University of Cambridge

Peter Bossaerts

Tel: +44.122.333.5235; Email: plb32@cam.ac.uk

Faculty of Economics
University of Cambridge
Sidgwick Avenue
Cambridge CB3 9DD
United Kingdom

Web site: https://www.econ.cam.ac.uk/people/faculty/plb32

Honours	Fellow of The Econometric Society (Elected 2010)
	Fellow of The Society for the Advancement of Economic Theory (Elected 2011)
	Redmond Barry Distinguished Professor at The University of Melbourne (Elected 2016)
	Fellow of the Academy of Social Sciences in Australia (Elected 2017)
	Professorial Fellow, Robinson College (Cambridge) (Elected 2023)

Academic Appointments – Primary	Leverhulme International Professor of Neuroeconomics, University of Cambridge (Established Non-clinical Academic)	2022 –
	Professor, Experimental Finance & Decision Neuroscience, University of Melbourne	2014–2022
	Honorary Professorial Fellow, Florey Institute of Neuroscience and Mental Health	2014 – 2018
	David Eccles Professor of Finance	
	& Adjunct Professor of Neurology, University of Utah	2013 – 2015
	William D Hacker Professor of Economics and Management, Caltech	2003 – 2013
	Swiss Finance Institute Professor, EPFL	2007 - 2012
	Professor of Finance, Caltech	1998 – 2013
	Associate Professor of Finance, Caltech	1994 - 1998
	Research Professor of Investments Analysis, Tilburg University	1994 - 1996
	Assistant Professor of Finance, Caltech	1990 - 1994
	Assistant Professor of Finance, Carnegie Mellon University	1987 - 1990

Academic Appointments – Secondary	Visiting Professor, Geneva Finance Research Institute, University of Geneva	2021
	Visiting Associate in Finance, Caltech	2013 – 2020
	Visiting Professor, Cambridge University	2012 - 2014
	Honorary Professorial Fellow, University of Melbourne	2012 – 2013
	Fellow, UTS Market Design Centre	2014 - 2017
	Research Fellow, Centre for Economic Policy Research	1995 – 2014
	Fellow, University of Zurich Center for Engineering Social & Economic Institutions	2012 - 2014

	Affiliate, USC Theoretical Research in Neuroeconomic Decision Making (TREND)	2012 –
	Member of the Computation and Neural Systems group, Caltech	2006 – 2013
	Swiss Finance Institute Visiting Professor, University of Lausanne	2006 – 2007
	Fellow, Center of Excellence, Kobe University	2006
	Guest Professor, University of Zurich	2004
	Leif Johansen Distinguished Visiting Scholar, Norwegian School of Management	1999
	Visiting Associate Professor of Finance, Yale University	1998
	Postdoctoral Research Fellow, Carnegie Mellon University	1986 – 1987
Academic Appointments – Executive	Director, R. and M. Linde Institute of Economic and Management Sciences, Caltech	2011-12
	Co-Dean, College of Management, EPFL	2008
	Founding Program Chair, Master in Financial Engineering, EPFL	2007-8
	Chair, Division of The Humanities and Social Sciences, Caltech	2006-7
	Executive Officer for the Social Sciences, Caltech	2002-5
Industry Experience	Executive Education, Behavioral Finance and Algorithmic Trading, Foundation William E. Simon Graduate School of Business Administration in Switzerland	2015 – 2021
	Advisory Board, Dysrupt Labs (Melbourne, Australia)	2017 –
	Scientific Committee, Geneva Institute for Wealth Management	2017 –
	Scientific Committee, The Future Resilient Systems (FRS) programme of the Singapore-ETH Centre	2020 – 2022
	Lectures, several organizations: Willis Towers Watson (Australia), i3 (Australia), CLSA (Hong Kong), KBC (Belgium), BayernLB (Germany), Julius Baer (Zurich), Pictet (Geneva), SAC (New York), Nokia (Helsinki), Portfolio Construction Forum (Sydney), KWS (Germany), …	
Education	Ph.D. (Management), UCLA	1983 – 1986
	Coursework, Master's Program in Statistics, Free University Brussels	1982 – 1982
	Doctorandus (Applied Economics), UFSIA (Summa Cum Laude)	1981 – 1982
	Licenciaat (Applied Economics), UFSIA (Cum Laude)	1977 – 1981
Grants	Leverhulme Trust International Professorship, nominated by Cambridge University, 5 years, 3,880,720 GBP, 2022-2027.	
	Australian Research Council, for the Linkage Project "Continuous Combinatorial Order Processing in Financial Markets," 2019-21.	
	Australian Research Council, for the Discovery Project "A New Framework to Improve Human-Robot Interaction in Financial Markets," 2018-20.	
	National Science Foundation, for the project "Price Quality in Dark Markets: Tests of the Duffie-Malamud-Manso Theory Using Controlled Experiments," 2014-6, with Elena Asparouhova (University of Utah)	

National Science Foundation, for the project "Workshop for the Promotion of Experimental Validation of the Theory of Asset Pricing," 2014-5, with Elena Asparouhova (University of Utah)

Fondation Banque de France, for the project "Price Quality in Dark Markets," 2014-5, with Elena Asparouhova (University of Utah)

National Science Foundation, for the project "US-German Collaboration: Computational and Neural Mechanisms of Inference over Decision-Structure," 2012-15, joint with John O'Doherty (Caltech) and Jan Gläscher (University Medical Center Hamburg).

National Science Foundation, for the project "Market Bubbles As Expression Of Social Norms: Experiments," 2011-13, Grant #SES-1061824, with Elena Asparouhova (University of Utah)

Swiss National Science Foundation, for the SystemX.ch project "Neural Correlates of Collective Decision Making: From Molecules to Minds," 2008-12 (co-PI)

Swiss National Science Foundation, NCCR Finrisk 3rd Phase, for the project "Behavioural Finance," 2008-13 (with Ernst Fehr and Thorsten Hens)

AXA Foundation Grant For A Postdoctoral Student, 2006-8.

Inquire Europe, for the project "Will Equilibrium-Induced Predictability Survive Undoing By The Uninitiated And Skeptical?" 2006-8.

Co-Principal, Tamagawa University-Caltech Center of Excellence grant

Moore Foundation grant to Caltech, for the project "Experimentation with Large, Diverse and Interconnected Socio-Economic Systems," 2006-11.

National Science Foundation, for the project "Experiments on Information and Information Processing in Financial Markets," 2006-11, Grant #SES-0616431, with Elena Asparouhova (University of Utah) and William Zame (UCLA)

National Science Foundation, for the project "How Asset Markets Assist Complex Problem Solving: Identifying The Cues Through Neurocorrelates," 2005-2010, Grant #SBE-0527491

National Science Foundation, for the project "The Evolution of Prices and Allocations in Markets: Theory and Experiment," 2003-2006, Grant #SES-0317715, with William Zame (UCLA)

National Science Foundation, for the project "Perfectly Rational Markets, Imperfectly Rational Traders: Theory and Experiment," 2000-2003, Grant #SES-0079374, with William Zame (UCLA)

Grant to support research on financial markets from the R.G. Jenkins Family Fund of the Fidelity Investments Charitable Gift Fund, 2000

Research Grant from State Street Bank to Caltech for the Proposal "Assessing The Severity of the Absence of 'Packaging' Possibilities At the NYSE Open," 1999

Research Grant, "Participation of Boundedly Rational Agents in Financial Markets: Effects on Speculation, Trading Volume and Price Volatility," European Union, Grant #ERB4001GT950936, 1995-6

Grant, "Local Parametric Analysis of Hedging In Discrete Time," Royal Dutch Academy of Sciences, 1995.

Research Grant from First Quadrant to Caltech for the Proposal "Forecasting Non-Stationary Financial Return Data," August 93-July 94

Standard Oil Research Chair Award, Summer 1987

UNIVERSITY OF CAMBRIDGE

Awards	2025 IQAM Review of Finance Best Paper in Investments Award (Runner-Up) for the article "Humans in Charge of Trading Robots: The First Experiment."
	2021 Australian Financial Review Higher Education Award, Teaching and Learning Category, 3rd place, for the class "Fundamentals of Fintech"
	2020 Financial Management Association (FMA) Innovation in Teaching Award, for "Teaching Algorithmic Trading as A Hands-On Robotics Class"
	2018 Best Paper Award, Behavioral Finance and Capital Markets Conference, Latrobe University (September 2018), for "Building Financial Skills Training Schemes"
	2017 Financial Management Association (FMA) Best Paper Award (Markets & Institutions) for: "Costly Information Acquisition in Decentralized Markets: An Experiment," with Elena Asparouhova and Wenhao Yang
	2014 Pagano and Zechner Prize for Best Non-Investments Article Published in the Prior Year in the Review of Finance, for: "The Speed of Information Revelation and Eventual Price Quality in Markets with Insiders: Comparing Two Theories"
	Doctoral Faculty 2014 Teaching Excellence Award, David Eccles School of Business, University of Utah
	2013 Best Paper Award, Behavioral Finance and Capital Markets Conference, Centre for Applied Financial Studies of The University of Adelaide (August 2013), for: "'Lucas' in the Laboratory"
	Lloyd's Science of Risk 2011 Prize for "Hedging your bets by learning about reward correlations in the human brain," published in Neuron
	Review of Finance 2004 Goldman Sachs Asset Management Best Research Paper Award for the paper "Basic Principles of Asset Pricing Theory: Evidence From Large-Scale Experimental Financial Markets"
	Journal of Financial Markets 2003 Best Paper Award for the paper "Excess Demand and Equilibration in Multi-Security Financial Markets: The Empirical Evidence"
	Mathematical Finance 1993 Best Paper Award (Third Prize) for the paper "A Test of a General Equilibrium Stock Option Pricing Model"
Keynote Lectures – Since 2007	"Decision Making When Complexity Causes Uncertainty," *International Behavioural Public Policy Association Conference*, Brisbane (Australia), September 2026.
	"Neurofinance," *Neuroeconomics Summer School 2025*, Society for Neuroeconomics, INSEAD, August 2025
	"Decision Making When Complexity Causes Uncertainty," 15th Annual Conference of ASFEE, Nancy (France), June 2025.
	"Decision Making When Complexity Causes Uncertainty," Annual Meetings of the *Society for Psychoneuroeconomics*, Dublin (Ireland), June 2025.
	"Decision Making When Complexity Causes Uncertainty," Workshop on Computational Complexity of Decision-Making, University of Melbourne, November 2024.
	"Computational Complexity and (Primate) Decision Making," Summer School on Cognitive Foundations of Decision-Making, University Mohammed VI, Rabat, Morocco, July 2024.

"How Humans Deal with Complexity (Including Taking Prescription Drugs)," The Economist's Society, London (U.K.), November 2023.

"How Humans Deal with Complexity (Including Taking Prescription Drugs)," Geneva Institute for Wealth Management, 5th Anniversary Conference, November 2023.

"Computational complexity and human decision-making," Monash Business Behavioural Lab Symposium, November 2022.

"Complexity as a Neglected Source of Uncertainty," Geneva Conference on Neurofinance, November 2021.

"Reinforcement Learning: From Animal Learning to Machine Learning and the Brain... and Back," 13th Annual Meetings of the Society for Financial Econometrics, San Diego, June 2021.

"Information Structure and Aggregation: Theory, Experiments, and Implications for Prediction Markets," International Fintech Conference, The Hebrew University, March 2020 (Postponed).

"The Relevance of Theoretical Finance in a World of Behavioral Finance," North American Meeting of the Society for Experimental Finance, Salt Lake City, February 2020

"The Relevance of Theoretical Finance in a World of Behavioral Finance," 9th Behavioural Finance and Capital Markets Conference, Melbourne, October 2019

"Computational Complexity and Asset Pricing," 9th Helsinki Finance Summit, Helsinki (Finland), August 2019

"Performing Complex Tasks: Behavior, Biology and Pharmacology," Conference on Experiments Applied to Corporate and Entrepreneurial Finance, Laboratoire Magellan, Lyon (France), June 2019

"Towards Biological Foundations of Decisions with Uncertainty: A Mission Incomplete," Melbourne Brain Symposium, October 2018

"Asset Pricing under Computational Complexity," FIRN 2018 Asset Pricing Conference, Melbourne, October 2018

"Modeling Ignorance: Uncertainty or Complexity?" Research in Behavioral Finance Conference, Amsterdam, September 2018

"Asset Pricing under Computational Complexity," NTU Behavioral and Experimental Economics Workshop, Singapore, August 2018

"Asset Pricing under Computational Complexity," Behavioural and Experimental Economics and Finance Workshop, Sydney, July 2018

"Modeling Ignorance: Uncertainty or Complexity?" Experimental Finance Workshop, Max Planck Institute (Bonn, Germany), June 2018

"Human-Robot Interaction in Financial Markets: Experiments," Workshop on Algorithmic Trading, University of Luxemburg, June 2018

"Modeling Ignorance: Uncertainty or Complexity?" The Computational Neuroscience of Prediction, Federation of European Neuroscience Societies, Rungstedgaard, Denmark, April 2018

"How Neurobiology Can Inform Decision Science," Asia-Pacific Meetings of the Economic Science Association Meetings, Brisbane, 2018.

"Towards an Experimental Framework to Study and Improve Human-Robot Interaction in Financial Markets," Market Design and Regulation in The Presence of High-Frequency Trading, Hong Kong, December 2017

"Fact and Fiction in Finance: The Scientist's View," 24th CLSA Investors' Forum, Hong Kong, September 2017

"How Neurobiology Can Inform Decision Science: The Case of Trading Skill," 2017 Conference of the Association for NeuroPsychoEconomics, Antwerp (Belgium).

"How Do Humans Perceive Financial Risks?" 2016 North-American Meetings of the Society for Experimental Finance, Tucson AR (USA).

"Neuro-biological Foundations of Financial Market Psychology," Sixth Behavioural Finance and Capital Markets Conference, Adelaide (Australia), September 2016

"Using Alpha to Generate Alpha," CIFR Conference on Investment Management and Markets, Sydney (Australia), May 2016.

"Neuro-biological Foundations of Financial Market Psychology," Auckland Finance Meeting, December 2015

"Human Reaction To Leptokurtosis and Its Biological Foundations," Australasian Society for Cognitive Science, Monash University, December 2014

"Human Reaction To Leptokurtosis and Its Biological Foundations," Financial Management Association European Meetings, Maastricht (The Netherlands), June 2014

"Outlier Risks," Third Behavioral Finance and Capital Markets Conference, Adelaide (Australia), August 2013

"Outlier Risks," World Meetings of the Economic Science Association, Zurich, July 2013

"The Neurobiology Behind Human Decision Making," 2013 Finance Down Under Conference, Melbourne (Australia), March 2013

"The human brain behind financial skill," Joint Symposium, National Taiwan University, National Chengchi University, National Yang-Ming University, Taipei (Taiwan), March 2012

"The human brain behind financial skill." Second Miami Behavioral Finance Conference, December 2012

"The human brain behind financial skill." Swiss Finance Institute Annual Meeting, November 2011

"Double-Sided Markets," C-Suite Lunch Talk, Australian Graduate School of Management, University of New South Wales, April 2011

"Neurobiological Foundations of Decision Making under Uncertainty," Finance Down Under, University of Melbourne, March 2011

"Experimental Finance," Finance Down Under, University of Melbourne, March 2011

"Market Bubbles and Crashes as an Expression of Tension between Social and Individual Rationality: Theory and Experiments," WISE International Workshop on Experimental Economics and Finance, Xiamen University, China, December 2010

"Experiments on Market Dynamics," Experimental Finance 2010 Conference, University of Gothenburg, Sweden, October 2010

"What Decision Neuroscience Teaches Us about Financial Decision Making," Marian Miner Cook Athenaeum Lecture, Claremont McKenna College, March 2010

"Neuroscience and Decision Making," at: A Birdseye View of Finance: Past, Present, and Future Frontiers, Conference organized in honor of Haim Levy, Jerusalem, August 2009

"Experimenting With Financial Markets," Austrian Central Bank, June 2009

"Strategic Uncertainty In Games and Markets: A Neuroeconomic Perspective," at: 5th International Meeting On Experimental And Behavioral Economics, Granada (Spain), April 2009

"Potential Policy Implications of Neuroeconomics," at: The Social Brain, symposium organized by the Royal Academy of Arts, Manufacture and Commerce (RSA) and the Wellcome Trust, London, January 2009

"Decision Making under Uncertainty: Risk and Risk Learning," Building Bridges in Medical Sciences, Cambridge University Medical School, November 2008

"The Neuroeconomics of Decision Making," World Economic Forum, Geneva, September 2008.

"Neurobiological Foundations of Perception and Decision under Uncertainty," 2008 International Economic Science Association Conference, California Institute of Technology, June 2008

"Neurobiological Foundations of Perception and Decision under Uncertainty," Fourth Asia Pacific Meeting of the Economic Science Association, National University of Singapore, February 2008

"Neurobiological Foundations of Perception and Decision under Uncertainty," 9th Biennial Symposium "Neuroeconomics: Decision Making and the Brain," New York University Center for Neural Science, January 2008

"The Neuroeconomics of Decision Making," 30th Annual Meeting of Japan Neuroscience Society, September 2007

"The Neuroeconomics of Decision Making," Second ESA Asia-Pacific Regional Meeting, Osaka (Japan), February 2007

Engagement	Workshop for the Promotion of Experimental Validation of the Theory of Asset Pricing, Sundance Resort, Utah, October 2015; co-organiser (with Elena Asparouhova); workshop funded by the U.S. National Science Foundation, Fondation Banque de France, a grant from the Moore Foundation to Caltech, and The University of Utah.

Society for Neuroeconomics, President (2011-2), Board member (2007-2014), Council member (2015-16)

Society for Experimental Finance, President (2017-9), Founding member (2011), Chief Organizer of 2018 Asia Pacific regional meetings, Scientific Board member (2020-).

Econometric Society, elected member of the Australasian Standing Committee (2019-21).

Australian Research Council, member of the College of Experts (2018-2021)

Co-Editor: Review of Finance (2005-2009)

Ad-hoc Acting Editor: Journal of Finance

Ad-hoc Acting Editor: Proceedings of The National Academy of Sciences (PNAS)

Invited Issue Editor: Journal of Behavioral and Experimental Finance (2023)

Editorial Board Member: Scientific Reports (2023).

Associate Editor: Management Science (Finance; 2020-), Management Science (Behavioral Economics and Decision Analysis; 2019-2023), Review of Financial Studies (1994-7), Journal of Finance (2015-2017), Journal of Financial Markets (1997-), Journal of Financial Econometrics (2001-2012), Mathematical Finance (2002-5), Review of Finance (2003-5; 2009-), Annals of Finance (2004-2007), Foundations and Trends in Economic Theory (2006-), Journal of Neuroscience, Psychology and Economics (2009-11, 2018-), Algorithmic Finance (2010-),

Frontiers in Decision Neuroscience (2010-), Frontiers in Integrative Neuroscience (2018-2019), Critical Finance Review (2010-)

Referee: American Economic Review, American Economic Journal-Microeconomics, The American Journal of Psychiatry, Behavioral and Brain Sciences, Cerebral Cortex, Cognition, Current Biology, Econometrica, Economic Journal, Economics Letters, Economic Theory, European Economic Review, Finance, Frontiers in Behavioral Neuroscience, Frontiers in Decision Neuroscience, International Economic Review, Journal of The American Statistical Association, Journal of Business, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Economic Behavior and Organization, Journal of Economic Dynamics and Control, Journal of Empirical Finance, Journal of Experimental Psychology, Journal of Finance, Journal of Financial Economics, Journal of Financial and Quantitative Analysis, Journal of International Money and Finance, Journal of Money, Credit and Banking, Journal of Neuroscience, Psychology, and Economics, Journal of Political Economy, Management Science, Nature Neuroscience, Nature Computational Science, NeuroImage, Neuron, PLoS (Biology; Computational Biology; Neuroscience and Psychiatry), Philosophical Transactions B of the Royal Society (Biological Sciences), Proceedings of the National Academy of Sciences, Psychological Science, Rand Journal of Economics, Review of Economics and Statistics, Review of Economic Studies, Review of Financial Studies, Science, Science Advances, Scientific Reports, Utah Winter Finance Conferences, Western Finance Association, Miami Behavioral Finance Conferences.

Neuroeconomics Symposium, Co-Organizer (APESA, Singapore, February 2008)

Neuro-Finance Symposium, Co-Organizer (Zurich, Switzerland, July 2007)

European Neuroeconomics Association, Member of the Scientific Council (2009-)

European Finance Association, Director, Executive Committee, 2010-12

Economic Science Association, Officer (Section Head, Finance; 2004-2005)

American Finance Association, member of the 2002 & 2016 Nominating Committees

Financial Management Association, Member of the Doctoral Consortium mentoring advanced Ph.D. students (2015)

Member of Review Panels (Committees of Experts), European Research Council Advanced Grants (2008-9); National Science Foundation (2010-12).

Reviewer of Grant Applications: national (U.S., Australia, Canada, Switzerland, U.K, Belgium, France, Germany) and international (European Union) public and private (e.g., AXA) foundations, including the U.S. NSF and NIH

Member (Past and/or Present): American Finance Association, Association for Psychological Science, Econometric Society, Economic Science Association, European Finance Association, Society for Neuroeconomics, Society for Neuroscience, Society for the Promotion of Financial Studies, Western Finance Association

Asset Pricing Theory – Articles	1. "Common Nonstationary Components of Asset Prices," Journal of Economic Dynamics and Control 12 (1988), 347-364.
	2. "A General Equilibrium Model of Changing Risk Premia: Theory and Tests," with Richard C. Green, Review of Financial Studies 2 (1989), 467-493.
	3. "A Test of a General Equilibrium Stock Option Pricing Model," with Pierre Hillion, Mathematical Finance 3 (1993), 311-347.

4. "Transaction Prices When Insiders Trade Portfolios," Finance 14 (1993); Summary appeared in Journal of Finance 48 (1993), 1069-1070.

5. "Tax-Induced Intertemporal Restrictions on Security Returns," with Robert Dammon, Journal of Finance 49 (1994):,1347-1372.

6. "Asset Prices and Volume in a Beauty Contest," with Bruno Biais, Review of Economic Studies 65 (1998), 307-340; Summary appeared in Journal of Finance 49 (1994), reprinted in Advances in Financial Modeling, B. Biais and M. Pagano, eds., Oxford University Press, 2001.

7. "Speculative Behavior and the Functioning of Financial Markets: Discussion," (in Spanish), Moneda y Credito 200 (1995), 39-44.

8. "Expectations and Learning in Iowa," with Oleg Bondarenko, Journal of Banking and Finance 24 (2000), 1535-1555.

9. "An Exploration of Neo-Austrian Theory Applied To Financial Markets," with Harald Benink, Journal of Finance 54 (2001), 1011-1028.

10. "An Optimal IPO Mechanism," with Bruno Biais and Jean-Charles Rochet, Review of Economic Studies 69 (2002) 117-146.

11. "Filtering Returns for Unspecified Biases in Priors when Testing Asset Pricing Theory," Review of Economic Studies 70 (2003), 1-24.

12. "Asset Trading Volume in Infinite-Horizon Economies with Dynamically Complete Markets and Heterogeneous Agents: Comment," with William Zame, Finance Research Letters 3 (2006), 96-101.

13. "Prices and Allocations in Financial Markets: Theory, Econometrics, and Experiments," with Charles Plott and William Zame, Econometrica 75 (2007), 993-1038.

14. "Modeling Price Pressure in Financial Markets," with Elena Asparouhova, Journal of Economic Behavior and Organization 72 (2009), 119-130.

15. "Equilibrium Asset Pricing Under Heterogeneous Information," with Bruno Biais and Chester Spatt, Review of Financial Studies 23 (2010), 1503-43.

16. "Ambiguity in Asset Markets: Theory and Experiment," with Paolo Ghirardato, Serena Guarnaschelli and William Zame, Review of Financial Studies 23 (2010), 1325-59.

17. "Competition in Portfolio Management: Theory and Experiment," with Elena Asparouhova, Jernej Copic, Brad Cornell, Jaksa Cvitanic and Debrah Meloso, Management Science 61(2015), 1868-1888.

18. "Asset Pricing and Asymmetric Reasoning," with Elena Asparouhova, Jon Eguia and William Zame, Journal of Political Economy 123 (2015), 66-122.

19. "Costly Information Acquisition in Decentralized Markets: An Experiment," with Elena Asparouhova and Wenhao Yang, *Management Science*, 2024, https://doi.org/10.1287/mnsc.2023.4976 (Best paper award for Financial Markets & Institutions, 2017 Meetings of the Financial Management Association).

20. "Price Formation in Field Prediction Markets: the Wisdom in the Crowd," with Frederik Bossaerts, Nitin Yadav, Chad Nash, Torquil Todd, Torsten Rudolf, Rowena Hutchins, Anne-Louise Ponsonby and Karl Mattingly, *Journal of Financial Markets*, 68 (2024), 100881.

21. "Asset Pricing in a World of Imperfect Foresight," with Felix Fattinger and Wenhao Yang, *Management Science,* forthcoming.

Asset Pricing Theory – Books	1. The Paradox of Asset Pricing (Princeton: Princeton University Press, 2002; Paperback version appeared 2005; Asian version appeared 2007). 2. Lecture Notes in Corporate Finance, with Bernt Arne Ødegaard (Singapore: World Scientific Publishing, 2001; Second, Revised Edition 2007).

Asset Pricing Theory – Working Papers	1. "Has the Cross-Section of Average Returns Always Been The Same? Evidence from Germany, 1881-1913," with Caroline Fohlin, Caltech Social Science Working Paper 1084: 2000. 2. "Arbitrage-Based Pricing When Volatility is Stochastic," with Eric Ghysels and Christian Gouriéroux, October 1997. 3. "Price Formation in Continuous Double Auctions, with Implications for Asset Pricing," with Elena Asparouhova and John Ledyard, 2020 (presented at 2009 SAET Conference, Ischia, Italy). 4. "Voting to ensure existence and Pareto-optimality of insurance and loan markets," with Michèle Itten (2009) (SURF project Summer 2011). 5. "The Role of Financial Markets in the Unraveling of Credit," with Elena Asparouhova and Anh Tran, 2022 (presented at various conferences; Resubmitted to *Journal of Financial Economics*). 6. "Tracking the Tangency Portfolio with Alpha," with Wenhao Yang, Yang Chen, Nitin Yadav and Carsten Murawski, 2018 (prepared for submission). 7. "Modelling Asset Prices Under Heterogeneous Beliefs," with Ryan Anderson, 2020 (to be resubmitted). 8. "Information Structure and Aggregation: Theory and Experiments," with Ryan Anderson and Felix Fattinger, 2021. 9. "General Equilibrium Asset Pricing with Decreasing Returns to Scale: Theory and Experiments," with Sean Crockett, Xinan Fan, Felix Fattinger, Max Ruan, November 2025 (presented, among others, at the 2024 Annual Meetings of the Society for Experimental Finance). 10. "Gaussian Fundamentals, Heavy-Tailed Price Changes, and the Role of the Market Maker," with Abhi Anand, Harvey Huang, Max Hunt, Rob Woods and Nitin Yadav, October 2020 (presented at the First Conference on Zero- and Minimal- Intelligence Agents, *Yale University*, October 2020). 11. "Investments and asset pricing in a world of satisficing agents," with Tony Berrada and Giuseppe Ugazio (U Geneva Geneva Institute for Financial Research), 2024 (presented at various conferences, e.g., 2024 European Summer Meetings of the Econometric Society).

Experimental Finance – Articles	1. "Price Discovery in Financial Markets: The Case of the CAPM," with D. Kleiman, and C. Plott, in Charles R. Plott, Collected papers on the Foundations of Experimental Economics and Political Science: Information, Finance and General Equilibrium, vol. 3, Edwin Elgar Publishers, 2004. 2. "Experiments With Financial Markets: Implications For Asset Pricing Theory," The American Economist, Spring 2001. Reprint in Shifting Paradigms, New Directions in Economics, Cambridge, UK: Cambridge University Press (2004).

3. "The CAPM in Thin Experimental Financial Markets," with Charles Plott, Journal of Economic Dynamics and Control 26 (2002), 1093-1112.

4. "Inducing Liquidity in Thin Financial Markets Through Combined-Value Trading Mechanisms," with Leslie Fine and John Ledyard, European Economic Review 46 (2002), 1671-95.

5. "Excess Demand and Equilibration In Multi-Security Financial Markets: The Empirical Evidence," with Elena Asparouhova and Charles Plott, Journal of Financial Markets 6 (2003), 1-22.

6. "Basic Principles of Asset Pricing Theory: Evidence From Large-Scale Experimental Financial Markets," with C. Plott, Review of Finance 8 (2004), 135-169.

7. "Asset Pricing," in Handbook of Experimental Economics Results, Charles R. Plott and Vernon L. Smith, eds., Amsterdam: North-Holland (2008).

8. "From Market Jaws to the Newton Method: The Geometry of How a Market Can Solve Systems of Equations," with Charles R. Plott; in Handbook of Experimental Economics Results, Charles Plott and Vernon L. Smith, eds, Amsterdam: North-Holland (2008).

9. "Risk Aversion in Laboratory Asset Markets," with William Zame, in: Risk Aversion in Experiments, Ed. J. Cox and G. Harrison, Greenwich, CT: JAI Press, Research in Experimental Economics, (12), 2008.

10. "Promoting Intellectual Discovery: Patents vs. Markets," with Jernej Copic and Debrah Meloso, Science, 323 (2009), 1335-1339.

11. "The Experimental Study of Asset Pricing Theory," Foundations and Trends in Finance 3 (2009), 289-361.

12. "Excessive Volatility Is Also A Feature Of Individual Level Forecasts," with A. Nursimuli, Journal of Behavioral Finance 15 (2014), 16-29.

13. "The Speed of Information Revelation and Eventual Price Quality in Markets with Insiders," with Cary Frydman and John Ledyard, Review of Finance 18 (2014), 1-22.

14. "Lucas In The Laboratory," with Elena Asparouhova, Nilanjan Roy and William Zame, Journal of Finance 71 (2016) 2727-2780.

15. "Experiments on Percolation of Information in Dark Markets," with Elena Asparouhova, The Economic Journal 127 (2017) F518-F544.

16. "Perception of Intentionality in Investor Attitudes towards Financial Risks," with S. Suzuki and J. O'Doherty, Journal of Behavioral and Experimental Finance (2017) https://doi.org/10.1016/j.jbef.2017.12.011).

17. "Transferring Cognitive Talent Across Domains to Reduce the Disposition Effect in Investment," with Kristian Rotaru, Nitin Yadav and Petko Kalev, Scientific Reports 11 (2021), 1-9.

18. "Pairing Multi-Market Theory with Experiments," with Elena Asparouhova and Sean Crockett, *Handbook of Experimental Finance*, Edward Elgar (Northampton, MA, USA) (2022).

19. "Emotional Engagement and Trading Performance: Evidence from a Controlled Experiment," with Felix Fattinger, Kristian Rotaru and Katong Xu, *Management Science* (2023) https://doi.org/10.1287/mnsc.2023.4883.

20. "Humans in Charge of Algorithmic Trading: The First Experiment," with E. Asparouhova, T. Wang, N. Yadav and W. Yang, *Review of Finance* 28 (2024), 1215-44.

21. "Resource Allocation, Computational Complexity, and Market Design," with E. Bowman, Felix Fattinger, S. Huang, C. Murawski, A. Suthakar, S. Tang, N. Yadav, *Journal of Behavioral and Experimental Finance* 42 (2024), 100906.

22. "ETF indexing strategies and asset prices: Experimental evidence," with John Duffy, Jean Paul Rabanal, Olga Rud and Nitin Yadav, *Journal of Economic Behavior and Organization,* forthcoming.

Experimental Finance – Working Papers	1. "Prices and Allocations in Dynamically Complete Markets: Experimental Evidence," with Debrah Meloso and William Zame, 2013 (Caltech SURF project Summer 2011).
	2. "Is Academic Finance Really that Wrong?" 2017. Available at SSRN: https://ssrn.com/abstract=3122143 (Transcript of keynote speech at 24th CLSA Investors' Forum, Hong Kong)
	3. "Cognitive Biases in Group Investment Decision-Making: The Disposition Effect," with E. Wang (in preparation).
	4. "Perspective: Why Dissenting Views Gradually Become More Polarized," with Elena Asparouhova, Felix Fattinger and Wenhao Yang (to be resubmitted).
	5. "Arbitrage Opportunities: Anatomy and Remediation,'' with Jason Shachat and Kuangli Xie, 2024 (R&R for *Journal of Finance*).
	6. "Who Determines Market Prices? Challenging The Marginal Agent Paradigm," with Elena Asparouhova and John Ledyard, 2025 (submitted).
Decision Neuroscience– Articles	1. "Neural Differentiation of Expected Reward and Risk in Human Subcortical Structures," with Kerstin Preuschoff and Steve Quartz, Neuron 51 (2006), 381-390.
	2. "The Role of Ventromedial Prefrontal Cortex in Abstract State-Based Inference During Decision Making in Humans," with Alan Hampton and John O'Doherty, The Journal of Neuroscience 26 (2006), 8360-8367.
	3. "Adding Prediction Risk to the Theory of Reward Learning," with Kerstin Preuschoff, Annals of the New York Academy of Sciences 1104 (2007), 135-146.
	4. "Neural Antecedents of Financial Decisions," with B. Knutson, Journal of Neuroscience 27 (2007), 8174-8177.
	5. "Towards a Mechanistic Understanding of Human Decision Making: Contributions of Functional Neuroimaging," with J. O'Doherty, Current Directions in Psychological Science (Special Issue on The Interface Between Neuroscience and Psychological Science), 17 (2008).
	6. "Human Insula Activation Reflects Risk Predictions Errors As Well As Risk," with Kerstin Preuschoff and Steve Quartz, Journal of Neuroscience, 28 (2008), 2745-2752.
	7. "Markowitz in the Brain?" with Kerstin Preuschoff and Steve Quartz, Revue d' Economie Politique 2008, 75-96.
	8. "Investigating Signal Integration with Canonical Correlation Analysis of fMRI Brain Activation Data," with A. Bruguier, K. Preuschoff and S. Quartz, NeuroImage 41 (2008), 35-44.
	9. "Neural Correlates of Mentalizing-Related Computations During Strategic Interactions in Humans," with A. Hampton and J. O'Doherty, Proceedings of the National Academy of Sciences 105 (2008), 6741-6746.

10. "The Neurobiological Foundations of Valuation in Human Decision Making under Uncertainty," with Ming Hsu and K. Preuschoff, in: Neuroeconomics: Decision Making and the Brain, Ed. P.W. Glimcher, C.F. Camerer, E.Fehr, R.A. Poldrack, New York: Academic Press (2008).

11. "Neurobiological Studies of Risk Assessment: A Comparison of Expected Utility and Mean-Variance Approaches," with M. d'Acremont, Journal of Cognitive, Affective and Behavioral Neuroscience 8 (2008), 363-374.

12. "Explicit Neural Signals Reflecting Reward Uncertainty," with W. Schultz, K. Preuschoff, C. Camerer, M. Hsu, C.D. Fiorillo, and P. Tobler, Philosophical Transactions of the Royal Society B: Biological Sciences 363 (2008), 3801-3811.

13. "Predicting Risk in a Multiple Stimulus - Multiple Reward Environment," with Mathieu d'Acremont and Manfred Gilli, in: Reward And Decision Making, ed. J.C. Dreher and L. Tremblay, Academic Press (2009).

14. "Encoding of marginal utility across time in the human brain," with A. Pine, B. Seymour, J. Roiser, K. Friston, H.V. Curran and Ray Dolan, Journal of Neuroscience 29 (2009), 9575-9581.

15. "Decision Making in Financial Markets," in: Encyclopedia of Neuroscience, Eds. L. Squire, T. Albright, F. Bloom, F. Gage and N. Spitzer, Elsevier (2009).

16. "Neural Correlates of Value, Risk and Risk Aversion Contributing to Decision Making under Risk," with G. Christopoulos, P. Tobler, R. Dolan and W. Schultz, Journal of Neuroscience 29 (2009), 12574-83.

17. "What Decision Neuroscience Teaches Us About Financial Decision Making," Annual Review of Financial Economics 1 (2009), 383-404. Reprinted in: Biological Economics, Andrew W. Lo and Ruixun Zhang, eds., Edward Elgar, 2016.

18. "Exploring the Nature of Trading Intuition," with Antoine Bruguier and Steve Quartz, Journal of Finance, 65 (2010), 1703-23.

19. "Risk and Risk Prediction Error Signals in Anterior Insula," Brain Structure and Function 214 (2010) 645-653.

20. "A Behavioral and Neural Evaluation of Prospective Decision-Making under Risk," with Mkael Symmonds and Ray Dolan, Journal of Neuroscience 30 (2010), 14380-9.

21. "Risk, Unexpected Uncertainty, and Estimation Uncertainty: Bayesian Learning in Unstable Settings," with Elise Payzan, PLoS Computational Biology 7 (2011), e1001048.

22. "MAOA-L carriers are better at making optimal financial decisions under risk," with Cary Frydman, Antonio Rangel and Colin Camerer, Proceedings of The Royal Society B: Biological Sciences 278 (2011), 2053-2059.

23. "The Impact of Disappointment in Decision Making: Inter-Individual Differences and Electrical Neuroimaging," with Hélène Tzieropoulos, Rolando Grave de Peralta and Sara L. Gonzalez, Frontiers in Human Neuroscience 4 (2011), 1-19.

24. "Positive temporal dependence of the biological clock implies hyperbolic discounting," with Debajyoti Ray, Frontiers in Decision Neuroscience 5 (2011); Reprinted in: The Neurobiology of Choice, Daeyeol Lee, Paul Glimcher, Julia Trommershäuser. Frontiers Media SA (Frontiers Research Topic Ebook), 2012.

25. "The Affective Impact of Financial Skewness on Neural Activity and Choice," with C. Wu and B. Knutson, PLoS One 6 (2011), e16838.

26. "Differentiable Contributions of Human Amygdalar Subregions in the Computations Underlying Reward and Avoidance Learning," with C. Prévost, J.A. McCabe, R.K. Jessup and J. O'Doherty, European Journal of Neuroscience 2011 (34), 1-12 (featured article).

27. "The human prefrontal cortex mediates integration of potential causes behind observed outcomes," with Klaus Wunderlich, Ulrik Beierholm and John O'Doherty, Journal of Neurophysiology 106 (2011), 1558-1569.

28. "Separate Encoding of Intuition-Based and Reason-Based Subjective Valuations In The Human Brain," with Ulrik Beierholm, Cedric Anen and Steven Quartz, NeuroImage 2011 (58), 955-62.

29. "Hedging your bets by learning about reward correlations in the human brain," with Klaus Wunderlich, Mkael Symmunds and Ray Dolan, Neuron 2011 (71), 1141-52.

30. "Risk, Unexpected Uncertainty, and Estimation Uncertainty: Bayesian Learning in Unstable Settings," with Elise Payzan-LeNestour PLoS Computational Biology 7 (2011), e1001048.

31. "Do not Bet on The Unknown Versus Try To Find Out More: Estimation Uncertainty and 'Unexpected Uncertainty' Both Modulate Exploration." with Elise Payzan-LeNestour, Frontiers in Decision Neuroscience 6 (2012), 150.

32. "Neural Computations Supporting Cognition: Rumelhart Prize Symposium in Honor of Peter Dayan," with Kenji Doya, John O'Doherty, Alex Pouget, Nathaniel Daw, and Yael Niv. In *Proceedings of the Annual Meeting of the Cognitive Science Society* 2012 (Vol. 34, No. 34).

33. "Decision Making: How The Brain Weighs The Evidence," with M. d'Acremont, Current Biology 2012 (22), 1641-48 (Dispatch).

34. "Activity in inferior parietal and medial prefrontal cortex signals the accumulation of evidence in a probability learning task," with M. d'Acremont and E. Fornari, PLoS Computational Biology 2013.

35. "Evidence for model-based computations in the human amygdala during Pavlovian conditioning," with Charlotte Prévost, Dan McNamee, Ryan Jessup and John O'Doherty, PLoS Computational Biology 9 (2013), e1002895.

36. "The Neural Representation of Unexpected Uncertainty During Value-Based Decision Making," with Elise Payzan-LeNestour, Simon Dunne and John O'Doherty, Neuron 79 (2013), 191-201.

37. "In the Mind of the Market: Theory of Mind Biases Value Computation During Financial Bubbles," with Benedetto de Martino, John O'Doherty, Deb Ray and Colin Camerer, Neuron 19 (2013), 1222-1231.

38. "The Human Brain Encodes Event Frequencies While Forming Subjective Beliefs," with Mathieu d' Acremont and Wolfram Schultz, Journal of Neuroscience 33 (2013), 10887-10897.

39. "The Chronometry of Risk Processing in the Human Brain," with Mkael Symmonds, Rosalyn Moran, Nicholas Wright, Gareth Barnes, and Ray Dolan, Frontiers in Decision Neuroscience 7 (2013), 146.

40. "Using neural data to test a theory of investor behaviour: An application to realization utility," with Cary Frydman, Nick Barberis, Colin Camerer and Antonio Rangel, Journal of Finance 69 (2014), 907-46.

41. "Risk and Reward Preferences Under Time Pressure," with A. Nursimulu, Review of Finance 18 (2014), 999-1022.

42. "Experienced chimpanzees behave more game-theoretically than humans in simple competitive interactions," with Christopher Flynn Martin, Rahul Bhui, Tetsuro Matsuzawa and Colin Camerer, Nature Scientific Reports 4 (5 June 2014): 5182.

43. "Learning About Unstable, Publicly Unobservable Payoffs," with Elise Payzan-LeNestour, Review of Financial Studies 28 (2015), 1874-1913.

44. "Value-based choices reveal probability distortion in macaque monkeys," with William Stauffer, Armin Lak, and Wolfram Schultz, Journal of Neuroscience 35 (2015), 3146-3154.

45. "Neural mechanisms underlying human consensus decision-making," with Shinsuke Suzuki, Ryo Adachi, Simon Dunne, and John O'Doherty, Neuron 86 (2015), 591-602.

46. "From Behavioral Economics To Neuroeconomics To Decision Neuroscience: The Ascent of Biology in Research on Human Decision Making," with Carsten Murawski, Current Opinion in Behavioral Sciences 5 (2015), 37-42.

47. "Modeling the evolution of beliefs using an attentional focus mechanism," with Dimitrije Markovic, Jan Gläscher, John O'Doherty and Stefan J. Kiebel, PLoS Computational Biology 11.10 (2015): e1004558.

48. "Human reaction to leptokurtic noise and its neurobiological foundations," with Mathieu d'Acremont, Cerebral Cortex 26 (2016), 1818-30.

49. "Social contagion during learning about others' risk preferences is associated with modulation of the neural perception of risk but not expected value," with Shinsuke Suzuki, Emily Jensen, and John O'Doherty, Proceedings of The National Academy of Sciences 113 (2016), 3755-60.

50. "Neural computations underlying inverse reinforcement learning in the human brain," with Sven Collette, Wolfram Pauli and John O'Doherty, eLife 6 (2017).

51. "Formalizing the role of the anterior insula in rapid adaptation," Frontiers in Integrative Neuroscience (2018) doi: 10.3389/fnint.2018.0061.

52. "Separating probability and reversal learning in a novel Probabilistic Reversal Learning task for mice," with J.A. Metha, M. Brian, S. Oberrauch, S.A. Barnes, T. Featherby, C. Murawski, D. Hoyer, L.H. Jacobson, Frontiers in Behavioral Neuroscience (2019), doi: 10.3389/fnbeh.2019.00270.

53. "How Neurobiology Elucidates the Role of Emotions in Financial Decision-Making," *Frontiers in Decision Neuroscience*, Special issue on *Emotions and Financial Decision-Making,* 12: 697375.

54. "Epilepsy and ecstatic experiences: the role of the insula," with F. Picard and F. Bartolomei, *Brain Sciences*, 11 (2021), 1384.

55. "Not so smart? 'Smart' drugs increase the level but decrease the quality of cognitive effort," with E. Bowman, D. Coghill and C. Murawski, *Science Advances* (9) 2023, DOI: 10.1126/sciadv.add4165.

56. "The neural dynamics associated with computational complexity," with Pablo Franco and Carsten Murawski, PLOS *Computational Biology*, 20 (9), 2024, e1012447.

57. "Estimating self-performance when making complex decisions," with Xiaping Lu, Carsten Murawski and Shinsuke Suzuki, *Scientific Reports*, 15(1), 2025, 3203.

58. "Neuroeconomics: A Review," with Wolfram Schultz, *Annual Reviews in Economics*, in print.

Decision Neuroscience–Working Papers

1. "Surveying the Use of Pharmaceutical Cognitive Enhancers in the Australian Financial Services Industry," with E. Bowman, B. Feng and C. Murawski, 2020 (SSRN: 3661966).

2. "Statistical Efficiency in Reinforcement Learning," with Shijei Huang, Shinsuke Suzuki and Nitin Yadav (to be resubmitted; presented at various conferences, e.g., keynote lecture at the 13th Annual Meetings of the Society for Financial Econometrics, San Diego, 2021).
3. "Judgment and decision-making under uncertainty," mimeo (2021).
4. "Modeling Behavior When Inference Is Complex," with Luis Rayo, 2024.
5. Decision-Making when Computational Complexity Causes Uncertainty, based on keynote lecture at the Summer School on Cognitive Foundations of Decision Making (Rabat, Morocco, 2024); solicited by *Economic and Behavioral Sciences.*
6. "How humans solve computationally complex resource procurement problems: The example of food choice," with Fabian Grabenhorst and Wolfram Schultz, 2024 (work in progress).
7. "Stereoelectroencephalography (SEEG) Recording and Stimulation of Anterior Insula in an Instrumental Task with Frequent Outliers," with Fabienne Picard and Nina Sooter, 2024 (work in progress).
8. "Robust Adaptive Expectations," with Te Bao and Jiaoying Pei, SSRN working paper 5487706, 2025.

Computer Science – Articles

1. "How Humans Solve Complex Problems: The Case of The Knapsack Problem," with Carsten Murawski, Scientific Reports (2016), 6:34851.
2. "Computational Complexity and Human Decision-Making," with Carsten Murawski, Trends in Cognitive Sciences 21 (2017), 917-29.
3. "Uncertainty and Computational Complexity," with Nitin Yadav and Carsten Murawski, Philosophical Transactions of the Royal Society B 374 (2019): 20180138.
4. "Is hardness inherent in computational problems? Performance of human and digital computers on random instances of the 0-1 knapsack problem," Proceedings of the 24th European Conference on Artificial Intelligence (ECAI) 2020.
5. "Exploiting Distributional Temporal Difference Learning to Deal with Tail Risk," with Harvey Huang and Nitin Yadav, *Risks* 8 (2020): doi:10.3390/risks8040000.
6. "Generic properties of a computational task predict human effort and performance," with Juan Pablo Franco, Nitin Yadav and Carsten Murawski, *Journal of Mathematical Psychology* 104 (2021):102592.
7. "Task-Independent Metrics of Computational Hardness Predict Human Cognitive Performance," with Juan Pablo Franco, Karlo Doroc, Nitin Yadav and Carsten Murawski, *Scientific Reports* 12 (2022):12914.

Computer Science – Working Papers

1. "How Well Can Humans Approximate Optimality in Computationally Hard Problems?" with Nitin Yadav, Anthony Hsu, Juan Pablo Franco and Carsten Murawski, 2024, under review.
2. "Complexity Benefits Recall of Reward-Relevant Attributes," with Andreas Kapounek and Lee de-Wit, 2025 (submitted).
3. "A Continuous Combinatorial Financial Exchange: Design, Simulations and Live Testing," with Rob Woods, John Ledyard, Malick Sy and Nitin Yadav, 2024.

Financial Econometrics & Empirical Finance – Articles

1. "Market Microstructure Effects of Government Intervention in the Foreign Exchange Market," with Pierrre Hillion, Review of Financial Studies 4 (1991), 513-541.
2. "The Econometrics of Learning in Financial Markets," Econometric Theory 11 (1995), 151-189.
3. "Testing the Mean Variance Efficiency of Well-Diversified Portfolios in Very Large Cross-Sections," with Pierre Hillion, Annales d'Economie et Statistique 40 (1995), 93-124.
4. "A New Method for Volatility Estimation with Applications in Foreign Exchange Rate Series," with Wolfgang Härdle and Christian Hafner, in Finanzmarktanalyse und -prognose

mit innovativen quantitativen Verfahren, G. Bol, G. Nakhaeizadeh and K.-H. Vollmer, eds., 71-84, Physica Verlag, 1996.

5. "Exchange Rates Have Surprising Volatility," with Christian Hafner and Wolfgang Härdle, in Time Series Analysis, in memory of Ted Hannan, P.M. Robinson and M. Rosenblatt, eds., 2:55-72, Springer Verlag, 1996.

6. "Martingale-Based Hedge Error Control," with Bas Werker, in Numerical Methods in Financial Mathematics, C. Rogers and D. Talay, eds., Cambridge University Press, 1996.

7. "Local Parametric Analysis of Hedging in Discrete Time," with Pierre Hillion, Journal of Econometrics 81 (1997), 243-272.

8. "Implementing Statistical Criteria to Select Return Forecasting Models: What Do We Learn?" with Pierre Hillion, Review of Financial Studies 12 (1999), 405-428.

9. "IPO Post-Issue Markets: Questionable Predilections But Diligent Learners?" with Pierre Hillion, Review of Economics and Statistics 83 (2001), 1-15.

10. "Local Parametric Analysis of Derivatives Pricing," with Pierre Hillion, Journal of Financial Markets 6 (2003), 573-605

Financial Econometrics & Empirical Finance – Working Papers	1. "A Theorem On (Certain Kinds Of) Out-of-Sample Prediction Tests in Finance," 1996.

1. "A Theorem On (Certain Kinds Of) Out-of-Sample Prediction Tests in Finance," 1996.

2. "On the Power of the Gibbons-Ross-Shanken Test of Optimality of a Portfolio," with Debrah Meloso, 2009.

3. "MDL-Based Variable Lookback Algorithm and Application To Finance," with Lionel Coulot and Martin Vetterli, 2015.

4. "Viral but Vanishing: Investment Advisors, Social Media, and Regulation" with Nazanin Babolmorad and Nadia Massoud, 2024 (Submitted).

Development of Instruments

1. jMarkets 1.0 (2005), 1.5 (2006), 2.0 (2008): Scientific project supervisor; jMarkets is a pure-Java, J2EE-compliant open-source software tool to run large-scale internet-based experiments with multiple interconnected markets (source and binary code published at http://jmarkets.ssel.caltech.edu); joint with Walter Yuan, Raj Advani and William Zame.

2. U.S. Patents 7,853,514 (Issued: 12/14/2010) and 8,386,370 (Issued: 2/26/2013): Method and Apparatus For Providing A Market Environment, with Walter Yuan and Raj Advani.

3. Flex-E-Markets (2007-): Scientific project supervisor; "software-on-demand" tool for flexible and easy deployment of internet-based double-sided markets; Software as a Service; recipient of a Caltech Grubstake development grant; www.flexemarkets.com

4. DG (2014-): Software suite for standalone, online and phone-based games in behavioral finance and neuroeconomics using the Unity platform (uleef.business.utah.edu/games/)

5. FMClient/Algohost (2017-): Python Client and Server Software for Algorithmic Traders interfacing with Flex-E-Markets, used in teaching and research (http://algohost.bmmlab.org/)

6. COEX (2020-): Continuous Combinatorial Open-Book Multi-Asset Exchange (https://coex.bmmlab.org/).

PhD Advisees
and Postdocs

- Past PhD students (first appointments in parentheses):
  - Economics & Finance: Kaoru Kato (McKinsey), Oleg Bondarenko (University of Illinois), Serena Guarnaschelli (McKinsey), Elena Asparouhova (University of Utah), Debrah Meloso (Bocconi University), Ming Hsu (UC Berkeley), Nilanjan Roy (City University of Hong Kong), Cary Frydman (USC), Wenhao Yang (University of Southern Carolina), Ryan Anderson (HEC, Paris)
  - Decision Neuroscience: Kerstin Preuschoff (EPFL), Ulrik Beierholm (University of Birmingham), Antoine Bruguier (Google), Alan Hampton (McKinsey), Klaus Wunderlich (Ludwig Maximilians Universitaet Munich), Elise Payzan (University of New South Wales), Anjali Nursimulu (EPFL), Yutaka Kayaba (University of Tokyo), Juan Pablo Franco (University of Melbourne), Xiaping Lu (TBD)
  - Finance & Computer Science: Harvey (Shijei) Huang (National Australia Bank)

- Past Postdocs (some co-mentored; first subsequent appointment in parentheses):
  - Decision Neuroscience: Kerstin Preuschoff (University of Geneva), Ulrik Beierholm (University of Birmingham), Mathieu d'Acremont (Northwestern University), Charlotte Prévost (Columbia University), Yutaka Kayaba (University of Tokyo)
  - Finance: Nitin Yadav (University of Melbourne), Felix Fattinger (Vienna University of Economics and Business), Jason Schoeters (University of Firenze and DISIA 'Giuseppe Parenti')

November 13, 2025