

# Fenghui Yu

---

<b>Address</b>	HG F 42.1, RiskLab, Department of Mathematics, ETH Zurich, 8092, Zurich, Switzerland.	<b>Email</b>	maggie.yufenghui@gmail.com
		<b>Tel.</b>	+852 5986 4324
		<b>Website</b>	<a href="http://fenghuiyu.github.io">http://fenghuiyu.github.io</a>
		<b>Birth Date</b>	December 20, 1992

## Working Experience

**Jun 2019-Present** *Postdoc*  
- RiskLab, Department of Mathematics, ETH, Zurich, Switzerland

**Sept 2018-May 2019** *Postdoctoral Fellow*  
- Department of Mathematics, The University of Hong Kong, Hong Kong

## Education

**Sept 2014-Aug 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., Science; B.S., Economics - Jilin University, China  
*Major: Computational Mathematics; Minor: Finance and Financial Management*  
*Major GPA: 3.85 over 4.00; Overall GPA: 3.76 over 4.00*  
*Performance Ranking: top 3 over 78*  
*Outstanding Class(17 selected from 78, top 2 over 17)*

## Research Interests

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

## Honors and Awards

<b>2018</b>	Scientific Research Network (WOG) Grant - <i>Research Foundation Flanders (FWO), Belgium</i>
<b>2016, 2018</b>	Conference Grant for Research Postgraduate Students - <i>The University of Hong Kong, Hong Kong</i>
<b>2016</b>	SIAM Student Travel Award - <i>SIAM, USA</i>
<b>2016</b>	Doris Chen Postgraduate Travel Grant - <i>The University of Hong Kong, Hong Kong</i>
<b>2016</b>	International Student Travel Award - <i>PIMS, Canada</i>
<b>2014-2018</b>	HKU Foundation Postgraduate Fellowship - <i>The University of Hong Kong, Hong Kong</i>
<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>
<b>2011</b>	Second Rank Scholarship - <i>Jilin University, China</i>

## Papers

- **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.
- **Feng-Hui Yu**, Jie-Jun Lu, Jia-Wen Gu and Wai-Ki Ching. *Modeling Credit Risk with Hidden Markov Default Intensity*. Accepted for publication in Computational Economics, available online, 2018.
- Dong-Mei Zhu, Jia-Wen Gu, **Feng-Hui Yu**, Wai-Ki Ching and Tak-Kuen Siu. *On Pricing and Hedging Basket Credit Derivatives with Dependent Structure*. Revision submitted to IMA Journal of Management Mathematics, 2018.
- Dong-Mei Zhu, Jia-Wen Gu, **Feng-Hui Yu**, Tak-Kuen Siu and Wai-Ki Ching. *Optimal Pairs Trading with Dynamic Mean-Variance*. Preprint, 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**, Wai-Ki Ching, Jia-Wen Gu and Chu-Fang Wu. *Optimal Mean-Variance Pairs Trading Strategies*. Preprint, 2019.
- **Feng-Hui Yu**, Wai-Ki Ching, Tak-Kuen Siu. *Multi-Period Optimal Mean-reverting Spread Trading Strategies with Hidden Markovian Regime Switching*. In preparation.

## Conference/Workshop/Research Experience

<b>Feb 2018</b>	<b>Contributed poster</b> , Actuarial and Financial Mathematics Conference: Interplay between Finance and Insurance - Brussels, Belgium
<b>Feb 2018</b>	<b>Contributed talk</b> , Workshop on Computational Science and Optimization - Hong Kong
<b>Nov 2016</b>	<b>Contributed lecture</b> , SIAM Conference on Financial Mathematics and Engineering - Austin, Texas, USA
<b>Jul 2016</b>	<b>Contributed talk</b> , The Sixth International IMS-FIPS Workshop - Edmonton, Canada
<b>Jun 2016</b>	<b>Contributed talk</b> , The 11th East Asia SIAM Conference - Macao
<b>May 2016</b>	<b>Participant</b> , International Conference on Applied Mathematics - Hong Kong
<b>Feb 2016</b>	<b>Contributed talk</b> , The Fourth Asian Quantitative Finance Conference - Osaka, Japan
<b>Aug 2015</b>	<b>Academic Visit</b> , Department of Mathematical Sciences, University of Copenhagen - Copenhagen, Denmark
<b>2013-2014</b>	<b>Student Researcher</b> , College Base Program - Jilin University, China
<b>2012-2013</b>	<b>Group Leader</b> , College Student Innovation Research Training Program - Jilin University, China
<b>Jan-Feb 2013</b>	<b>Intern</b> , Agricultural Bank of China, Changde Branch - Changde, China
<b>Aug 2012</b>	<b>Analyst</b> , Mathematics Contest in Modeling - China

## Other Scientific Activities

<b>Jun-Jul 2016</b>	PIMS Summer School in Mathematical Finance - University of Alberta, Canada
<b>Jul 2014</b>	International Summer School on Scientific Computing - Chinese Academy of Sciences, China
<b>Jul 2014</b>	Summer School on Applied Mathematics - Peking University, China
<b>Jul 2013</b>	Summer Program for Advanced Interdisciplinary Studies - Peking University, China
<b>Jul 2013</b>	Annual Conference held by Academy for Advanced Interdisciplinary Studies - Peking University, China
<b>Jul 2013</b>	Summer Study Camp for Mathematics - Fudan University, China

## Teaching Experience

(All of the courses are given in English)

- |   |   |
|---|---|
| <b>Sep-Nov 2017</b>   | <b>Teaching Assistant</b> , Department of Mathematics,<br>- The University of Hong Kong, Hong Kong<br><i>Course: Discrete Mathematics</i>   |
| <b>Sep-Nov 2017</b><br><b>Sep-Nov 2016</b><br><b>Sep-Nov 2015</b> | <b>Teaching Assistant</b> , Department of Mathematics,<br>- The University of Hong Kong, Hong Kong<br><i>Course: University Mathematics I</i>   |
| <b>Jan-May 2015</b>   | <b>Teaching Assistant</b> , Department of Mathematics,<br>- The University of Hong Kong, Hong Kong<br><i>Course: Computational Methods and Differential Equations with Applications</i> |

## Additional Information

- |                    |   |
|--------------------|---|
| <b>Jan 2015</b>    | Certificate of Teaching and Learning in Higher Education<br>- <i>The University of Hong Kong, Hong Kong</i> |
| <b>Programming</b> | MATLAB, Python, Pandas  |

## Referees

### **Prof. Wai-Ki CHING**

Department of Mathematics,  
The University of Hong Kong, Hong Kong.  
Email: wching@hku.hk

### **Prof. Tak-Kuen SIU**

Department of Actuarial Studies and Center for Financial Risk,  
Faculty of Business and Economics, Macquarie University, Sydney, NSW 2109, Australia.  
Email: ktksiu2005@gmail.com

### **Prof. Dongmei ZHU**

School of Economics and Management,  
Southeast University, China.  
Email: zhudongmei@seu.edu.cn

### **Prof. Guangyue HAN** (address teaching)

Department of Mathematics,  
The University of Hong Kong, Hong Kong.  
Email: ghan@hku.hk