# Fenghui Yu

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#### **Education**

Sept 2014-Aug 2018Ph.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)

## **Working Experience**

Sept 2018-Present Postdoctoral Fellow

- Department of Mathematics, The University of Hong Kong, Hong Kong

#### **Research Interests**

- Quantitative Methods in Finance, Actuarial Sciences and Risk Management
- · Stochastic Modeling and Optimal Portfolio Management
- Applied Probability, Applied Data Science, Machine Learning and its Application
- Computational and Data-driven Innovation in Interdisciplinary Science

#### **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 - <i>SIAM, USA</i>
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, 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, online available, 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, 2018.
- 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, 2018.
- Feng-Hui Yu, Wai-Ki Ching, Jia-Wen Gu and Tak-Kwong Wong. *Optimal Mean-Variance Pairs Trading Strategies*. In preparation, 2018.

# Conference/Workshop/Research Experience

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

## **Other Scientific Activities**

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

# **Teaching Experience**

(All of the courses are given in English)

**Sep-Nov 2017 Teaching Assistant**, Department of Mathematics,

- The University of Hong Kong, Hong Kong

Course: Discrete Mathematics

**Sep-Nov 2017 Teaching Assistant**, Department of Mathematics,

Sep-Nov 2016 - The University of Hong Kong, Hong Kong

**Sep-Nov 2015** *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

**Programming** MATLAB, Python, Pandas