papanikolaou, 2012, "Economic Activity of Firms and Asset Prices." Annual Review of Financial Economics, 4, 361-384.
- Garleanu, N., L. Kogan, S. Panageas, 2012, "Displacement Risk and Asset Returns." Journal of Financial Economics, 105, 491-510. Best paper award at the 2011 Utah Winter Finance Conference. Previously circulated under the title "The Demographics of Innovation and Asset Returns."
- Khan, M., L. Kogan, G. Serafeim, 2012, "Mutual Fund Trading Pressure: Firm-Level Stock Price Impact and Timing of SEOs." *Journal of Finance*, 67, 1371-1395. Runner up for the 2013 Whitebox Prize for Best Financial Research.
- Kogan, L. D. Papanikolaou, 2010. "Growth Opportunities and Technology Shocks." American Economic Review, P&P, 100, 532-536.
- Gomes, J., Kogan, L., and M. Yogo, 2009, "Durability of Output and the Cross-Section of Stock Returns," *Journal of Political Economy*, 117, 941-986. 2007 Crowell Memorial Prize (first prize).
- Kogan, L., D. Livdan, A. Yaron, 2008, "Oil Futures Prices in a Production Economy with Investment Constraints," *Journal of Finance* 64, 1345-1375.

- Kogan, L., 2008, "A Dynamic Default Correlation Model," *Quantitative Credit Research Quarterly Q2/3, Lehman Brothers.*
- Kogan, L., V. Konstantinovsky, 2008, "Commodity Futures and Inflation," *Global Relative Value, Lehman Brothers*.
- Kogan, L., M. Haugh, 2007, "Duality Theory and Approximate Dynamic Programming for Pricing American Options and Portfolio Optimization," in Handbooks in Operations Research and Management Science: Financial Engineering, 15, Ch. 23. (Eds.: J. Birge, V. Linetsky). Elsevier, North-Holland.
- Kogan, L., I. Makarov, and R. Uppal, 2007, "The Equity Risk Premium and the Riskfree Rate in an Economy with Borrowing Constraints." *Mathematics and Financial Economics* 1, 1-19. Lead article, inaugural issue.
- Kogan, L., S. Ross, J. Wang, and M. Westerfield, 2006, "The Price Impact and Survival of Irrational Traders." *Journal of Finance* 61, 195-229. 2006 Smith Breeden Prize (first prize) for the best paper published in Journal of Finance. 2004 FAME Research Prize.
- Haugh, M., Kogan, L., J. Wang, 2004, "Evaluating Portfolio Policies: A Duality Approach," *Operations Research* 54, 405-418.
- Kogan, L., 2004, "Asset Prices and Real Investment," *Journal of Financial Economics* 73, 411-432. Lead article.
- Haugh, M., and L. Kogan, 2004, "Pricing American Options: A Duality Approach," *Operations Research* 52, 258-270.
- Gomes, J., L. Kogan, and L. Zhang, 2003, "Equilibrium Cross-Section of Returns," *Journal of Political Economy* 111, 693-732. Lead article.
- Chan, Y., and L. Kogan, 2002, "Catching Up with the Joneses: Heterogeneous Preferences and the Dynamics of Asset Prices," *Journal of Political Economy* 110, 1255-1285.
- Kogan, L., 2001, "An Equilibrium Model of Irreversible Investment," *Journal of Financial Economics* 62, 201-245. Lead article.
- Bertsimas, D., L. Kogan, and A. Lo, 2001, "Hedging Derivative Securities and Incomplete Markets: An  $\epsilon$ -Arbitrage Approach," *Operations Research* 49, 372-397.
- Bertsimas, D., L. Kogan, and A. Lo, 2000, "When Is Time Continuous?" *Journal of Financial Economics* 55, 173-204.

### **Invited Oral Presentations**

- "Irreversible Real Investment and Asset Prices,"
  - New York University, 1998;
  - University of California at Los Angeles, 1999;
  - University of Chicago, GSB, 1999;
  - Northwestern University, 1999;
  - Carnegie Mellon University, 1999;

- University of California at Berkeley, 1999;
- Wharton School, University of Pennsylvania, 1999;
- University of Rochester, 1999;
- Yale University, 1999;
- Columbia University, 1999;
- Washington University at St Louis, 1999;
- o Princeton, Economics Department, 1999;
- University of Chicago, Economics Department, 1999.
- "Catching Up with the Joneses: Heterogeneous Preferences and the Dynamics of Asset Prices,"
  - London Business School, 2000;
  - o Platinum Hill Partners, CT, 2000;
  - University of Texas at Austin, 2001.
- "Equilibrium Cross-Section of Returns,"
  - University of British Columbia, 2000;
  - University of Chicago, GSB, 2001;
  - o UCLA, 2001;
  - Stanford University, 2001.
- "The Price Impact and Survival of Irrational Traders,"
  - New York University, 2002;
  - London Business School, 2002;
  - University of Minnesota, 2002;
  - University of Maryland, 2003;
  - Stockholm School of Economics, 2003;
  - Duke University, 2004;
  - Oslo University, 2004;
  - University of Vienna, 2004;
  - Wharton School, 2004;
  - University of Geneva, 2004;
  - University of Lausanne, 2004.
- "Pricing American Options: A Duality Approach," Gutmann Center, University of Vienna, 2004.
- "Durability of Output and the Cross-Section of Stock Returns,"
  - o Goldman Sachs Asset Management, 2006;
  - Brigham Young University, 2006.
- "Futures Prices in a Production Economy with Investment Constraints," Center for Energy and Environmental Policy Research workshop, MIT, 2006.
- "Displacement Risk and Asset Returns," (previously circulated under the title "The Demographics of Innovation and Asset Returns")
  - University of Lausanne, 2008;
  - Boston University, 2008;
  - London School of Economics, 2008;
  - London Business School, 2008;

- Q-Group Meeting, Fall 2009;
- Columbia University, 2009.
- "Growth Opportunities and Investment-Specific Technology Shocks,"
  - SQA Meeting, New York, 2009;
  - SITE Conference, Stanford University, 2009;
  - University of Texas, Austin, 2010;
  - o Boston University, 2011.
- "Mutual Fund Trading Pressure: Firm-Level Stock Price Impact and Timing of SEOs," London School of Economics, 2009.
- "Firm Characteristics and Stock Returns: The Role of Investment-Specific Shocks."
  - University of Chicago, 2011;
  - Princeton University, 2011;
  - o NYU, 2012;
  - Catolica Lisbon, 2012;
  - Bocconi University, 2012;
  - Vienna Graduate School of Finance, 2012;
  - Duke University, 2012;
  - Imperial College Business School, 2012;
  - Warwick Business School, 2012;
  - o D.E Shaw Group, 2013.
- "Left Behind: Creative Destruction, Inequality, and the Stock Market," (previously ciurculated under the title "Winners and Losers: Creative Destruction and the Stock Market")
  - Washington University, St. Louis, 2012;
  - University of Geneva, 2013;
  - University of Lausanne, 2013;
  - Rice University, 2013;
  - University of Connecticut, 2013;
  - o Barclays, 2014;
  - Stockholm School of Economics, 2014;
  - University of South Australia, 2014;
  - University of New South Whales, 2014;
  - University of Sydney, 2014;
  - University of Technology Sydney, 2014;
  - Magill University, 2014;
  - o Emory, 2015;
  - Wharton, 2015;
  - Georgetown University, 2015;
  - University of Washington, Seattle, 2015;
  - Swiss Finance Institute, Lugano, 2015;
  - Erasmus University, Rotterdam, 2015;
  - Copenhagen Business School, 2015;

- University of Miami, 2015;
- Monash University, Melbourne, 2016;
- Baruch College, 2016;
- HEC, Paris, 2016;
- Tinbergen Institute, Amsterdam, 2016;
- Catolica, Lisbon, 2016;
- University of Texas, Dallas, 2016;
- University of Arizona, 2016;
- Office of Financial Research, U.S. Department of the Treasury, 2016;
- HKUST, Hong Kong, 2016;
- o CUHK, Hong Kong, 2016;
- HKU, Hong Kong, 2016;
- o Georgia Tech, 2017.
- "Technological Innovation, Resource Allocation, and Growth,"
  - PanAgora Asset Management, 2013;
  - SQA Meeting, New York, 2015.
- "Measuring the "Dark Matter" in Asset Pricing Models,"
  - Red Rock Finance Conference, Salt Lake City, 2013;
  - London School of Economics, 2014;
  - Collegio Carlo Alberto, 2014;
  - Northwestern University, 2014;
  - University of Chicago, 2014;
  - Cheung Kong Graduate School of Business, 2014;
  - Shanghai Advanced Institute of Finance, 2014.
- "Accuracy Verification for Numerical Solutions of Equilibrium Models,"
  - o INSEAD, 2016;
  - UC Berkeley, 2017;
  - o UCLA, 2017.
- "Technological Innovation and the Distribution of Labor Income Growth,"
  - Duke University, 2018;
  - o UNC, 2018;
  - o Stanford, 2018;
  - o USC, 2018;
  - o UIUC, 2018;
  - University of Minnesota, 2018;
  - Frankfurt School of Finance & Management, 2018;
  - Goethe University Frankfurt, 2018;
  - Luxembourg School of Finance, 2018.
- "Common Fund Flows: Flow Hedging and Factor Pricing,"
  - Georgia State University, 2020;
  - UT Austin, 2021;
  - Peking University, 2021;
  - Yale University, 2021.

- "Operating Hedge and Gross Profitability Premium,"
  - o LSE, 2021
  - o SAIF, 2021
- "Economics of Proof-of-Stake Payment Systems," Wharton, Finance Department Macro Group, 2022
- "Productivity Shocks and Inflation in Incomplete Markets,"
  - Harvard Business School, 2023;
  - Dartmouth Tuck, 2023;
  - University of Michigan, 2023.
- "Technology, Vintage-Specific Human Capital, and Labor Displacement: Evidence from Linking Patents with Occupations," NYU Stern, 2023.

### **Presentations at Conferences and Professional Societies**

- "Irreversible Real Investment and Asset Prices," Western Finance Association Meetings, 1999.
- Discussion, Western Finance Association Meetings, 1999.
- "Catching Up with the Joneses: Heterogeneous Preferences and the Dynamics of Asset Prices."
  - Western Finance Association Meetings, 2000;
  - National Bureau of Economic Research Asset Pricing Meeting, Fall 2000;
  - o Platinum Hill Partners, CT, 2000.
- "Risk Aversion and Optimal Portfolio Policies in Partial and General Equilibrium Economies,"
  - Western Finance Association Meetings, 2000;
  - First World Congress of the Bachelier Finance Society, Paris, 2000.
- "Equilibrium Cross-Section of Returns," National Bureau of Economic Research Summer Institute, 2001.
- Discussion, American Finance Association Meetings, 2001.
- Discussion, Western Finance Association Meetings, 2001.
- "Pricing American Options: A Duality Approach," Risk Conference, 2002.
- Discussion, American Finance Association Meetings, 2003.
- "The Survival and Price Impact of Irrational Traders,"
  - National Bureau of Economic Research Summer Institute, 2002;
  - Texas Finance Festival, 2003.
- Discussion, UBC Finance Conference, 2003.
- Two discussions, American Finance Association Meetings, 2004.
- Discussion, National Bureau of Economic Research Summer Institute, 2004.
- Discussion, National Bureau of Economic Research Fall Meetings, 2004.

- Discussion, American Finance Association Meetings, 2005.
- Discussion, Duke Finance Conference, 2005.
- Discussion, IDC Herzliya, 2005.
- Discussion, Western Finance Association Meetings, 2005.
- Discussion, National Bureau of Economic Research Fall Meetings, 2005.
- Discussion, Bureau of Economic Research, Universities Research Conference, 2005.
- Discussion, Western Finance Association Meetings, 2006.
- Discussion, National Bureau of Economic Research Summer Institute, 2006.
- "Futures Prices in a Production Economy with Investment Constraints," Center for Energy and Environmental Policy Research workshop, MIT, 2006.
- Discussion, National Bureau of Economic Research Summer Institute, 2007.
- Discussion, Duke/UNC Asset Pricing Conference, 2007.
- "Growth Opportunities and Investment-Specific Technology Shocks,"
  - North American Econometric Society Meeting, 2009;
  - o American Economic Association Meeting, 2010.
- Discussion, American Economic Association Meeting, 2010.
- Discussion, American Economic Association Meeting, 2011.
- Panel discussion, American Economic Association Meeting, 2011.
- Discussion, Texas Finance Festival, 2012.
- "Firm Characteristics and Stock Returns: The Role of Investment-Specific Shocks."
  - University of British Columbia Summer Finance Conference, 2012;
  - American Finance Association Meetings, San Diego 2013.
- Discussion, American Economic Association Meetings, San Diego 2013.
- "Measuring the "Dark Matter" in Asset Pricing Models." Red Rock Finance Conference, 2013.
- "Economic Activity of Firms and Asset Prices." Annual Review of Financial Economics Conference, Cambridge MA, 2013
- Discussion, American Finance Association Meetings, Philadelphia, 2014.
- "Accuracy Verification for Numerical Solutions of Equilibrium Models,"
  - Minnesota Macro-Asset Pricing Conference, 2013;
  - Duke-UNC Asset Pricing Conference, 2014;
  - Society for Economic Dynamics Annual Meeting, Toronto 2014.
- "Technological Innovation: Winners and Losers." QPS Advisory Council, Barclays, New York, 2014
- "Risk and Asset Composition." European Summer Symposium in Financial Markets, Gerzensee, 2014.
- Discussion, American Finance Association Meetings, Boston, 2015.
- CME-MSRI Prize, panel discussion, 2015.
- Keynote address, "Technologic Innovation and the Stock Market," 2016 Finance Down Under conference.

- Discussion, International Conference of Sovereign Bond Markets, New York, 2016.
- Discussion, Western Finance Association Meetings, 2016.
- Discussion, NBER Long Term Investing Conference, 2016.
- "Technological Innovation and the Distribution of Labor Income Growth," Advances in Macro-Finance Tepper-LAEF Conference, Pittsburgh 2017.
- "Winners and Losers: Creative Destruction and the Stock Market," AEA Meetings, 2017.
- Discussion, NBER Capital Markets and the Economy Meeting, Summer 2017.
- Discussion, Miami Behavioral Finance Conference, 2017.
- Discussion, American Finance Association Meetings, Philadelphia, 2018.
- Discussion, American Economic Association Meetings, Atlanta, 2019.
- Discussion, UCLA Anderson Fink Center Conference on Financial Markets, 2019.
- "Technological Innovation and the Distribution of Labor Income Growth," BI-SHoF Conference, BI Norwegian Business School, 2019
- "Economics of Proof-of-Stake Payment Systems,"
  - o 12th Annual Paul Woolley Centre Conference, LSE, 2019;
  - 2019 NBER Conference: Blockchain, Distributed Ledgers, and Financial Contracting;
  - o 2020 WFA Conference;
  - 2020 Conference on The Economics of Distributed Ledger Technology, University of Cambridge;
  - 2020 LA Blockchain Summit.
- "Operating Hedge and Gross Profitability Premium,"
  - o 2019 Conference, Frontiers in Finance, New York;
  - 2020 AFA Meetings, San Diego.
- Discussion, 2020 BYU Red Rock Conference.
- "Common Fund Flows: Flow Hedging and Factor Pricing,"
  - o 2020 WFA Conference;
  - 2020 Virtual Finance Theory Seminar;
  - o 2021 NBER Asset Pricing Meeting;
  - o 13th Annual Paul Woolley Centre Conference, LSE, 2021.
  - 8th Conference on Financial Markets and Corporate Finance, Shanghai University of Finance and Economics, 2021. Keynote presentation.
- Discussion, GCFP Conference, "Building and Regulating the New Financial Infrastructure," 2022.
- "Asset Growth Effect and Q Theory of Investment," NFA Meeting, 2023.
- Discussion, NFA Meeting, 2023.
- "Technology, Vintage-Specific Human Capital, and Labor Displacement: Evidence from Linking Patents with Occupations," 9<sup>th</sup> BI-SHoF Conference, BI Norwegian Business School, 2023.

- "Productivity Shocks and Inflation in Incomplete Markets," 11<sup>th</sup> Workshop on Investment- and Production-Based Asset Pricing, BI Norwegian Business School, 2023.
- Keynote address, "Productivity Shocks and Inflation in Incomplete Markets," UT Dallas 2023 Fall Finance Conference.
- Keynote address, "Technology, Vintage-Specific Human Capital, and Labor Displacement: Evidence from Linking Patents with Occupations," 2023 CIREQ Macroeconomics Conference: Innovation and the Future of the Labor Market, Montreal.