Fenghui Yu

Address	HG F 42.1, RiskLab, Department of Mathematics, ETH Zurich, 8092, Zurich, Switzerland.	**Email** **Tel.** **Website** **Birth Date**	fenghui.yu@math.ethz.ch +41 76 520 9639 http://fenghuiyu.github.io December 20, 1992

Positions

Jun 2019-Present *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 Optimal Stochastic Control
- Machine Learning, Data-driven Innovation and their Applications in Finance and Insurance

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, 2021.

- 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.
- **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
Aug 2020	13th European Summer School in Financial Mathematics - Vienna, 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	**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)