

Fenghui Yu

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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

Honors and Awards

2018	Scientific Research Network (WOG) Grant - <i>Research Foundation Flanders (FWO), Belgium</i>
2016, 2018	Conference Grant for Research Postgraduate Students - <i>The University of Hong Kong, Hong Kong</i>
2016	SIAM Student Travel Award - <i>SIAM, USA</i>
2016	Doris Chen Postgraduate Travel Grant - <i>The University of Hong Kong, Hong Kong</i>
2016	International Student Travel Award - <i>PIMS, Canada</i>
2014-2018	HKU Foundation Postgraduate Fellowship - <i>The University of Hong Kong, Hong Kong</i>
2014-2018	Postgraduate Scholarship - <i>The University of Hong Kong, Hong Kong</i>
2012-2014	First Rank Scholarship - <i>Jilin University, China</i>
2011-2014	Outstanding Undergraduate - <i>Jilin University, China</i>
2011	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*. Computational Economics, 54(3), 1213-1229, 2019.
- 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, 2020.
- Dong-Mei Zhu, Jia-Wen Gu, **Feng-Hui Yu**, Tak-Kuen Siu and Wai-Ki Ching. *Optimal Pairs Trading with Dynamic Mean-Variance Objective*. Revision to Mathematical Methods of Operations Research, 2020.
- 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, Chu-Fang Wu and Jia-Wen Gu. *Optimal Pairs Trading Strategies: a stochastic Mean-Variance approach*. Preprint, 2020.
- **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

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	Contributed talk , Workshop on Computational Science and Optimization - Hong Kong
Nov 2016	Contributed talk , 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	Academic Visit , Department of Mathematical Sciences, University of Copenhagen - Copenhagen, Denmark
2013-2014	Student Researcher , College Base Program - Jilin University, China
2012-2013	Group Leader , 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 <i>Course: Discrete Mathematics</i>
Sep-Nov 2017 Sep-Nov 2016 Sep-Nov 2015	Teaching Assistant , Department of Mathematics, - The University of Hong Kong, Hong Kong <i>Course: University Mathematics I</i>
Jan-May 2015	Teaching Assistant , Department of Mathematics, - The University of Hong Kong, Hong Kong <i>Course: Computational Methods and Differential Equations with Applications</i>

Additional Information

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