

Tao Xiao

Room 524, No.3 SEIEE Buildings
Shanghai Jiao Tong University
800 Dongchuan Road, Minhang
Shanghai, China

Phone: +86 13162576896
Email: xt_1992@sjtu.edu.cn
Homepage: <http://taoxiao1992.github.io>

Education

| | |
|---|--|
| Shanghai Jiao Tong University Ph.D in Computer Science Advisors: Prof. Xiaotie Deng and Prof. Pinyan Lu Thesis: Mechanism Design: Establish Theory from Practice. | 2013/09-2020/06(expected) Shanghai, China |
| Shanghai Jiao Tong University B.E. in Computer Science | 2009/09-2013/07 Shanghai, China |
| No.2 Middle School of Jingdezhen, Jiangxi. | 2006/09-2009/06 |

Research Interest

I have a broad interested in theoretical computer science, economics and their applications. Currently my focus is on algorithmic mechanism design, social choice theory and online auction.

Working Papers

Learning Reserve Prices in Second-Price Auctions*
Yaonan Jin, Pinyan Lu and Tao Xiao

Publications ¹

| | |
|---|---------|
| Size Relaxing Approximation Algorithms for Committee Selection Tao Xiao and Sujoy Sikdar AAMAS'20 | [CCF B] |
| On the complexity of Sequential Posted Pricing Tao Xiao , Zhengyang Liu and Wenhan Huang AAMAS'20 | [CCF B] |
| On the Complexity of Tournament Bundling solutions with Social Choice Tao Xiao Frontiers in Computer Science, 2020. | [CCF C] |
| Private Data Manipulation in Optimal Sponsored Search Auctions* Xiaotie Deng, Tao Lin and Tao Xiao WWW'20(short paper) | [CCF A] |

¹According to tradition in Theoretical Computer Science area, all authors are listed in alphabetical order. Papers marked with * follows this tradition.

- Tight Approximation Ratio of Anonymous Pricing***
Yaonan Jin, Pinyan Lu, Qi Qi, Zhihao Tang and Tao Xiao
STOC'19 [CCF A]
- Tight Revenue Gaps among Simple Mechanisms***
Yaonan Jin, Pinyan Lu, Zhihao Tang and Tao Xiao
SICOMP, 2020 [CCF A]
A primary conference version appears in SODA'19 [CCF A]
- Nearly tight bounds for sandpile transience on the grid***
David Durfee, Matthew Fahrbach, Yu Gao and Tao Xiao
SODA'18 [CCF A]
- Learn to Play Maximum Revenue Auction***
Xiaotie Deng, Tao Xiao and Keyu Zhu
IEEE Transactions on Cloud Computing 2017.
- Liquid Welfare Maximization in Auctions with Multiple Items***
Pinyan Lu and Tao Xiao
SAGT'17
- Improved Efficiency Guarantees in Auctions with Budgets***
Pinyan Lu and Tao Xiao
EC'15

Research Experiences

- Visiting Student** 2019/4-present
CFCS, Peking University Beijing, China
Host: Prof. Xiaotie Deng
Topic: Learn to play maximum revenue auction. Online auction with budgets.
- Visiting Student** 2018/10-2019/3
ITCS, Shanghai University of Finance and Economics Shanghai, China
Host: Prof. Pinyan Lu
Topic: Understanding the power and limit of simple mechanisms.
- Visiting Scholar** 2017/10-2018/10
McGill University Montreal, QC, Canada
Host: Prof. Yang Cai
Topic: Complexity of mechanism design. Simple mechanism with budget.
- Visiting Student** 2016/06-2017/10
ITCS, Shanghai University of Finance and Economics Shanghai, China
Host: Prof. Pinyan Lu
Topic: Revenue gaps among simple mechanisms.
- Research Intern** 2014/01-2014/04
Microsoft Research Asia Shanghai, China
Mentor: Dr. Pinyan Lu
Topic: Welfare maximization in auctions with budgets.

Research Intern

HP Labs China

Mentor: Dr. Zhiyong Shen

Topic: Network latency estimation and prediction.

2012/07-2013/02

Beijing, China

Teaching Assistants

Project Workshop of Database Design

Spring 2013

Game Theory and Mechanism Design *by Jing Chen*

Summer 2013

Automata Theory *by John Hopcroft*

Winter 2014

Approximation Algorithms *by Ning Chen*

Summer 2014

Probability and Computing *by Yitong Yin*

Summer 2015

Spatial and Temporal Data Analysis *by Yu Zheng*

Summer 2015

Algorithms and Complexity *by Dominik Scheder*

Fall 2015

Algorithms and Complexity *by Dominik Scheder*

Fall 2016

Computer Science Theory in the Information Age *by John Hopcroft*

Winter 2016

Talks**Mechanism Design Through the Lens of Approximation.**

Zhuhai Forum, Sun Yat-sen University

June 1 2019

Guangzhou, Guangdong, China

On the Complexity of Sequential Posted Pricing.

International Frontiers of Algorithmics (FAW) 2019

May 2 2019

Sanya, Hainan, China

Welfare Maximization in Auctions with Budgets.

Bellairs Workshop on Algorithmic Game Theory

Apr 10 2018

Barbados

Welfare Maximization in Auctions with Budgets.

Theory lunch at McGill University

Nov 9 2018

Montreal, QC, Canada

Welfare Maximization in Auctions with Budgets.

China Theory Week 2017

Jul 19 2017

Shanghai, China

Improved Efficiency Guarantees in Auctions with Budgets.

Conference talk at ACM conference on Economics and Computation (EC) 2015

Jun 18 2015

Portland, OR, USA

Improved Efficiency Guarantees in Auctions with Budgets.

CICGTA 2014

Dec 12 2014

Shanghai, China

Honors and Awards*Silver Medal* in Chinese Mathematical Olympiad

2009/01

Activities

China Theory Week 2015.
Serving as main contact to organize this event.

2015/08
Shanghai, China

CICGTA 2014
Serving as volunteer in this event.

2014/12
Shanghai, China

Last updated: May 19, 2020