

# Xin Guo

Coleman Fung Chair Professor  
Department of Industrial Engineering and Operations Research  
University of California  
Berkeley, CA 94720-1777  
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**Education** RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY. Ph. D. (Math.) 1995–1999  
Dissertation: *Inside Information and Stock Fluctuations* Advisor: Prof. Lawrence Shepp

GRADUATE SCHOOL OF ACADEMIA SINICA. P. R. CHINA. M. S. (Math.) 1992–1995

UNIVERSITY OF SCIENCE AND TECHNOLOGY, P. R. CHINA. B. S. (Math.) 1987–1992

**Research interests** Stochastic control and games, applied probability

**Experience** UNIVERSITY OF CALIFORNIA, BERKELEY, CA. 2014–  
Professor Department of IEOR

UNIVERSITY OF CALIFORNIA, BERKELEY, CA. 2008–2013  
Associate professor (with tenure), Department of IEOR

UNIVERSITY OF CALIFORNIA, BERKELEY, CA. 2006–2007  
Assistant professor, Department of IEOR

CORNELL UNIVERSITY, ITHACA, NY. 2007–2008  
Associate professor (with tenure), School of ORIE

CORNELL UNIVERSITY, ITHACA, NY. 2003–2006  
Assistant professor, School of ORIE

IBM T. J. WATSON RESEARCH CENTER, YORKTOWN, NY. 2000–2003  
Research staff member, Mathematical sciences division

IBM T. J. WATSON RESEARCH CENTER, YORKTOWN, NY. 1999–2000  
Herman Goldstine postdoctoral fellow, Mathematical sciences division

**Invited academic visits**

DEPARTMENT OF MATHEMATICS, U. OF TECHNOLOGY, SYDNEY. July 2014

DEPARTMENT OF MATHEMATICS, HUMBOLDT U. AT BERLIN, GERMANY. July 2007

DEPARTMENT OF MATHEMATICS, KING'S COLLEGE AT LONDON, UK. May 2006

DEPARTMENT OF MATHEMATICS, U. TEXAS AT AUSTIN.	January 2006
ISAAC NEWTON INSTITUTE OF MATHEMATICS, CAMBRIDGE, UK.	June–July 2005
SHANGHAI STOCK EXCHANGE, P. R. CHINA.	June–July 2005
LAB. DE PROBABILITS ET MODLES ALATOIRES, PARIS VI. FRANCE	January 2004
SE&EM, CHINESE UNIVERSITY OF HONG KONG.	April 2002
DEPARTMENT OF MATHEMATICS, CITY UNIVERSITY OF HONG KONG.	March 2002

**Book**

X. Guo, T. L. Lai, H. Shek, and S. Wong. *Quantitative Trading: Algorithms, Analytics, Data, Models, Optimization*, Chapman and Hall, 2016.

**Journal publications**

34. X. Guo, and C. Pan. “Ito’s calculus in a sublinear expectation space via regularity of PDEs and rough path.” *Stochastic Processes and their Applications*, 2017, DOI: 10.1016/j.spa.2017.08.008.
33. X. Guo, C. Pan, and S. G. Peng. “Martingale problem under non linear expectations”, *Mathematics and Financial Economics*, 2017.
32. X. Guo, A. de Larrard, and Z. Ruan. “Optimal placement in a limit order book, an analytical approach.” *Mathematics and Financial Economics*, 2016.
31. X. Guo and M. Zervos. “Optimal execution with multiplicative price impact.” *SIAM Journal on Financial Mathematics*, 6(1), 281–306, 2015.
30. X. Guo, R. A. Jarrow, and A. de Larrard. “Economic default time and the arcsine law.” *Journal of Financial Engineering*, 2014.
29. X. Guo. “Optimal placement in a limit order book.” *TUTORIALS in Operations Research, INFORMS*, 2013.
28. Y-S. A. Chen and X. Guo. “Impulse control of multidimensional jump diffusions in finite time horizon.” *SIAM Journal on Control and Optimization*, 51(3):2638–2663, 2013.
27. I. O. Filiz, X. Guo, J. Morton, and B. Sturmfels. “Graphical models for correlated defaults.” *Mathematical Finance*, 22(4), 621–644, 2012.
26. X. Guo, P. Kaminsky, P. Tomecek, and M. Yuen. “Optimal spot market inventory strategies in the presence of cost and price risk.” *Mathematical Methods of Operations Research*, 73:109–137, 2011.
25. X. Guo and M. Zervos. “Pi options.” *Stochastic Processes and Their Applications*, 120:1033–1059, 2010.
24. M. A. Davis, X. Guo, and G. L. Wu. “Impulse controls for multi-dimensional jump diffusions.” *SIAM Journal on Control and Optimization*, 48(8):5276–5293, 2010.
23. X. Guo and G. L. Wu. “Smooth fit principle for impulse control of multi-dimensional diffusion processes.” *SIAM Journal on Control and Optimization*, 48(2):594–617, 2009.
22. X. Guo, R. Jarrow, and Y. Zeng. “Credit risk models with incomplete information,” (earlier version (2005) with the title “Information reduction in credit risk models”), *Mathematics of Operations Research*, 34(2):320–332, 2009.

21. X. Guo, R. Jarrow, and Y. Zeng. "Modeling the recovery rate in a reduced form model," *Mathematical Finance*, 19(1):73–97, 2009.
20. X. Guo and P. Tomecek. "A class of singular control problems and the smooth fit principle," *SIAM Journal on Control and Optimization*, 47(6), 3076–3099, 2009.
19. X. Guo, H. Z. Lin, and R. Jarrow. "Distressed debt prices and recovery rate estimation," *Review of Derivative Research*, 11(3):171–204, 2008
18. X. Guo and P. Tomecek. "Connections between singular control and optimal switching," *SIAM Journal on Control and Optimization*, 47(1), 421–443, 2008.
17. X. Guo and Y. Zeng. "Intensity process and compensator: A new filtration expansion approach and the Jeulin–Yor theorem," *Annals of Applied Probability*, 18(1), 120–142, 2008.
16. X. Guo and G. Yin. "The Wonham filter with random parameters: Rate of convergence and error bounds," *IEEE Transactions on Automatic Control*, 51(3):460–464, 2006.
15. X. Guo and Q. Zhang. "Optimal selling rules in a regime switching model," *IEEE Transactions on Automatic Control*, 50(9):1450–1455, 2005.
14. X. Guo and J. Liu. "Stopping at the maximum of geometric Brownian motion when signals are received," *Journal of Applied Probability*, 42(3):826–838, 2005.
13. X. Guo, J. J. Miao, and E. Morellec. "Irreversible investment with regime shifts," *Journal of Economic Theory*, 122(1):37–59, 2005.
12. A. Banerjee, X. Guo, and H. Wang "On the optimality of conditional expectation as a Bregman predictor," *IEEE Transactions on Information Theory*, 51(7):2664–2669, 2005.
11. X. Guo and H. Pham. "Optimal partially reversible investment with entry decision and general production function," *Stochastic Processes and Their Applications*, 115(5):705–736, 2005.
10. X. Guo, J. Liu, and X. Y. Zhou. "A constrained non-linear regular-singular stochastic control problem, with applications," *Stochastic Processes and Their Applications*, 109(2):167–187, 2004.
9. X. Guo and Q. Zhang. "Closed-form solutions for perpetual American put options with regime switching," *SIAM Journal on Applied Mathematics*, 64(6):2034–2049, 2004.
8. X. Guo. "Option pricings in an incomplete market with regime switching," *Proc. of the Steklov Institute of Mathematics*, (237), 192–202, 2002.
7. X. Guo. "Some risk management problems for firms with internal competition and debt," *Journal of Applied Probability*, 39(1):55–69, 2002.
6. X. Guo. "An optimal strategy for sellers in an online auction," *ACM Transactions on Internet Technology*, 2(1):1–13, 2002.
5. X. Guo. "When the 'bull' meets the 'bear'—A first passage time problem for a hidden Markov process," *Methodology and Computation in Applied Probability*, 3(2):135–143, 2001.
4. X. Guo and L. Shepp. "Some optimal stopping problems with non-trivial boundaries for pricing exotic options," *Journal of Applied Probability*, 38(3):647–658, 2001.
3. X. Guo. "An explicit solution to an optimal stopping problem with regime switching," *Journal of Applied Probability*, 38(2):464–481, 2001.

2. X. Guo. “Information and option pricings,” *Quantitative Finance*, 1:38–44, 2001.

1. X. Guo. “Cesàro summability of Fourier series under the critical index on unitary groups,” *Chinese Annals of Mathematics*, 15A(4):386–395, 1994. Also in *Chinese Journal of Contemporary Mathematics*, 15(3):215–226, 1994.

#### Refereed proceedings

40. X. Guo and P. Tomecek. “Connecting singular controls with optimal switching”, CDC 2008.

39. X. Guo and P. Tomecek. “Solving singular control from optimal switching”, Special issue for Asia-Pacific Financial Market 2008.

38. A. Banerjee, X. Guo, and H. Wang. “Optimal Bregman prediction and Jensen’s equality,” *Proc. IEEE International Symposium on Information Theory (ISIT)*, 168, 2004.

37. X. Guo. “A regime switching model: Statistical estimation, empirical evidence, and change point detection,” *Proc. SIAM-AMS-IMA Research Conference in Mathematical Finance*, 139–153, 2004.

36. X. Guo, Y. Lu, and M. S. Squillante. “Optimal probabilistic routing in distributed parallel queues,” *SIGMETRICS Performance Evaluation Review*, 32(2):53–54, 2004.

35. Q. Yu, S. Gong, and X. Guo. “Schwarzian derivative of holomorphic mappings,” *Singularities and complex geometry* (Q. Lu, S. S. T. Yau, and A. Libgober, eds.), *AMS/IP Studies in Advanced Mathematics*, 5:317–323, 1997.

#### Book Chapters

43. A. Chakrabarty and X. Guo. “Optimal stopping times with different information levels and with time uncertainty.” Chapter two in “Stochastic Analysis and its Application to Mathematical Finance,” 19–38, World Scientific Publishers, 2011.

42. X. Guo. “Some lookback option pricing problems,” Chapter in *Recent Developments in Mathematical Finance* (J. Young, ed.), 39–48, World Scientific Publishers, 2002.

41. X. Guo and L. Shepp. “Option pricing in a world with arbitrage,” Chapter in *Stochastic Optimization: Algorithms and Applications* (S. Ursayev and M. Pardalos, eds.), 87–96, Kluwer Academic Publishers, 2000.

#### Submitted/Preprints

54. X. Guo, J. Hong, N. Yang. “Ambiguity set and DRSO via Bregman.” Working paper, 2018.

53. M. Basei, H. Y. Cao and X. Guo. “Impulse Games and MFGs.” Working paper, 2018.

52. X. Guo and J. S. Lee. “Optimal partially reversible investment with mean field games.” Working paper, 2018.

51. X. Guo and R. Y. Xu. “Pareto optimality and price of anarchy for stochastic games.” Working paper, 2018.

50. X. Guo, W. P. Tang, and R. Y. Xu. “A class of stochastic games and moving free boundary problems.” Submitted, 2018.

49. X. Guo, T. He, and D. Lin. “Sparsemax and relaxed Wasserstein for topic sparsity.” Submitted, 2018.

48. X. Guo, A. R. Hu, R. Y. Xu, and J. Z. Zhang. “Consistency and computation of regularized MLEs for MHPs.” Submitted, 2018.
47. X. Guo, J. Hong, D. Lin, and N. Yang. “Relaxed Wasserstein with applications to GANs.” Submitted, 2017.
46. X. Guo and J. S. Lee. “Mean field games with singular controls.” Submitted, 2017.
45. X. Guo, Z. Ruan, and L. J. Zhu. “Dynamics of order positions and related queues in a limit order book.” Submitted, 2017.
44. X. Guo and R. Y. Xu. “Stochastic games for the fuel follower problem, N vs MFG.” Revised for SICON, 2018.

## Fundings/Grants

Research gift from Eunke 2018	
Research Gift from Burning Rock Bio Inc. 2018	
Co-PI, CLTC Cybersecurity	2017-2018
Co-PI, TBSI	2015-2020
Faculty Advisor for PhD Dissertation Fellowship, “Statistical Analysis of Limit Order Book,” NASDAQ OMX Education Group	2012-2013
PI, “Some Mathematical Topics on the Risk Management of the Financial Market,” NSF DMS	2010-2013
PI, “New Mathematical Methodology in Stochastic Control Problems with Applications to Risk Management,” UC Berkeley Coleman Fung Risk Management Center	2007-2009
PI, UC Berkeley Junior Faculty Grant	2006-2007
PI, “Credit Risk with Incomplete Information,” NSF DMI	2006-2009
PI, “Decisions under Uncertainty: Prediction, Robustness and Optimization,” Young Investigator Award, NSA	2004-2006

<b>Awards</b>	Chancellor’s Research Award, UC at Berkeley,	2008
	Sonny Yau ’72 excellence in teaching award, College of Engineering, Cornell U.	2006
	First plateau patent application award, IBM	2002

First patent application invention achievement award, IBM	2000
Herman Goldstine postdoctoral fellowship, IBM	1999–2000

### Plenary/Keynote talks

Workshop on Blockchain for Postdoctoral Associations of Tsinghua U., Macau (November 2018)  
 10th World Congress of Bachelier Finance Society, Dublin, Ireland. (July 2018)  
 METE - Mathematics and Economics: Trends and Explorations, ETHZ. Switzerland. (June 2018)  
 AMAMeF Conference, Amsterdam, Netherland. (June 2017)  
 Seventh Workshop on High Frequency Tradings. NJ. (November 2016)  
 The Quantitative Methods in Finance 2015 Conference. Sydney, Australia (December 2015)  
 Third Asian Quantitative Finance Conference. Hong Kong, China. (July 2015)  
 Workshop on Mathematical Finance and PDEs, Rutgers U., NJ. (November 2013)  
 IMS-FPS 2013, National U. of Singapore, Singapore. (June 2013)  
 SIAM Conference on Financial Mathematics and Engineering, Minneapolis, MN. (July 2012)  
 Workshop on Stochastic Analysis and its Application to Mathematical Finance, Beijing, P. R. China. (July 2011)

### Other invited talks

Workshop on Mean Field Games, Vietnam (May 2019)  
 Workshop on Mean Field Games, Edinburgh (April 2019)

Department Colloq. U. of Texas at Austin (October 2018)  
 IMS-FIPS 2018, London, UK. (September 2018)  
 Princeton-Rutgers Mathematical Finance Day. NJ. (April 2018)  
 Workshop on Mathematics of Behavioral Economics and Knightian Uncertainty in Financial Markets. Bielefeld, Germany. (May 2018)  
 Financial Math. Seminar, UC Santa-Barbara. (April 2018)  
 Financial Math. Seminar, Shanghai Jiaotong U. Shanghai, P.R. China. (March 2018)

IPAM FMRC2017, Lake Arrowhead, CA. (December 2017)  
 Midwest Probability Colloquium, Northwestern U. (October 2017)  
 Seminar at the Center for Financial and Risk Analytics, Stanford U., CA (May 2017)  
 National Conference for Women in Financial Mathematics. IPAM, CA. (April 2017)  
 WCMF, Seattle, WA. (March 2017)  
 IEOR Colloq. UC Berkeley, CA. (March 2017)

UIUC IESE Department Colloquium. IL. (September 2016)  
 Closing Conference on Robust Finance and Beyond. ZIF, Bielefeld, Germany (June 2016)  
 Workshop on the Optimization of Flow of Dividends. Paris, France (May 2016)

HKU-CUHK-HKUST-Stanford Conference in Quantitative Finance. Hong Kong, China. (December 2015)  
 Public Lecture on Financial Engineering. Xiamen University, China. (December 2015)

Workshop on Big Data. Paris, France. (November 2015)  
Sixth Workshop on High Frequency Tradings. NJ. (October 2015)  
International Workshop on Advanced Methods in Mathematical Finance. Angers, France (September 2015)  
Columbia Workshop on Systemic Risk. New York, NY. (May 2015)  
Workshop on Robust and Finance. ZIF, Bielefeld, Germany (May 2015)  
IPAM Workshop on the Mathematics of High Frequency Financial Markets. LA, CA. (April 2015)  
Financial Mathematics Seminar, USC. LA, CA. (April 2015)  
Risk Seminar, UC at Berkeley, CA. (January 2015)

Invited lecture on high frequency trading, University of Technology, Sydney, Australia. (July 2014)  
Seventh International Symposium on Backward Stochastic Differential Equations, Weihai, China. (June 2014)  
Financial Math. Seminar, U. of Minnesota, MN. (April 2014)

INFORMS Annual Meeting, Minneapolis, MN. (Tutorial, November 2013)  
5th Annual Conference on Modeling High-Frequency Data in Finance, Stevens Institute, NJ. (October 2013)  
Applied Math. Seminar, Johns Hopkins U., MD. (September, 2013)  
Workshop on Stochastic and Real World Models, Bielefeld, Germany. (July, 2013)  
The Second Pacific Rim Mathematical Association Congress (PRIMA), Shanghai, P. R. China. (June 2013)  
Workshop on Nonlinear Expectations, Stochastic Calculus under Knightian Uncertainty, and Related Topics, Singapore. (June 2013)  
Financial Math. Seminar, Stanford U., CA. (April 2013)  
Math. Finance Seminar, U. of Pittsburgh, PA. (April 2013)  
Bachelier Seminar, Paris, France. (March 2013)  
Math. Finance Seminar, U. of Evry, Paris, France. (March 2013)  
Probability Seminar, INRIA, Paris, France. (March 2013)

International Workshop on Games, Model Uncertainty and Related Fields, Shandong U., P. R. China. (November 2012)  
Tutorial and summer course, USTC, P. R. China (June 2012)  
Hong Kong Consortium of Quantitative Finance, HK, P. R. China. (May 2012)  
Risk Seminar, Columbia U., NY. (April 2012)  
Financial Math. Seminar, Stanford U., CA. (February 2012)

International Workshop on Finance, Kyoto, Japan. (August 2011)  
ICIAM, Vancouver, Canada (July 2011)  
Workshop on Imaging, Communications and Finance: Stochastic Modeling of Real-World Problems, New York, NY (June 2011)  
4th Western Conference on Mathematical Finance, USC, CA. (June 2011)  
Math. Colloquium, Florida State U., FL. (March 2011)  
Seminar on Computational Mathematics, Hong Kong U., HK. P. R. China. (February 2011)

CREST and Sakigake International Symposium on Asymptotic Statistics, Risk and Computation in Finance and Insurance, Tokyo, Japan. (December 2010)  
SIAM on Financial Mathematics, San Francisco, CA. (November 2010)  
Computational Algebra Seminar, UC Berkeley, CA. (November 2010)  
IEOR Colloquium, UC Berkeley, CA. (November 2010)

Financial Math. Seminar, Dept of Prob. and Stat. UC Santa Barbara (April 2009)

Math. Finance Seminar, Math. Dept. U. of Michigan. (March 2009)  
Math Colloq. Math. Dept. UC at Berkeley (Feb 2009)  
Math Finance Seminar, Math. Dept. U. Southern California (Feb. 2009)  
AMS Annual Meeting, Washington D.C. (Jan 2009)

CDC 2008, Cancun, Mexico (Dec 2008)  
SIAM-FM08, New Brunswick, New Jersey (Nov 2008)  
Probability Seminar, Math. Dept. UC at Davis (Nov 2008)  
WCMF Financial Workshop, Texas, Austin (Nov 2008)  
Probability Seminar, Stat. Dept. Stanford U. (October 2008)  
Openlink User Conference, Whistler, Canada. (March, 2008)  
Workshop on Financial Engineering, Kyoto, Japan. (March, 2008)  
AMS Annual Meeting, San Diego. (January 2008)

Applied Math. Colloquium, Cornell U. (September 2007)  
Workshop on Financial Mathematics, Edinburgh, UK. (July 2007)  
Probability Seminar, Humboldt University at Berlin, Germany. (July 2007)  
Seminar on Optimization and Finance, University of Ulm, Germany. (June 2007)  
Financial Math. Seminar, Technical University of Kaiserslautern, Germany. (June 2007)  
OR Seminar, MSE Dept. Stanford U. (May 2007)  
Neyman Seminar, Stat. Dept. UC at Berkeley. (April 2007)  
Stanford-Tsukuba/WCQF workshop, Stanford U. (March 2007)  
Financial Math. Seminar, Math. Dept. NCSU at Raleigh. (March 2007)  
Workshop on Recent Development of Financial and Insurance Mathematics and its Interplay with Industry, MFO, Oberwolfach, Germany. (Feb 2007)

Probability Seminar, Stat. Dept. UC at Berkeley. (October 2006)  
SIAM Annual Conference, Boston. (July 2006)  
International Conference on Mathematical Finance, Guilin, China. (May 2006)  
Colloquium, Inst. of Applied Math., Academic Sinica, Beijing, China. (May 2006)  
Finance Seminar, Cambridge U. Cambridge, UK. (May 2006)  
Math. Finance Seminar, King's College, London, UK. (May 2006)  
Statistics Seminar, Stern Business School, NYU. (May 2006)  
CCCP Workshop on Financial Engineering, New York. (April 2006)  
International Conference on Financial Engineering, Gainesville. (March 2006)  
IEOR Seminar, UC at Berkeley. (January 2006)  
Mathematical Finance Seminar, Dept of Math. U. Texas at Austin. (January 2006)

Risk Seminar, Columbia U. (December 2005)  
Tutorials, Shanghai Stock Exchange, Shanghai, China. (June 2005)  
Workshop on Credit Risk, Newton Inst. of Math. Sciences, Cambridge, UK. (June 2005)  
Mathematics Seminar, King's College, London, UK. (May 2005) Mathematical Finance Seminar, U. Texas at Austin. (April 2005)  
Workshop on Mathematical Finance, CMU. (February 2005)

Computational Finance Seminar, Cornell Theory Center. (December 2004)  
Statistics Seminar, Colorado State U. (October 2004)  
Semimartingale Theory and Practice in Finance, Banff, Canada. (June 2004)  
Statistics Seminar, Cornell U. (April 2004)  
Statistics Seminar, Rutgers U. (February 2004)  
Statistics in Finance, MFO, Oberwolfach, Germany. (January 2004)  
Bachelier Seminar, Paris, France. (January 2004)

Numerical Probabilistic Methods for High-dimensional Problems in Finance



AIM. Palo Alto, CA. (December 2003)  
AMS Regional Conference, Binghamton. NY. (October 2003)  
ORIE Colloquium, Cornell U. (September 2003)  
AMS-IMA-SIAM Research Conference, Snowbird. (June 2003)  
IEOR Seminar, UC at Berkeley. (April 2003)  
ORIE Seminar, Cornell U. (Feb. 2003)  
Math Colloquium, U. of Georgia. (Feb. 2003)  
ORFE Seminar, Princeton U. (Feb. 2003)  
Finance Seminar, Business School, U. Michigan. (Jan. 2003)

Math Seminar, Shandong U., China. (April 2002)  
Math Seminar, USTHK, Hong Kong, China. (April 2002)  
IEOR Seminar, CUHK, Hong Kong, China. (April 2002)  
Math Colloquium, Lehigh U. (May 2002)  
American Mathematics Society Meeting, Ann Arbor. (March 2002)

Math Tutorial, Stanford U. (December 2001)  
Applied Math Seminar, Stanford U. (November 2001)  
Finance Seminar, MS&E Northwestern U. (October 2001)  
International Conference on Mathematical Finance, Shanghai, China. (May 2001)

Goldstine Fellowship Inauguration Lectures, IBM Research at Watson, Almaden, Austin.  
(November–December 1999)  
Fields Institute, Toronto, Canada. (November 1999)

Workshop on Mathematical Finance, Northwestern U. (October 1998)

**Patent applications**

X. Guo and B. Ray. “Model and structure for dynamic sampling method in on-line process,” US pat. 6999895B2.

X. Guo, T. Kumar, and G. Parija. “Evaluation of long-term lease contracts under demand uncertainty,” YOR9-2003-0283-US1.

X. Guo and J. Tomlin. “System and method for bandwidth management: Pricing and capacity planning,” YOR8-2000-0879.

X. Guo. “Optimal algorithm for online auctions,” YOR8-2000-0293.

X. Guo and Q-B. Nguyen. “Multiparty negotiation optimization algorithm,” YOR8-2000-0673.

**Collaborators**

Arindam Banerjee (U. Minnesota)  
Matteo Basci (UC Berkeley)  
Haoyang Cao (UC Berkeley)  
Arijit Chakrabarty (Cornell U.)  
Aaron Chen (UC Berkeley)  
Ismail Onur Filiz (UC Berkeley)  
Johnny Hong (UC Berkeley)  
Anran Hu (UC Berkeley)  
Charles-Albert Lehalle (Imperial)  
Robert Jarrow (Cornell U.)  
Phil Kaminsky (UC Berkeley)  
Joon Seok Lee (UC Berkeley)  
Haizhi Lin (Credit Swiss First Boston)  
Tianyi Lin (UC Berkeley)

Jun Liu (Columbia U.)  
Jianjun Miao (Boston U.)  
Christian Menn (Cornell U.)  
Erwan Morellec (U. Rochester)  
Jason Morton (Stanford U.)  
Chen Pan (NUS, Singapore)  
Shige Peng (Shandong U., China)  
Huyên Pham (U. Paris 7, France)  
Zhan Ruan (CIBC, China)  
Bernd Sturmfels (UC Berkeley)  
Larry Shepp (Rutgers U.)  
Pascal Tomecek (J.P. Morgan)  
Hui Wang (Brown U.)  
Guoliang Wu (UC Berkeley)  
Renyuan Xu (UC Berkeley)  
Nan Yang (UC Berkeley)  
George Yin (Wayne State U.)  
Kuan Ming Yuen (UC Berkeley)  
Yan Zeng (Bloomberg Research)  
Mihail Zervos (London School of Economics, UK)  
Qing Zhang (U. Georgia)  
Xun Yu Zhou (Oxford U., UK)  
Lingjiong Zhu (FSU)

**Teaching***UC Berkeley*

Risk, Modeling, and Uncertainty (MEng 241, Fall 2017, Fall 2018)  
Portfolio Risk Management (IEOR 290R, MEng level; Spring 2013)  
Applied Stochastic Processes (IEOR 263B, Advanced PhD level; Spring 2013, 2014, 2015, 2016, 2017, 2018)  
Operations Research (IEOR 172; Fall 2011)  
Financial Engineering II (IEOR 222; Fall 2011, 2014, 2015, 2016, Spring 2018)  
Operations Research (IEOR 161; Spring 2011, 2014, 2015, 2016)  
Introduction to Financial Engineering (IEOR 221; Spring 2011, 2012)  
Probability and Risk Analysis for Engineers (IEOR 172; Fall 2010)  
Engineering Design and Analysis (E10, UG Level; Spring 2009)  
Financial Engineering I (IEOR 290A, UG/Master/PhD level; Fall 2008)  
Seminar on Stochastic Calculus (IEOR 298, PhD level; Spring 2007, Spring 2008)  
Financial Engineering II (IEOR 290A, Master/PhD level; Spring 2007, Fall 2008)  
Applied Stochastic Processes (IEOR 263A, Master/PhD level; Fall 2006, Fall 2008, Fall 2009)

*Cornell U.*

OR Tools in Finance (ORIE 473, Masters level; Spring 2005, Cornell U.)  
Applied Stochastic Processes (ORIE 650, PhD level; Fall 2004; Fall 2005; Fall 2007; Cornell U.)  
Introduction to Probability and Statistics (ENG270, Sophomore level; Spring 2004, Cornell U.)  
Selected Topics in Applied Probability (ORIE 768, PhD level; Fall 2003, Cornell U.)

Calculus I (Freshman level; Fall 1998, Rutgers U.)  
Calculus II (Business majors; Summer 1998, Rutgers U.)  
Calculus III (Math/Engg. majors; Spring 1998, Rutgers U.)  
Precalculus (Freshman level; Spring 1998, Rutgers U.)

**MEng project advising** Project course for MEng FE focus (ORIE 565, Masters level; Spring 2006, Cornell U.)  
Project course for MEng (ORIE 516, Masters level; Fall 2004, Fall 2005, Fall 2007; Cornell U. )

**MEng & UG advising** 5 MEngs in 2003; 11 MEngs in 2004; 8 MEngs in 2005; 20 MEngs in 2007; Cornell U.  
5 UGs in 2004; 14 UGs in 2005; Cornell U.

**Past PhD advising & mentoring**

Joon Seok Lee (IEOR, UC Berkeley, 2017)  
Zhao Ruan (IEOR, UC Berkeley, 2015)  
Issac Mao (IEOR, UC Berkeley, 2015)  
Chen Pan (Math, USTC of China, Co-advisor with S. G. Zhang, 2015)  
Kelly Choi (IEOR, UC Berkeley, 2014)  
Kuan Ming Yuen (IEOR, UC Berkeley, Co-advisor with P. Kaminsky, 2012)  
Aaron Chen (Mathematics, UC Berkeley, Co-advisor with C. Evans, 2012)  
Xingwei Wu (IEOR, UC Berkeley, 2011)  
Mauricio Jose Junca Pelaez (IEOR, UC Berkeley, Co-advisor with C. Evans, 2011)  
Guoliang Wu (Mathematics, UC Berkeley, Co-advisor with C. Evans, 2009)  
Ismail Onur Filiz (IEOR, UC Berkeley, Jan 2009)  
Pascal Tomecek (ORIE, Cornell, 2007)  
Yan Zeng (Mathematics, Cornell U. Co-advisor with P. Protter, 2006)

Adrien Larrad (Mentor, Statistics, UC Berkeley and Paris VI)  
Ying Xu (Thesis committee, Statistics, UC Berkeley)

Hung Vinh Tran (Thesis committee, Mathematics, UC Berkeley)  
Lucy (Xuan) Fan (Thesis committee, ME, UC Berkeley)  
Jason Morton (Thesis committee, Mathematics, UC at Berkeley)  
Shadi Anani (Thesis Committee, Civil and Environmental Engineering, UC Berkeley)  
Haizhi Lin (Mentor and Thesis committee, Statistics, Cornell)  
Arindam Banerjee (Mentor, IBM summer student, U. Texas at Austin, 2003)  
Jun Liu (Mentor and unofficial advisor, Rutgers U., 1999–2000)  
David Chan (Mentor, IBM summer student, CSIRO, Australia, 2001)  
Menghui Cao (Mentor, IBM summer student, Columbia U., 2000)

**Current advisees**

Matteo Basei (Postdoc)  
Nan Yang (IEOR, Fifth year PhD, UC Berkeley)  
Ren Yuan Xu (IEOR, Fifth year PhD, UC Berkeley )  
Haoyang Cao (IEOR, Fourth year PhD, UC Berkeley)  
Anran Hu (IEOR, Third year, UC Berkeley)  
Yusuke Kikuchi (Second year PhD, UC Berkeley)  
Fangyuan Zhao (Fourth year, Tsinghua-Berkeley)  
Guan Wang (Second year, Tsinghua-Berkeley)

**Professional services**

Scientific Committee, AMaMe, Paris (2019)  
Organizing Committee, WCMF, USC (2018)  
Organizing Committee, Bachelier World Congress, New York, NY. (2016)  
Organizing Committee, IMS-FIPS workshop. Edmonton, Canada. (2016)  
Co-Organizer, Berkeley-Columbia Workshop on Statistics and Engineering, Berkeley, CA. (2016, 2018)  
Co-Organizer and Panelist, First National Conference for Women in Financial Engineering, IPAM, (2015)  
Panelist, Data Analytics. UC Berkeley and Paris. (2014, 2015)  
Co-founder and co-chair, Women In Financial Engineering, USA. (2014–)  
Scientific Committee, 6th Western Consortium in Mathematical Finance, Santa Barbara, CA. (2014)  
Organizing Committee, IMS Fourth Workshop on “Finance: Probability and Statistics,” Sydney, Australia. (2014)  
Organizing Committee, Fifth SIAM Conference on Financial Mathematics and Engineering (FM14), Chicago, IL. (2014)  
Big Data Steering Committee, Haas Business School, UC Berkeley, CA. (2014)  
Co-organizer, Western Consortium of Mathematical Finance, Stanford, CA. (2013)  
Founder, Risk Analytics and Data Analysis Research Lab (RADAR), UC Berkeley. (2012)  
Co-organizer, IMS Second Workshop on “Finance: Probability and Statistics,” Berkeley, CA. (2012)  
Co-founder and co-chair, IMS Special Interest Group on “Finance: Probability and Statistics,” (2011–)  
Co-organizer, IMS First Workshop on “Finance: Probability and Statistics,” New York, NY. (2011)  
Scientific Committee, 4th Western Consortium in Mathematical Finance, Los Angeles, CA. (2011)  
NSF Panel Review for Division of Applied Mathematics (2009, 2011, 2012)  
Organizing Committee, 3rd Western Consortium in Mathematical Finance, Santa Barbara, CA. (2009)

Editor-in-Chief, Chinese Stocks and Futures (2016–)  
Associate Editor, Probability, Uncertainty and Quantitative Risk (2016–)  
Associate Editor, Market Microstructure and Liquidity (2014–)  
Associate Editor, Operations Research (2015–)  
Associate Editor, IIE Transactions (2015–)  
Associate Editor, Mathematics and Financial Economics (2014–)  
Associate Editor, Stochastic Models (2010-2018-)  
Editorial Board, European Journal of Industrial Engineering (2006–2009)

Organizer, Financial Mathematics Seminar Series, IBM T. J. Watson Research Center. (2000)  
Member of AMS, IMS, INFORMS, SIAM, and Bachelier

**Professional services (referee)**

AMS Review, AMS Book Review, Annals of Applied Probability, Computational Statistics and Data Analysis, Finance and Stochastics, IEEE Trans. Automatic Control, IEEE Trans. Information Theory, J. Applied Probability, International J. Applied and Computational Finance, J. Economics and Dynamic Control, Operations Research Letters, Mathematics of Operations Research, Mathematical Finance, NSF proposals in Applied Mathematics, NSF proposals in Economics, Operations Research, Probability Survey, Quantitative Finance, SIAM Control and Optimization, Stochastic Models, Stochastic Process and its Applications, STOC 2001, FOCS 2001.

**UC Berkeley Services** Graduate Fellowship Committee, UC Berkeley, 2012, 2013, 2014, 2015, 2016, 2017

Dean Search Committee, COE, 2018

Secrete Committee, COE, 2015–present

Student Relation Committee, COE, 2015–present

Member, Graduate Studies, COE, 2011–2014

Member of Diversity and Inclusion Task Force, COE, 2009–2010

Chair of Hiring Committee, IEOR, 2018

Member of Hiring Committee, IEOR, 2014, 2016

Chair of Graduate Admission Committee, IEOR, 2015, 2016, 2017

Founder, RADAR Lab, 2012–present

Co-chair, IEOR Colloquium, 2008-2009, 2013, 2014, 2016, 2017, 2018

Head Graduate Advisor, IEOR, 2009–2015

Graduate Admission Committee, IEOR, 2009, 2010

**Cornell services**

Graduate field member: CAM, OR, Statistics

Organizer, Financial Engineering Seminar, ORIE Manhattan, 2005–2006

Organizer, ORIE Financial Engineering Seminar, 2005–2006

Member, College of Engineering, International Studies Committee, 2007

Member, School of ORIE Curriculum Reform Committee, 2005–2007

Member, School of ORIE Hiring Committee, Fall 2005–Spring 2006

Member, Center for Applied Mathematics Colloquium Committee, 2005–2006

Co-advisor, Society of Women Engineers, 2004–2007

Judge, Mathematics Modeling Competition, 2004–2006

Participant, Workshop for Search Committees in Women and Minority Hiring, 2005