# Qikun Xiang

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## EDUCATION

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| 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

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| 2023 | Student Travel Award for the SIAM Conference on Optimization (OP23) |
| 2022 | Finalist for the Best Student Paper to: Numerical method for approximately optimal solutions of two-stage distributionally robust optimization with marginal constraints |
| | Student Travel Award for the SIAM Conference on Uncertainty Quantification (UQ22) |

| 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

o Ariel Neufeld, Antonis Papapantoleon, and Qikun Xiang, Model-free bounds for multi-asset options using option-implied information and their exact computation. *Management Science*, vol. 69, no. 4, pp. 2051–2068, 2023, doi: 10.1287/mnsc.2022.4456.

o 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).

o 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).

o 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).

o 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).

o 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.

o 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.

o 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

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| 2022 | SIAM Conference on Mathematics of Data Science (MDS22), San Diego, California, USA (attended virtually) |
| | 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

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| 2022 | Teaching assistant of the undergraduate course Discrete Mathematics MH1812 |
| 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)