Fenghui Yu

Address	HB 7.040, Building 36, Delft Institute of Applied Mathematics, TU Delft, Mekelweg 4, 2628 CD Delft, the Netherlands.	**Email** **Tel.** **Website** **Date of Birth**	fenghui.yu@tudelft.nl +31 6 2543 1978 http://fenghuiyu.github.io December 20, 1992

Positions

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

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

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

Research Visits

Oct–Dec 2024 *FIM (Forschungsinstitut für Mathematik) Visitor*
Department of Mathematics, ETH Zurich, 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

Research Field: Mathematical and Computational Finance
Supervisor: Prof. Wai-Ki Ching
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

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*

Papers

- Felix Lokin and **Fenghui Yu**. *Fill Probabilities in a Limit Order Book with State-Dependent Stochastic Order Flows.* Preprint, 2024.
- **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

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, the Netherlands

Academic Talks

Nov 2024	**Invited talk**, BIRS Workshop on Modeling, Learning and Understanding: Modern Challenges between Financial Mathematics, Financial Technology and Financial Economics - Banff, Canada
July 2024	**Contributed talk**, 12th Bachelier World Congress - Rio de Janeiro, Brazil
June 2024	**Invited talk**, Statistics and Machine Learning in Finance Seminar - University of Oxford, UK
April 2024	**Invited talk**, Recent Advances in Stochastic Control, Machine Learning and Quantitative Finance - Shanghai, China
April 2024	**Invited talk**, International Conference on Computational Finance - Amsterdam, the Netherlands
June 2023	**Invited talk**, 4TU.Applied Mathematics Institutes Summer Event - Delft, the Netherlands
Mar 2023	**Invited talk**, Dutch Mathematical Finance Seminars - TU Delft, the Netherlands
Feb 2023	**Invited talk**, Seminar in Mathematical Finance - McMaster University, Canada

Nov 2022	**Invited talk**, 14th DIAM Research Day - TU Delft, the Netherlands
Oct 2022	**Invited talk**, Finance Research Day - TU Delft, the Netherlands
Oct 2020	**Invited talk**, Seminar of Josef Teichmann's Group - ETH Zurich, Switzerland
Dec 2019	**Invited talk**, Youth Probability and Statistics Forum - Beijing, China
Dec 2019	**Invited talk**, Post/Doctoral Seminar in Mathematical Finance - ETH Zurich, Switzerland
Feb 2018	**Invited talk**, Workshop on Computational Science and Optimization - Hong Kong
Nov 2016	**Contributed talk**, SIAM Conference on Financial Mathematics and Engineering - Austin, USA
Jul 2016	**Contributed talk**, 6th International IMS-FIPS Workshop - Edmonton, Canada
Jun 2016	**Contributed talk**, 11th East Asia SIAM Conference - Macao
Feb 2016	**Contributed talk**, 4th Asian Quantitative Finance Conference - Osaka, Japan

Teaching

(All of the courses were given in English)

Fall 2025 **Fall 2024** **Fall 2023**	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, the Netherlands *Special Topics in Financial Engineering (Machine Learning in Finance)*
Fall 2025 **Fall 2024** **Fall 2023**	**Lecturer**, Delft Institute of Applied Mathematics - TU Delft, the Netherlands *Quantitative Risk Management*
Spring 2022 **Spring 2021**	**Teaching Assistant**, RiskLab - ETH Zurich, 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	David Brouwers (jointly with MN), Oct, 2024 - *TU Delft, the Netherlands* Giorgia Bifronte, Aug, 2024 - *TU Delft, the Netherlands* Luca Fornaro (jointly with MN), Aug, 2024 - *TU Delft, the Netherlands* Tomás Carrondo (jointly with Christa Cuchiero), June, 2024 - *TU Delft, the Netherlands* Laurens Chin-A-Pauw, Mar, 2024 - *TU Delft, the Netherlands* Felix Lokin (jointly with MN), Sept, 2023 - *TU Delft, the Netherlands* Vangelis Nakos, Sept, 2023 - *TU Delft, the Netherlands*

Additional Information

Jan 2015	Certificate of Teaching and Learning in Higher Education - *The University of Hong Kong, Hong Kong*
Referee Service	Automatica, Mathematical Methods of Operations Research, International Journal of Theoretical and Applied Finance
Languages	Chinese (native), English (fluent)