Fang Kong (孔芳)

Email: fangkong@sjtu.edu.cn
Homepage: https://fangkongx.github.io
Research Interests: Bandit algorithms and reinforcement learning theory

Education

Shanghai Jiao Tong University (SJTU), Shanghai, China 09/2020-present
John Hopcroft Center for Computer Science Ph.D. candidate
Advisor: Prof. Shuai Li

Shandong University (SDU), Jinan, China 09/2016-06/2020
Bachelor's Degree in Software Engineering (Rank 1/318)

Publications (* denotes equal contribution)

1. Yu Xia*, **Fang Kong***, Tong Yu, Liya Guo, Ryan A. Rossi, Sungchul Kim, Shuai Li, "Convergence-Aware Online Model Selection with Time-Increasing Bandits", Accepted by the Web Conference (WWW), 2024.
2. **Fang Kong**, Shuai Li, "Improved Bandits in Many-to-one Matching Markets with Incentive Compatibility", Accepted by the 38th Annual AAAI Conference on Artificial Intelligence (AAAI), 2024.
3. **Fang Kong***, Xiangcheng Zhang*, Baoxiang Wang, Shuai Li, "Improved Regret Bounds for Linear Adversarial MDPs via Linear Optimization", Transactions on Machine Learning Research (TMLR), 2024.
4. **Fang Kong**, Canzhe Zhao, Shuai Li, "Best-of-three-worlds Analysis for Linear Bandits with Follow-the-regularized-leader Algorithm", Proceedings of 36th Conference on Learning Theory (COLT), 2023. (The First COLT Publication at SJTU)
5. **Fang Kong**, Jize Xie, Baoxiang Wang, Tao Yao, Shuai Li. "Online Influence Maximization under Decreasing Cascade Model", Proceedings of the 22nd International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2023.
6. Yichi Zhou, **Fang Kong**, Shuai Li, "Stochastic No-Regret Learning for General Games with Variance Reduction", International Conference on Learning Representations (ICLR), 2023.
7. **Fang Kong**, Shuai Li, "Player-optimal Stable Regret for Bandit Learning in Matching Markets", Proceedings of the 2023 Annual ACM-SIAM Symposium on Discrete Algorithms (SODA). 2023.
8. **Fang Kong**, Yichi Zhou, Shuai Li, "Simultaneously Learning Stochastic and Adversarial Bandits with General Graph Feedback", International Conference on Machine Learning (ICML), 2022.
9. **Fang Kong**, Junming Yin, Shuai Li, "Thompson Sampling for Bandit Learning in Matching Markets", International Joint Conference on Artificial Intelligence (IJCAI), 2022.
10. **Fang Kong**, Yueran Yang, Wei Chen, Shuai Li, "The Hardness Analysis of Thompson Sampling for Combinatorial Semi-bandits with Greedy Oracle", Proceedings of the Conference on Neural Information Processing Systems (NeurIPS), 2021.

11. **Fang Kong**, Yueran Yang, Wei Chen, Shuai Li, “Combinatorial Online Learning based on Optimizing Feedbacks (in Chinese)”, Big Data Research, 2021.
12. Shuai Li, **Fang Kong**, Kejie Tang, Qizhi Li, Wei Chen, “Online Influence Maximization under Linear Threshold Model”, Proceedings of the Conference on Neural Information Processing Systems (NeurIPS), 2020.
13. **Fang Kong**, Qizhi Li, Shuai Li, “A Survey on Online Influence Maximization” (in Chinese), Computer Science, 2020.

Internships and Research Experiences

WXG, Tencent 07/2022-present
As a member of the Tencent Rhino-Bird Research Elite Program

The Chinese University of Hong Kong 02/2023-08/2023
Visiting student of Prof. John C.S. Lui

Computational Learning Theory Group, Microsoft Research Asia (MSRA) 12/2021-05/2022
Mentor: Dr. Yichi Zhou

Alibaba DAMO Academy 06/2021-08/2021
Mentor: Dr. Xue Wang and Dr. Tao Yao

Talks

“Best-of-three-worlds Analysis for Linear Bandits with Follow-the-regularized-leader Algorithm”
Female Forum in IJTCS-FAW, August 2023, Macau, China

“Online Influence Maximization under Decreasing Cascade Model”
AAMAS, June 2023, London, UK

“Player-optimal Stable Regret for Bandit Learning in Matching Markets”
SODA, January 2023, Online
Seminar in School of Data Science, CUHK-SZ, November 2022, Shenzhen, China

“The Hardness Analysis of Thompson Sampling for Combinatorial Semi-bandits with Greedy Oracle”
Outstanding Doctoral Forum in John Hopcroft Center, SJTU, January 2022, Shanghai, China

“Online Influence Maximization under Linear Threshold Model”
Outstanding Doctoral Forum in John Hopcroft Center, SJTU, December 2020, Shanghai, China

Awards

1. Baidu Scholarship (only 10 recipients worldwide), 2024

2. National Scholarship (for Ph.D. students), from the ministry of Education of China, 2023, 2022 (only 0.2% each year)
3. AAMAS Student Scholarship, 2023
4. Award of Excellence in Stars of Tomorrow Internship Program, Microsoft Research Asia, 2022
5. First Prize for Outstanding Ph.D. Student in John Hopcroft Center, 2022
6. Wu Wen Jun Honorary Doctoral Scholarship, 2020
7. Outstanding Graduates of Shandong Province (3%), 2020
8. Honors Bachelor of Shandong University (<5%), 2020
9. Outstanding Undergraduate Thesis of Shandong University (2%), 2020
10. National Scholarship (for undergraduate students), from the ministry of Education of China, 2018,2017 (only 0.2% each year)
11. First-class scholarship for outstanding students in Shandong University (5%), 2018,2017

Professional Services

Conference Reviewer for

International Conference on Machine Learning (ICML) 2023-2022
Conference on Neural Information Processing Systems (NeurIPS) 2023-2021
The Web Conference (WWW) 2024

Teaching Assistantships

AI3601 Reinforcement Learning (Undergraduate), SJTU,	Spring 2023
CS3317 Artificial Intelligence (Undergraduate), SJTU,	Fall 2022
CS445 Combinatorics (Undergraduate), SJTU	Fall 2021
CS410 Artificial Intelligence (Undergraduate), SJTU	Fall 2020