

Fenghui Yu

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| | | Birth Date | 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

Honors and Awards

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| 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 Method 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, 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

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| 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

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| 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)

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| 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

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