

## Curriculum Vitae: Xunyu Zhou

**Academic qualifications:** Fellow of IEEE; Fellow of SIAM; PhD in Applied Mathematics (Fudan, July 1989)

**Present position:** Liu Family Professor of Financial Engineering, Director of FDT Center on Intelligent Asset Management, Department of Industrial Engineering and Operations Research, Columbia

### Academic positions held:

- September 2016–: Liu Family Professor of Financial Engineering, Department of Industrial Engineering and Operations Research, Columbia University, USA
- September 2007– August 2016: Nomura Professor of Mathematical Finance, Mathematical Institute, The University of Oxford, UK
- January 2013 – October 2014: Choh-Ming Li Professor of Financial Engineering, Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong, Hong Kong
- August 1993–December 2012: Chair Professor/Professor/Associate Professor/Assistant Professor, Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong, Hong Kong
- May 1991-August 1993: Postdoctoral Fellow, Faculty of Management, University of Toronto, Canada
- October 1989-April 1991: Postdoctoral Fellow, Department of Mathematics, Faculty of Science, Kobe University, Japan

**Editorial boards (past and present):** *Mathematical Finance*, *Mathematics of Operations Research*, *SIAM Journal on Financial Mathematics*, *Quantitative Finance*, *Stochastic Models*, *Operations Research*, *Mathematics and Financial Economics (Co-Editor)*, *SIAM Journal on Control and Optimization*, *Asia-Pacific Financial Markets*, *IEEE Transactions on Automatic Control*, *The SIAM Book Series on Financial Mathematics*

### Awards and honours:

- Archimedes Society Lecture, Columbia University, 2017
- Elected Fellow of SIAM, 2016
- Wolfson Research Award, The Royal Society, UK, 2013
- Humboldt Distinguished Lecturer, Humboldt - Universität zu Berlin, Germany, 2013
- Plenary speaker, Congress of Bachelier Finance Society, 2012
- 45-minute invited speaker, International Congress of Mathematicians, 2010
- Over 20 keynote/plenary lectures and over 70 invited lectures in international conferences/workshops/symposiums, 1993-2011
- Elected Fellow of IEEE, 2005
- Croucher Senior Research Fellowship, Croucher Foundation, 2005
- SIAM Outstanding Paper Prize, SIAM, 2003
- Alexander von Humboldt Research Fellowship, Germany, 1993

**Research grants:** total grants awarded over \$ 6,000,000

**Publication records:** 1 research monograph, 3 edited books, and about 130 papers published in scholarly journals; see <http://www.columbia.edu/~xz2574/article.htm> for complete lists

### Selected publications:

1. Y.-J. Huang, A. Nguyen-Huu and X. Zhou, “General stopping behaviors of naive and non-committed sophisticated agents, with application to probability distortion”, to appear in *Mathematical Finance*.
2. Z. Xu, X. Zhou and S. Zhuang, “Optimal insurance with rank-dependent utility and increasing indemnities”, *Mathematical Finance*, Vol. 29 (2019), pp. 659-692.

3. Y. Hu, H. Jin and X. Zhou, "Time-inconsistent stochastic linear-quadratic control: Characterization and uniqueness of equilibrium", *SIAM Journal on Control and Optimization*, Vol. 55 (2017), pp. 1261-1279.
4. J. Xia and X. Zhou, "Arrow-Debreu equilibria for rank-dependent utilities", *Mathematical Finance*, Vol. 26 (2016), pp. 558-588.
5. X. He and X. Zhou, "Hope, fear and aspirations", *Mathematical Finance*, Vol. 26 (2016), pp. 3-50.
6. Z. Xu and X. Zhou, "Optimal stopping under probability distortion", *Annals of Applied Probability*, Vol. 23 (2013), pp. 251-282.
7. H. Jin and X. Zhou, "Greed, leverage, and potential losses: A prospect theory perspective", *Mathematical Finance*, Vol. 23 (2013), pp. 122-142.
8. Y. Hu, H. Jin and X. Zhou, "Time-inconsistent stochastic linear-quadratic control", *SIAM Journal on Control and Optimization*, Vol. 50 (2012), pp. 1548-1572.
9. X. He and X. Zhou, "Portfolio choice under cumulative prospect theory: An analytical treatment", *Management Science*, Vol. 57 (2011), pp. 315-331.
10. A. Shiryaev, Z. Xu and X. Zhou, "Thou shalt buy and hold", *Quantitative Finance*, Vol. 8 (2008), pp. 765-776.
11. H. Jin and X. Zhou, "Behavioral portfolio selection in continuous time", *Mathematical Finance*, Vol. 18 (2008), pp. 385-426.
12. D. Yao, S. Zhang and X. Zhou, "Tracking a financial benchmark using a few assets", *Operations Research*, Vol. 54 (2006), pp. 232-246.
13. T. Bielecki, H. Jin, S. Pliska and X. Zhou, "Continuous-time mean-variance portfolio selection with bankruptcy prohibition", *Mathematical Finance*, Vol. 15 (2005), pp. 213-244.
14. D. Yao, S. Zhang and X. Zhou, "Stochastic LQ control via semidefinite programming", *SIAM Journal on Control and Optimization*, Vol. 40 (2001), pp. 801-823.

#### **Professional services:**

- General Chair, 2020 Bachelier Finance Society Congress
- Council Member, Bachelier Finance Society, 2014-
- Founder and Member of Steering Committee, Hong Kong Consortium of Quantitative Finance, 2010-
- Founder and Member of Steering Committee, Shanghai Consortium of Quantitative Finance, 2012-
- Member, Research Grants Council (RGC), Hong Kong SAR Government, 2008-2011
- Member, Engineering Panel of the Research Grants Council (RGC), Hong Kong SAR Government, 2004-2008
- Member, Scientific Committee, Center for Financial Engineering and Risk Management, Chinese Academy of Sciences, 2003-

#### **PhD students supervised:**

- Ngo Tai Fong, 1993-1996 (now a research scientist at Ford)
- Wai Ki Ching, 1994-1997 (now an associate professor at University of Hong Kong)
- Xun Li, 1996-2000 (now an associate professor at Hong Kong Polytechnic University)
- Xi Chen, 1996-2000 (now an associate professor at Tsinghua University)
- Chun Hung Chiu, 2000-2003 (now an associate professor at Zhongshan University)
- Hanqing Jin, 2001-2004 (now an associate professor at University of Oxford)
- Zuoquan Xu, 2004-2007 (now an assistant professor at Hong Kong Polytechnic University)
- Xuedong He, 2006-2009 (now an assistant professor at Columbia University)
- Hualei Chang, 2007-2010 (now a quant at Goldman Sachs)
- Yifei Zhong, 2008-2011 (now a quant at Goldman Sachs)

- Sang Hu, 2010-2014 (now a postdoc at National University of Singapore)
- Shengchao Zhuang, 2010-2014 (now a postdoc at University of Waterloo)
- Wei Wei, 2012-
- Pengyu Wei, 2013-
- Lin Chen, 2016-
- Xiao Xu, 2017-