

# 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*

<b>2014–2018</b>	Postgraduate Scholarship - <i>The University of Hong Kong, Hong Kong</i>
<b>2012–2014</b>	First Rank Scholarship - <i>Jilin University, China</i>
<b>2011–2014</b>	Outstanding Undergraduate - <i>Jilin University, China</i>

## Fundings

<b>2025–2027</b>	Strategic Research Initiative of <i>Real-World-Inspired Sequential Decision-Making</i> (joint application), €20,000 - 4TU.AMI, Netherlands
<b>2024–2025</b>	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, 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

<b>Aug 2025</b>	Minisymposium: <i>Theory and Algorithms in Trading and Market Simulation</i> NUS Quantitative Finance Conference - Singapore
<b>July 2024</b>	Minisymposium: <i>Control, Optimization and Market Microstructure</i> 12th Bachelier World Congress - Rio de Janeiro, Brazil
<b>Sept 2023</b>	15th European Summer School in Financial Mathematics - Delft, Netherlands

## Academic Talks

<b>Aug 2025</b>	Summer School of the Dutch Sequential Decision-Making Community - Eindhoven, Netherlands
<b>Aug 2025</b>	NUS Quantitative Finance Conference - Singapore
<b>July 2025</b>	SIAM Conference on Financial Mathematics and Engineering (FM25) - Miami, USA
<b>June 2025</b>	12th General AMaMeF Conference - Verona, Italy

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

## Teaching

(All of the courses were given in English)

<b>Fall 2025</b>	<b>Lecturer</b> , Delft Institute of Applied Mathematics - TU Delft, Netherlands <i>Calculus (for Computer Science Department)</i>
<b>Spring 2025</b>	<b>Lecturer</b> , Delft Institute of Applied Mathematics - TU Delft, Netherlands
<b>Spring 2024</b>	<i>Special Topics in Financial Engineering (Machine Learning in Finance)</i>
<b>Spring 2023</b>	
<b>Spring 2025</b>	<b>Lecturer</b> , Delft Institute of Applied Mathematics - TU Delft, Netherlands
<b>Spring 2024</b>	<i>Quantitative Risk Management</i>
<b>Spring 2023</b>	
<b>Spring 2022</b>	<b>Teaching Assistant</b> , RiskLab - ETH Zürich, Switzerland
<b>Spring 2021</b>	<i>Quantitative Risk Management</i>
<b>Fall 2017</b>	<b>Teaching Assistant</b> , Department of Mathematics - The University of Hong Kong, Hong Kong <i>Discrete Mathematics</i>
<b>Fall 2017</b>	<b>Teaching Assistant</b> , Department of Mathematics - The University of Hong Kong, Hong Kong
<b>Fall 2016</b>	<i>University Mathematics I</i>
<b>Fall 2015</b>	
<b>Spring 2015</b>	<b>Teaching Assistant</b> , Department of Mathematics - The University of Hong Kong, Hong Kong <i>Computational Methods and Differential Equations with Applications</i>

## 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

### 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)