

Qikun Xiang

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EDUCATION

2019 – PRESENT PhD in Mathematics, Nanyang Technological University, Singapore

SUPERVISOR: Nanyang Assistant Professor Ariel Neufeld

2017 – 2019 Master of Science in Statistics with distinction, Swiss Federal Institute of Technology in Zurich (ETH Zurich), Switzerland

APPLIED AREA: Finance and Insurance

CUMULATIVE GPA: 5.90 (on a 6-point scale)

2013 – 2017 B.Eng. in Computer Science with First Class Honours, Nanyang Technological University, Singapore

SPECIALIZATION: Intelligent Systems

CUMULATIVE GPA: 4.84 (on a 5-point scale)

HONOURS AND AWARDS

2022 Finalist for the Best Student Paper to: Numerical method for approximately optimal solutions of two-stage distributionally robust optimization with marginal constraints

2021 Student Travel Award for the SIAM Conference on Financial Mathematics and Engineering (FM21)

2017 Information Technology Management Association Gold Medal Cum Book Prize (awarded by the School of Computer

Science and Engineering, Nanyang Technological University for exceptional performance in the Final Year Project)

2014 – 2016

Dean's List (awarded by the School of Computer Science and Engineering, Nanyang Technological University to the top 5% of the cohort)

PUBLICATIONS AND PREPRINTS

- Ariel Neufeld and Qikun Xiang, Numerical method for approximately optimal solutions of two-stage distributionally robust optimization with marginal constraints. Preprint, arXiv:2205.05315, 2022 (submitted).
- Shunan Sheng, Qikun Xiang, Ido Nevat, and Ariel Neufeld, Binary Spatial Random Field Reconstruction from Non-Gaussian Inhomogeneous Time-series Observations. Preprint, arXiv:2204.03343, 2022 (submitted).
- Ariel Neufeld and Qikun Xiang, Numerical method for feasible and approximately optimal solutions of multi-marginal optimal transport beyond discrete measures. Preprint, arXiv:2203.01633, 2022 (submitted).
- Ariel Neufeld, Antonis Papapantoleon, and Qikun Xiang, Model-free bounds for multi-asset options using option-implied information and their exact computation. *Management Science*, ePub ahead of print, 2022.
- Qikun Xiang, Ariel Neufeld, Gareth W. Peters, Ido Nevat, and Anwitaman Datta, A Bonus-Malus Framework for Cyber Risk Insurance and Optimal Cybersecurity Provisioning. Preprint, arXiv:2102.05568, 2021 (submitted).
- Qikun Xiang, Ido Nevat, and Gareth W. Peters, "Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks," in *IEEE Transactions on Signal Processing*, vol. 68, pp. 4336-4351, 2020, doi: 10.1109/TSP.2020.3011023.
- Qikun Xiang, Jie Zhang, Ido Nevat, and Pengfei Zhang, A Trust-based Mixture of Gaussian Processes Model for Reliable Regression in Participatory Sensing, 26th International Joint Conference on Artificial Intelligence (IJCAI), 2017.
- Qikun Xiang, Jie Zhang, Ido Nevat, and Pengfei Zhang, A Trust-based Mixture of Gaussian Processes Model for Robust Participatory Sensing, 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2017 (extended abstract).

TALKS AT INTERNATIONAL CONFERENCES

2022	European Conference on Stochastic Optimization - Computational Management Science Conference (ECSO-CMS), Venice, Italy 11th World Congress of the Bachelier Finance Society (virtual) SIAM Conference on Uncertainty Quantification (UQ22), Atlanta, Georgia, USA
2021	24th International Congress on Insurance: Mathematics and Economics (IME) (virtual) SIAM Conference on Financial Mathematics and Engineering (FM21) (virtual) XXII Workshop on Quantitative Finance (virtual)
2020	Bernoulli-IMS One World Symposium 2020 (virtual)
2017	26th International Joint Conference on Artificial Intelligence (IJCAI), Melbourne, Australia

TEACHING EXPERIENCE

2021	Teaching assistant of the undergraduate course Discrete Mathematics MH1812 Teaching assistant of the undergraduate course Real Analysis I MH3100
2020	Teaching assistant of the undergraduate course Discrete Mathematics MH1812

SKILLS

PROGRAMMING SKILLS MATLAB, Java

LANGUAGES Chinese Mandarin (native), English (TOEFL iBT 115)