Fenghui Yu

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Birth Date	December 20, 1992

Positions

Aug 2022-Present *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 *Postdoctoral Fellow*
- Department of Mathematics, The University of Hong Kong, Hong Kong

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
Performance: Outstanding Class (top 5%)

Research Interests

- Quantitative Methods in Risk Management, Finance and Actuarial Science
- Applied Probability, Stochastic Modeling and Stochastic Optimal Control
- Machine Learning, Data-driven Innovation and their Applications

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*
2011	Second Rank Scholarship - *Jilin University, China*

Papers

- **Feng-Hui Yu**, Wai-Ki Ching, Chu-Fang Wu and Jia-Wen Gu. *Optimal Pairs Trading Strategies: a Stochastic Mean-Variance Approach.* Revision, Journal of Optimization Theory and Applications, 2022.
- 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.

Conference/Workshop/Research Experience

Oct 2020	**Invited talk**, Seminar of Josef Teichmann's Group - ETH Zurich, Switzerland
Dec 2019	**Invited talk**, Youth Probability and Statistic Forum - Beijing, China
Dec 2019	**Invited talk**, Post/Doctoral Seminar in Mathematical Finance - ETH Zurich, Switzerland
Feb 2018	**Contributed poster**, Actuarial and Financial Mathematics Conference: Interplay between Finance and Insurance - Brussels, Belgium
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**, The 6th International IMS-FIPS Workshop - Edmonton, Canada
Jun 2016	**Contributed talk**, The 11th East Asia SIAM Conference - Macao
May 2016	**Participant**, International Conference on Applied Mathematics - Hong Kong
Feb 2016	**Contributed talk**, The 4th Asian Quantitative Finance Conference - Osaka, Japan
Aug 2015	**Academic Visit**, Department of Mathematical Sciences, University of Copenhagen - Copenhagen, Denmark

Other Scientific Activities

Sept 2019-2021	Risk Day - RiskLab, ETH Zurich, Switzerland
Sept 2020	13th European Summer School in Financial Mathematics - Vienna(online), Austria
Jun-Jul 2016	PIMS Summer School in Mathematical Finance - University of Alberta, Canada

Teaching Experience

(All of the courses are given in English)

Feb-May 2021
Feb-May 2022
Teaching Assistant, RiskLab - ETH Zurich, Switzerland
Course: Quantitative Risk Management

Sep-Nov 2017
Teaching Assistant, Department of Mathematics - The University of Hong Kong, Hong Kong
Course: Discrete Mathematics

Sep-Nov 2017
Sep-Nov 2016
Sep-Nov 2015
Teaching Assistant, Department of Mathematics - The University of Hong Kong, Hong Kong
Course: University Mathematics I

Jan-May 2015
Teaching Assistant, Department of Mathematics - The University of Hong Kong, Hong Kong
Course: Computational Methods and Differential Equations with Applications

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
Programming	MATLAB, Python
Language	Chinese (native), English (fluent)