CURRICULUM VITAE

Ben Van Vliet

Address: Stuart School of Business, Illinois Tech, 565 West Adams, Chicago, Illinois 60661
Email: bvanvliet@stuart.iit.edu

ACADEMIC HISTORY

ASSOCIATE PROFESSOR OF FINANCE with tenure	2018/Present
ASSISTANT PROFESSOR OF FINANCE	2012/18
LECTURER OF FINANCE	2002/12
DIRECTOR OF RECRUITING AND ADVISING	1999/02
DIRECTOR, CENTER FOR STRATEGIC FINANCE	2015/Present
Stuart School of Business, Illinois Institute of Technology	

EXTERNAL SERVICE

CO-EDITOR IN CHIEF, *Algorithmic Finance*	2024/Present
MEMBER, Product Advisory Committee, Digital Token Identifier Foundation	2021/Present
MEMBER, Probable Cause / Business Conduct Committee, CME Group	2011/2018

EDUCATION

PH.D., Management Science	2012
M.S., Financial Markets and Trading	1999
CERTIFICATE in UNIX System/C/C++ Programming	1998
CERTIFICATE in Client/Server Technology	1998
Illinois Institute of Technology	
B.A., Business Administration	1994
Calvin University	

REFEREED PUBLICATIONS

1. "Shared Conceptions in Capital Design: Co-Creation and Co-Evolution in Asset Allocation." *She Ji: The Journal of Design, Economics, and Innovation.* Forthcoming.

2. "How does HFT take advantage of trend-volume strategies?" with R. Cooper and S. Li. *Journal of Investing.* Forthcoming.

3. "Digital Transformation: The Geopolitical-Organizational Nexus," with W. Currie and V. Weerakkody. *Journal of Information Technology*, Special Issue: Digital Transformation as Geo-Political, Organizational and Technological Nexus. Vol. 39, No. 2. 2024.

4. "Knowledge Management and Capability Theory in Structured Products: Perspectives from Industry Professionals" with S.Y. Cha, R. Cooper, and L. Zhu. *Journal of Knowledge Management Practice*. Vol. 24, No. 2. 2024.

5. "The Pacifying Spike: High Frequency Trading and Its Mitigating Influence on Market Volatility" with R. Cooper and S. Li. *Journal of Investing*. Vol. 35, No. 1. 2025.

6. "A Dynamic Program Real Option Framework for Valuing Staged Innovation Projects With Serial Correlations, Sale of IP and Abandonment: Implications for Success Factors" with A. Kumiega and G. Sterijevski. *Wilmott*, Vol. 2024, No. 129. 2024.

7. "A Model of Decentralized Oversight for the Digital Asset Industry with an Example AML/KYC Standard." *Journal of Payments Strategy & Systems*. Vol. 18, No. 1. 2024.

8. "Synchronizing Decisions: A Dynamic Programming, Real Option Framework for New Product Development with Stage-to-Stage Correlations," with A. Kumiega and G. Sterijevski. *Wilmott*. Vol. 2023, No. 124. 2023.

9. "Competitive Advantage in Algorithmic Trading: A Behavioral Innovation Economics Approach" with R. Cooper, W. Currie, and J. Seddon. *Review of Behavioral Finance*. Vol. 15, No. 3. 2023.

10. "From Decision Optimization to Satisficing: Regulation of Automated Trading in the US Financial Markets" with W. Currie and J. Seddon. *Information & Management*. Vol. 59, No. 8. 2022.

11. "A Behavioral Approach to the Lean Startup/Minimum Viable Product Process: The Case of Algorithmic Financial Systems." *International Journal of Innovation Management*. Vol. 24, No. 3. 2020.

12. "Iso-Risk: An Analysis of Risk-Taking in Fixed Income Markets" with A. Xanthopoulos. *Applied Economics*. Vol. 51, No. 50. 2019.

13. "A Retrospective Look: 'Phantom Liquidity and High Frequency Quoting'" with J. Blocher, R. Cooper, and J. Seddon. *Journal of Trading*. Vol. 13, No. 4. 2018.

14. "An Alternative Model of Metcalfe's Law for Valuing Bitcoin." *Economics Letters*. Vol. 165. 2018.

15. "An Empirical Study of Volatility Spillover Worldwide," with A.F. Olivares, A. Kumiega and G. Sterijevski. *Wilmott*. 95. 2018.

16. "Capability Satisficing in High Frequency Trading." *Research in International Business and Finance*. Vol. 42. 2017.

17. “How Does High Frequency Trading Affect Low Frequency Trading?” with R. Cooper and K. Li. *Journal of Behavioral Finance*. Vol. 19, No. 2. 2018.

18. “High Frequency Trading and Conflict in the Financial Markets” with R. Cooper and J. Seddon. *Journal of Information Technology*. Vol. 32, No. 3. 2017.

19. “Phantom Liquidity and High Frequency Quoting” with J. Blocher, R. Cooper, and J. Seddon. *Journal of Trading*. Vol. 11, No. 3. 2016.

20. “Beyond the Flash Crash: Systemic Risk, Reliability, and High Frequency Financial Markets” with A. Kumiega and G. Sterijevski. *Journal of Trading*. Vol. 11, No. 2. 2016.

21. “The Mysterious Ethics of High Frequency Trading” with R. Cooper and M. Davis. *Business Ethics Quarterly*. Vol. 26, No. 1. 2016.

22. “FinQL: A Query Language for Big Data in Finance” with J. Mulla. *Algorithmic Finance*. Accepted.

23. “Expected Return in High Frequency Trading” with R. Cooper. *Journal of Trading*. Vol. 10, No. 2. 2015.

24. “Multi-scale Capability: A Better Approach to Performance Measurement for Algorithmic Trading” with R. Cooper and M. Ong. *Algorithmic Finance*. Vol. 4, No. 1-2. 2015.

25. “Unconstrained Strategies and the Variance-Kurtosis Trade-off’ with A. Kumiega and T. Xanthopoulos. *Applied Financial Economics* (now merged with *Applied Economics*). Vol. 24, No. 15. 2014.

26. “Perspectives on Hedge Fund Herding: A Survey of Analytical Methods” with A. Kumiega and G. Sterijevski. *Wilmott*. Vol. 2014, No. 72.

27. “Trading System Capability” with A. Kumiega and T. Neururer. *Quantitative Finance*. Vol. 14, No. 3. 2014. Featured Article.

28. “The Rationale for AT 9000: An ISO 9000-style Quality Management System Standard for Automated Trading” with A. Kumiega, R. Cooper and J. Northey. *Journal of Trading*. Vol. 8, No. 3. 2013.

29. “A Practical Real Options Approach to Valuing High Frequency Trading System R&D Projects” with A. Kumiega. *Journal of Trading*. Vol. 8, No. 3. 2013.

30. “Bank on It: Ethics and Quality Will Strengthen Automated Trading and Finance” with M. Davis and A. Kumiega. *Quality Progress*. June, 2013.

31. "Ethics, Finance, and Automation: A Preliminary Survey of Problems in High Frequency Trading" with M. Davis and A. Kumiega. *Science and Engineering Ethics*. Vol. 19, No. 3. 2013.

32. "Implied ICA: Factor Extraction and Multi-Asset Derivative Pricing" with A. Kumiega and T. Neururer. *Journal of Derivatives*. Vol. 19, No. 4. 2012.

33. "Whole Distribution Statistical Process Control for High Frequency Trading" with R. Cooper. *Journal of Trading*. Vol. 7, No. 2. 2012.

34. "Investor Behavior and Hedge Fund Stability" with A. Kumiega and T. Neururer. *Journal of Investing*. Vol. 21, No. 2. 2012.

35. "Automated Finance: Assumptions and Behavioral Aspects of Algorithmic Trading" with A. Kumiega. *Journal of Behavioral Finance*. Vol. 13, No. 1. 2012.

36. "Preventing Another Crisis: Quality Data for MBS Markets" with A. Kumiega and A. Xanthopoulos. *Accounting and Finance Research*. Vol. 1, No. 1. 2012.

37. "Independent Component Analysis for Realized Volatility: Analysis of the Stock Market Crash of 2008" with A. Kumiega and T. Neururer. *Quarterly Review of Economics and Finance*. Vol. 51, No. 3. 2011.

38. "On Hedge Fund Structures: Allocation Models for Illiquid Investments in New Ventures" with A. Kumiega and M. Lech. *Journal of Wealth Management*. Vol. 3, No. 13. 2010.

39. "Trading Model Uncertainty and Statistical Process Control" with J.F.O. Bilson and A. Kumiega. *Journal of Trading*. Vol. 5, No. 3. 2010.

40. "Trading Machines: Using SPC to assess the performance of financial trading systems" 8with Z. Hassan and A. Kumiega. *Quality Management Journal*. Vol. 17, No. 2. 2010.

41. "In Crisis, Give Credit to Quality" with A. Kumiega. *Quality Progress*. December, 2008.

42. "Optimal Trading of ETFs: Spreadsheet Prototypes and Applications to Client-Server Applications" with A. Kumiega. *Interfaces* (now the *INFORMS Journal on Applied Analytics*). Vol. 38, No. 4. 2008.

Chapters in Edited Books

1. "Ethics for Automated Financial Markets" with R. Cooper, M. Davis, and A. Kumiega. Chapter in *Handbook on Ethics in Finance*. Edited by L. San-Jose, J.L. Retolaza, and L. Van Liedekerke. Springer Meteor. 2021.

2. "Quality in the Front Office" with A. Kumiega. Chapter in *Risk Management in Finance: Six Sigma and Other Next Generation Techniques*. Edited by A. Tarantino and D. Cernauskas. John Wiley & Sons. 2009.

Refereed Conference Presentations

1. "The Role of Government in the Regulation of Financial Markets–New Rules for New Players," with R. Cooper, W. Currie, and J. Seddon. 23rd Americas Conference on Information Systems, August 12, 2017. Boston, MA.

2. "An Integrated Paradigm of the Behavior of High Frequency Traders," with R. Cooper and J. Seddon. 7th International Conference of the Financial Engineering and Banking Society. June 1-3, 2017. University of Strathclyde, Glasgow.

3. "Capability Satisficing in High Frequency Trading." Behavioural Finance Working Group Conference 2017. June 12-13. Queen Mary University, London.

4. "Financialization, High-Frequency Trading, and Price Discovery," with R. Cooper and J. Seddon. Society for Economic Anthropology Conference, Financialization and Beyond: Debt, Money, Wealth, and the Capture of Value, April 7, 2017, University of Iowa.

5. "Liquidity and Price Discovery: The Impact of High Frequency Trading" with J. Blocher, R. Cooper, J. Seddon. Conference on Banking & Finance, University of Portsmouth UK, September 24-25, 2016

6. "The Evolution of High-frequency Trading and a Changing Market Structure: What Has Evolved from the Crash," with R. Cooper and J. Seddon. INFINITI Conference on International Finance 2016. June 13, 2016. Trinity College Dublin.

7. "Methodological Challenges in Critical Finance Studies: Designing a Research Agenda for Understanding Financial Markets," with R. Cooper and J. Seddon. 4th Annual Ontology Workshop. Embodiment and Emotions: Ontological, Ethical, Epistemological and Methodological Considerations. May 10, 2016. University of Liverpool.

8. "Do Investors Trade Off Variance and Kurtosis?" with A. Xanthopoulos. 2016 IPC Winter Research Symposium. January 19, 2016. Jackson Hole.

9. "Phantom Liquidity and the Flash Boys" with J. Blocher and R. Cooper. 11th Annual Meeting of the Financial Research Association. December 13-14, 2014. Las Vegas.

10. "How Does High Frequency Trading Affect Low Frequency Trading?" with R. Cooper and K. Li. 2014 International Conference on Corporate Finance and Capital Markets hosted by the Academy of Financial Research. November 7-8.

11. “Reliability Analysis for Algorithmic Trading and Financial Compliance” with A. Kumiega. 2014 Academy of Financial Services Conference. October 16-17, Nashville, TN.

12. “Multi-scale Capability: A Prudent Approach to Performance Measurement,” with R. Cooper and M. Ong. 2014 Midwest Finance Association Conference. March 5-8, Orlando, Florida.

13. “Reliability Analysis for Financial Compliance” with A. Kumiega and T. Xanthopoulos. 1st Annual International Conference on Industrial and Systems Engineering, June 24-27, 2013, Athens, Greece.

14. “Iso-Effect Contour Lines and Implications on the Canadian and U.S. Bond Markets” with A. Kumiega and T. Xanthopoulos. Multinational Finance Society, 20th Annual Conference, Izmir, Turkey. June 30 - July 3, 2013.

15. “A Model of Hedge Fund Stability” with A. Kumiega and T. Neururer. Presented at the Financial Management Association 2011 Annual Conference. October 20. Denver, Colorado.

16. “Controlling trade selection algorithms with statistical process control” with A. Kumiega. Accepted and presented at Financial Management Association 2009 Annual Conference. October. Reno, Nevada. This paper was a semi-finalist for the best paper award in market microstructure.

17. “On Hedge Fund Structures: Allocation Models for Illiquid Investments in New Ventures” with A. Kumiega and M. Lech. Presented at 21th Annual Meeting of the Academy of Entrepreneurial Finance. September, 2009. Chicago, Illinois.

18. “A Cross-Functional Methodology: Software development for analytics-driven firms.” Invited paper presented at the 4th World Congress for Software Quality. September, 2008. Bethesda, Maryland.

19. “The Money Document: Seeding Hedge Fund Entrepreneurs” with A. Kumiega and B. Batavia. Accepted paper presented at the 3rd European Conference on Entrepreneurship and Innovation. September, 2008. Winchester, England.

20. “A Formalized Methodology for Raising Capital to Seed Hedge Fund Start Ups” with Dr. A. Kumiega and B. Batavia. Accepted paper presented at the 20th Annual Meeting of the Academy of Entrepreneurial Finance. September, 2008. Las Vegas, Nevada.

21. “A Methodology for Trading and Investment System Development: A Taxonomy of Risk” with Andrew Kumiega. Presented at the 2007 Joint Statistical Meetings of the American Statistical Association. November, 2007. Salt Lake City, Utah.

22. “Time is Money in Trading: Rapid Development of Algorithms Using Excel” with Andrew Kumiega. Presented at the INFORMS Annual Meeting. November, 2007. Seattle, Washington.

23. “Risk Management for Complex Calculations: EuSpRIG Best Practices in Hybrid Applications” with D. Cernauskas and A. Kumiega. Presented at the EuSprig 2007 conference. July, 2007. London, England.

24. “A Software Development Methodology for Research and Prototyping in Financial Markets” with A. Kumiega. Presented at the EuSprig 2006 conference. July 5-7, 2006. Cambridge, England.

25. “A Software Development Methodology for Financial Markets” with A. Kumiega. Presented at the 11th International Conference on Software Quality on October 23, 2001.

Books

1. *Quality Money Management*, with A. Kumiega, Academic Press/Elsevier, 2008.

2. *Building Automated Trading Systems*, Academic Press/Elsevier, 2006.

3. *Modeling Financial Markets*, with R. Hendry, McGraw-Hill, 2004.

Published Articles

1. “The US and Illinois need market clarity on crypto.” Chicago Tribune. July 17, 2025

2. “Ready, Set, Code.” Trading Technologies' blog *TradeTalk*. October 9, 2013.

3. “Quality Control Will Save Capitalism.” *Guardian.co.uk*. May 25, 2010.

4. “Going the Alpha Mile.” *Automated Trader*. Q2 2009. With P. Perkins and A. Kumiega.

5. “The Five Drivers of Profitability.” *Automated Trader*. Q1 2009. With P. Perkins.

6. “Rapid Model Development (RMD).” *Automated Trader*. Q4 2008. With P. Perkins.

7. “How to Survive the Market’s Cauldron.” *Technical Analyst*. August, 2008.

8. “Quality Management in Financial Markets” with A. Kumiega. *Journal of Global Financial Markets*, Fall, 2003.

9. “21st Century Business.” *Global Study Magazine*, Edition 1.3. 2003.

10. “Obsolescence of the Naked Trader” with A. Kumiega. *Journal of Global Financial Markets*, Winter, 2000.

Ph.D. Dissertations Advised

Kun Li. “High Frequency Trading, Low Frequency Trading, and the Limit Order Market.” 2015. Associate Professor of Economics, Beijing Normal University.

Lei Fan. “Two Essays on Cryptocurrency Markets.” 2022. Assistant Professor at the College of Saint Benedict and Saint John’s University.

Devin Chatterji. “Hedge Fund Replication with Deep Neural Networks and Generative Adversarial Networks.” 2022. Director of Business Insights at Martin Brower.

Xiaoruo Xu. “High Frequency Trading and the Impact of Volume-Duration on Market Quality in the U.S. Futures Markets.” 2023. Market Risk Analyst at Federal Home Loan Bank of Des Moines.

Courses Developed and Taught

BUS 455 Corporate Finance, a course covering NPV and other project evaluation techniques, M&M theorem and related alternatives, plus the use cryptocurrencies and prediction markets to create shareholder value.

FM 490 / University of Chicago, Graham School Pre-MBA Mathematics, a course covering pre-calculus, linear algebra and differential and integral calculus with applications to finance.

MSF 503 Financial Modeling, a core course in Excel, Python, and SQL for modeling in finance, including data preprocessing, simulation, and optimization.

MSF 524 Models for Derivatives, a course covering Ito calculus, stochastic and local volatility, variance reduction, exotic options, prediction markets, exotic options, and advanced simulation techniques using Python.

MSF 547 Machine Learning in Finance, a course covering supervised and unsupervised machine learning techniques and neural networks for regression and classification with applications to quantitative finance and trading. Students cover backtesting, prediction, and natural language processing as they apply in the front office.

MSF 574 C# and Databases for Financial Markets, a course covering C# and the .NET Framework to build event-driven, quantitative financial applications.

MSF 575 C++ for Financial Applications, a course covering C++, from pointers, to objects, to the Standard Template Library and design patterns for financial applications. Particular attention is paid to financial messaging protocols, memory management, and numerical algorithms.

MSF 576 OOP and Algorithmic Trading Systems, a course covering object oriented design of algorithmic trading applications in C++ or C#, including real-time APIs, FIX/SBE, order management, concurrency, and interoperability.

MSF 577 High Frequency Finance, a course covering market microstructure, queue dynamics, Hawkes processes, theory of the HFT firm, algorithmic execution, optimal market making, performance attribution, crypto markets, and market regulation.