

# Fang Kong (孔芳)

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Research Interests: Bandit theory and reinforcement learning theory

## Education

### Shanghai Jiao Tong University

John Hopcroft Center for Computer Science

Advisor: Prof. Shuai Li

09/2020-present

Ph.D. candidate

### Shandong University

Bachelor's Degree in Software Engineering (Rank 1/318)

09/2016-06/2020

## Publications

1. **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.
2. **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.
3. Yichi Zhou, **Fang Kong**, Shuai Li, "Stochastic No-Regret Learning for General Games with Variance Reduction", International Conference on Learning Representations (ICLR), 2023.
4. **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.
5. **Fang Kong**, Yichi Zhou, Shuai Li, "Simultaneously Learning Stochastic and Adversarial Bandits with General Graph Feedback", International Conference on Machine Learning (ICML), 2022.
6. **Fang Kong**, Junming Yin, Shuai Li, "Thompson Sampling for Bandit Learning in Matching Markets", International Joint Conference on Artificial Intelligence (IJCAI), 2022.
7. **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.
8. **Fang Kong**, Yueran Yang, Wei Chen, Shuai Li, "Combinatorial Online Learning based on Optimizing Feedbacks (in Chinese)", Big Data Research, 2021.
9. 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.
10. **Fang Kong**, Qizhi Li, Shuai Li, "A Survey on Online Influence Maximization" (in Chinese), Computer Science, 2020.

## **Internships and Research Experiences**

<b>WXG, Tencent</b> As a member of the Tencent Rhino-Bird Research Elite Program	07/2022-present
<b>The Chinese University of Hong Kong</b> Visiting student of Prof. John C.S. Lui	02/2023-08/2023
<b>Computational Learning Theory Group, Microsoft Research Asia (MSRA)</b> Mentor: Dr. Yichi Zhou	12/2021-05/2022
<b>Alibaba DAMO Academy</b> Mentor: Dr. Xue Wang and Dr. Tao Yao	06/2021-08/2021

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

10. First-class scholarship for outstanding students in Shandong University, 2018,2017

### **Professional Services**

Conference Reviewer for

International Conference on Machine Learning (ICML) 2023-2022

Conference on Neural Information Processing Systems (NeurIPS) 2023-2021

### **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