Fenghui Yu

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Positions

Oct 2023–Present *Assistant Professor (Tenured)*
Aug 2022–Sept 2023 *Assistant Professor (Tenure-Track)*
- Delft Institute of Applied Mathematics, TU Delft, Netherlands

Jun 2019–July 2022 *Postdoctoral Researcher*
- RiskLab and Department of Mathematics, ETH Zürich, Switzerland

Jan 2019–May 2019 *IMR Postdoctoral Fellow*
- Department of Mathematics, The University of Hong Kong, Hong Kong

Research Visits

Sept–Oct 2025 *FIM (Forschungsinstitut für Mathematik) Academic Guest*
Oct–Dec 2024 Department of Mathematics, ETH Zürich, Switzerland

Aug 2015 *Academic Visitor*
Department of Mathematical Sciences, University of Copenhagen, Denmark

Education

Sept 2014–Dec 2018 Ph.D., Mathematics - The University of Hong Kong, Hong Kong
Thesis: On Pricing, Hedging and Trading in Financial Management

Sept 2010–Jul 2014 B.S. Mathematics; B.E. Finance (Double Degree) - Jilin University, China
Major: Computational Mathematics; Minor: Finance and Financial Management

Research Interests

- Quantitative Methods in Finance, Algorithmic Trading and Market Microstructure
- Applied Probability, Stochastic Modeling and Stochastic Optimal Control
- Machine Learning, Data-driven Innovation and their Applications in Finance

Honors and Awards

2024–2025	IDEA League Fellowship - *IDEA League strategic alliance*
2018	Scientific Research Network (WOG) Grant - *Research Foundation Flanders (FWO), Belgium*
2016, 2018	Conference Grant for Research Postgraduate Students - *The University of Hong Kong, Hong Kong*
2016	SIAM Student Travel Award - *SIAM, USA*
2016	Doris Chen Postgraduate Travel Grant - *The University of Hong Kong, Hong Kong*
2016	International Student Travel Award - *PIMS, Canada*
2014–2018	HKU Foundation Postgraduate Fellowship - *The University of Hong Kong, Hong Kong*

2014–2018	Postgraduate Scholarship - *The University of Hong Kong, Hong Kong*
2012–2014	First Rank Scholarship - *Jilin University, China*
2011–2014	Outstanding Undergraduate - *Jilin University, China*

Fundings

2025–2027 Strategic Research Initiative of *Real-World-Inspired Sequential Decision-Making* (joint application), €20,000 - 4TU.AMI, Netherlands

2024–2025 IDEA League Fellowship (Sole PI), €21,310 - IDEA League strategic alliance

Papers

- Felix Lokin and **Fenghui Yu**. *Fill Probabilities in a Limit Order Book with State-Dependent Stochastic Order Flows.* Preprint, 2026.
- Junhong Dai, Yue Cui, **Fenghui Yu**, Chao Huang, and Panshuo Li. *Reinforcement Learning-based Hierarchical Planning for Multi-Vehicle Coordination in Mixed Unsignalized Intersections.* Preprint, 2025.
- **Feng-Hui Yu**, Wai-Ki Ching, Chu-Fang Wu and Jia-Wen Gu. *Optimal Pairs Trading Strategies: a Stochastic Mean-Variance Approach.* Journal of Optimization Theory and Applications, 196, 36–55, 2023.
- Dong-Mei Zhu, Jia-Wen Gu, **Feng-Hui Yu**, Tak-Kuen Siu and Wai-Ki Ching. *Optimal Pairs Trading with Dynamic Mean-Variance Objective.* Mathematical Methods of Operations Research, 94(1),145–168, 2021.
- Dong-Mei Zhu, Jia-Wen Gu, **Feng-Hui Yu**, Wai-Ki Ching and Tak-Kuen Siu. *How Correlation Risk in Basket Credit Derivatives Might be Priced and Managed?* IMA Journal of Management Mathematics, 32(2), 195–219, 2021.
- **Feng-Hui Yu**, Jie-Jun Lu, Jia-Wen Gu and Wai-Ki Ching. *Modeling Credit Risk with Hidden Markov Default Intensity.* Computational Economics, 54(3), 1213–1229, 2019.
- **Feng-Hui Yu**, Wai-Ki Ching, Jia-Wen Gu and Tak-Kuen Siu. *Interacting Default Intensity with Hidden Markov Process.* Quantitative Finance, 7(5), 781–794, 2017.
- Tak-Kuen Siu, **Feng-Hui Yu**, Qing-Qing Yang, Jia-Wen Gu and Wai-Ki Ching. *Pricing Participating Policies Under Hidden Markov Models via Neural Networks.* Preprint, 2019.
- **Feng-Hui Yu** and Wai-Ki Ching. *Multi-Period Optimal Mean-reverting Spread Trading Strategies with Hidden Markovian Regime Switching.* Working Paper.
- **Feng-Hui Yu**. *Optimal Convergence Trading Strategies with Cutting Loss Exit.* Working Paper.

Co-organized Events

Aug 2025 Minisymposium: *Theory and Algorithms in Trading and Market Simulation*
NUS Quantitative Finance Conference - Singapore

July 2024 Minisymposium: *Control, Optimization and Market Microstructure*
12th Bachelier World Congress - Rio de Janeiro, Brazil

Sept 2023 15th European Summer School in Financial Mathematics - Delft, Netherlands

Academic Talks

Aug 2025 Summer School of the Dutch Sequential Decision-Making Community - Eindhoven, Netherlands

Aug 2025 NUS Quantitative Finance Conference - Singapore

July 2025 SIAM Conference on Financial Mathematics and Engineering (FM25) - Miami, USA

June 2025	12th General AMaMeF Conference - Verona, Italy
May 2025	4TU.AMI.SRI Real-World-Inspired Sequential Decision Making Meeting - Utrecht, Netherlands
Nov 2024	BIRS Workshop on Modeling, Learning and Understanding: Modern Challenges between Financial Mathematics, Financial Technology and Financial Economics - Banff, Canada
July 2024	12th Bachelier World Congress - Rio de Janeiro, Brazil
June 2024	Statistics and Machine Learning in Finance Seminar - University of Oxford, UK
April 2024	Recent Advances in Stochastic Control, Machine Learning and Quantitative Finance - Shanghai, China
April 2024	International Conference on Computational Finance - Amsterdam, Netherlands
June 2023	4TU.Applied Mathematics Institutes Summer Event - Delft, Netherlands
Mar 2023	Dutch Mathematical Finance Seminars - TU Delft, Netherlands
Feb 2023	Seminar in Mathematical Finance - McMaster University, Canada
Nov 2022	14th DIAM Research Day - TU Delft, Netherlands
Oct 2022	Finance Research Day - TU Delft, Netherlands
Oct 2020	Seminar of Josef Teichmann's Group - ETH Zürich, Switzerland
Dec 2019	Youth Probability and Statistics Forum - Beijing, China
Dec 2019	Post/Doctoral Seminar in Mathematical Finance - ETH Zürich, Switzerland
Feb 2018	Workshop on Computational Science and Optimization - Hong Kong
Nov 2016	SIAM Conference on Financial Mathematics and Engineering - Austin, USA
Jul 2016	6th International IMS-FIPS Workshop - Edmonton, Canada
Jun 2016	11th East Asia SIAM Conference - Macao
Feb 2016	4th Asian Quantitative Finance Conference - Osaka, Japan

Teaching

(All of the courses were given in English)

Spring 2026	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, Netherlands *Financial Mathematics*
Fall 2025	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, Netherlands *Calculus (for Computer Science Department)*
Summer 2025	**Lecturer**, Summer School of the Dutch Sequential Decision-Making Community (for the Landelijk Netwerk Mathematische Besliskunde (LNMB))- Eurandom, Netherlands *Foundations of Stochastic Optimal Control and Connections to Reinforcement Learning* and *Applications in Finance – From Stochastic Control to Algorithmic Trading*
Spring 2025 **Spring 2024** **Spring 2023**	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, Netherlands *Special Topics in Financial Engineering (Machine Learning in Finance)*

Spring 2026 **Spring 2025** **Spring 2024** **Spring 2023**	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, Netherlands *Quantitative Risk Management*
Spring 2022 **Spring 2021**	**Teaching Assistant**, RiskLab - ETH Zürich, Switzerland *Quantitative Risk Management*
Fall 2017	**Teaching Assistant**, Department of Mathematics - The University of Hong Kong, Hong Kong *Discrete Mathematics*
Fall 2017 **Fall 2016** **Fall 2015**	**Teaching Assistant**, Department of Mathematics - The University of Hong Kong, Hong Kong *University Mathematics I*
Spring 2015	**Teaching Assistant**, Department of Mathematics - The University of Hong Kong, Hong Kong *Computational Methods and Differential Equations with Applications*

Supervision

Master Students	Jorn Teurlings (jointly with Frans Oliehoek and Mustafa Mert Celikok), Aug, 2025 - *TU Delft, Netherlands* Joep Claes, Aug, 2025 - *TU Delft, Netherlands* David Brouwers (jointly with MN), Oct, 2024 - *TU Delft, Netherlands* Giorgia Bifronte, Aug, 2024 - *TU Delft, Netherlands* Luca Fornaro (jointly with MN), Aug, 2024 - *TU Delft, Netherlands* Tomás Carrondo (jointly with Christa Cuchiero), June, 2024 - *TU Delft, Netherlands* Laurens Chin-A-Pauw, Mar, 2024 - *TU Delft, Netherlands* Felix Lokin (jointly with MN), Sept, 2023 - *TU Delft, Netherlands* Vangelis Nakos, Sept, 2023 - *TU Delft, Netherlands*

Additional Information

2026–	Co-organizer of DIAM Lunch Colloquium - *TU Delft, Netherlands*
Mar 2025	Certificate of University Teaching Qualification - *4TU.Education, Netherlands*
2024 –	Member of the EEMCS Faculty Graduate School PhD Mentor Group - *TU Delft, Netherlands*
Jan 2015	Certificate of Teaching and Learning in Higher Education - *The University of Hong Kong, Hong Kong*
Membership	Bachelier Finance Society, Society for Industrial and Applied Mathematics
Languages	Chinese (native), English (fluent)