



Mike Yan, Ph.D., CFA, FRM **Principal**

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Key Qualifications

Dr. Yan is Principal at SLCG Economic Consulting, LLC. He received his B.S. in Applied Mathematics from Fudan University in Shanghai, P.R. China and his Ph.D. in Applied Mathematics from University of California, Davis.

At SLCG, Dr. Yan worked on litigation cases involving municipal bonds arbitrage strategy, interest rate swaps, credit default swap, structured notes, structured CD, equity index annuity, auction rate securities, leverage and inverse leveraged exchange traded funds, privately-held business valuation, security valuation, and bank proprietary Indexes. Dr. Yan also specialized in large data analysis and worked on projects involving Cryptocurrency tradings, future and option tradings, and opioid shipments and dispensing. Dr. Yan has published various papers in finance and applied math journals. He specializes in the fields of data analysis, statistics, applied mathematics, optimization and modeling. His doctoral work focused on the stability and resolution analysis in the imaging science.

Before joining SLCG, Dr. Yan served as von Karman Instructor of Applied and Computational Mathematics (now Department of Computing and Mathematical Sciences) at California Institute of Technology.

Professional Experience

SLCG ECONOMIC CONSULTING, LLC

2015 - *Principal*

2011 - 2015 *Senior Financial Economist*

CALIFORNIA INSTITUTE OF TECHNOLOGY

2008 - 2011 *von Karmen Instructor of Applied and Computational Mathematics*

Education and Profession Designations

UNIVERSITY OF CALIFORNIA, DAVIS

2008 Ph.D., Applied Mathematics

FUDAN UNIVERSITY, SHANGHAI P.R. CHINA

2002 B.S., Applied Mathematics

Publications and Working Papers

1. “Rating Brokerage Firms by Their Complaint Histories Rather Than by Their rokers’ Histories”, with Craig McCann and Chuan Qin.
2. “Puerto Rico Securities Arbitration Settlements and Awards Likely to Exceed \$1.25 Billion”, with Craig McCann and Chuan Qin, 2019
3. “Structured Products and the Mischief of Self-Indexing”, with Geng Deng and Craig McCann, the *Journal of Investing*, Vol 7, No. 4, pp 16-29, 2017
4. “How Widespread and Predictable is Stock Broker Misconduct?”, with Craig McCann, and Chuan Qin, the *Journal of Investing*, Vol 26, No. 2, pp 6-25, 2017.
5. “Ex-post Structured Product Returns: Index Methodology and Analysis”, with Geng Deng, Tim Dulaney, Tim Husson, and Craig McCann, the *Journal of Investing*, 24, pp 45-58, 2015.
6. “An Adaptive ANOVA-Based Data-Driven Stochastic Method for Elliptic PDEs with Random Coefficient”, with Thomas Hou, Xin Hu, Guang Lin, and Zhiwen Zhang, *Commun. Comput. Phys.*, 16, pp 571-598, 2014.
7. “Efficient Valuation of Equity-Indexed Annuities under Levy Processes Using Fourier-Cosine Series”, with Geng Deng, Tim Dulaney, and Craig McCann, accepted by *Journal of Computational Finance*.
8. “Crooked Volatility Smiles: Evidence from Leveraged and Inverse ETF Options”, with Geng Deng, Tim Dulaney, and Craig McCann, *Journal of Derivatives & Hedge Funds*, 19, pp 278-294, 2013.
9. “A Data-driven Stochastic Method for Elliptic PDEs with Random Coefficients”, with Mulin Cheng, Thomas Hou, and Zhiwen Zhang, *SIAM/ASA J. Uncertainty Quantification*, 1, pp 452-493, 2013.
10. “The Rise and Fall of Apple-linked Structured Products”, with Geng Deng, Tim Dulaney, and Craig McCann, 2013.
11. “Compressed Remote Sensing of Sparse Object”, with Albert Fannjiang and Thomas Strohmer, *SIAM Imaging Science* 3, pp 595-618, 2010.
12. “A Variant of the EMD Method for Multi-scale Data”, with Thomas Hou and Zhaohua Wu, *Advances in Adaptive Data Analysis*, 1, pp 483-516, 2009.
13. “Synthetic Aperture Imaging of Multiple Point Targets in Rician Fading Media”, with Albert Fannjiang and Knut Solna, *SIAM Imaging Science* 2, pp 344-366, 2009.
14. “Multi-Frequency Imaging of Multiple Targets in Rician Fading Channels: Stability and Resolution”, with Albert Fannjiang, *Inverse Problem* 23, pp 1801-1819, 2007. (Featured article)
15. “Imaging Problems in Random Media”, Ph.D. Dissertation, 2008.
16. “The Existence of the Periodic Solutions of the 3-d Non-homogeneous Wave Equations with Cauchy Boundary Conditions”, B.S. Thesis, 2002.

Conference Presentations and Invited Talks

- “Introduction to Options”, PIABA Annual Meeting, Oct 2018.
- “Uncertainty Quantification: A Data-driven Stochastic Multi-scale Method,” *Applied and PDE seminar*, University of California, Davis, CA, Oct 2010.

- “A Multi-scale Random Basis Method for Stochastic PDE,” contributed talk of *SLAM annual meeting*, Pittsburgh, PA, Jun. 2010.
- “Multi-scale Stochastic Finite Element for Stochastic Partial Differential Equations,” *Fluid Dynamics, Analysis and Numerics (FAN)*, Duke University, NC, Jun 2010.
- “Imaging of multiple targets in Rician fading media,” *Special seminar of Applied and Computational Mathematics*, California Institute of Technology, Pasadena, CA, Feb 2008.
- “Multi-frequency imaging of multiple targets in Rician fading media,” *presented to the working group of random media*, SAMSI, NC Dec 2007. Also *presented in the Probability seminar of Math Department of University of California*, Irvine, CA, *Student-run Applied Math Seminar of University of California*, Davis, CA, Nov 2007, and *SAMSI Opening Workshop – Program on Random Media*, Sep 2007.
- “Singular Value Decomposition in Target Detection,” *PDE seminar of Math Department*, University of California, Davis, CA, May 2006.