

Tao Xiao

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Education

Shanghai Jiao Tong University Ph.D in Computer Science Advisors: Prof. Xiaotie Deng and Prof. Pinyan Lu	2013/09-present 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'm interested in theoretical computer science and its applications. Currently my focus is on algorithmic mechanism design and its applications.

Working Papers

Size Relaxing Approximation Algorithms for Committee Selection
Joint work with Sujoy Sikdar, Lirong Xia

On the complexity of Sequential Posted Pricing
Joint work with Zhengyang Liu

Publications

Tight Approximation Ratio of Anonymous Pricing
Joint work with Yaonan Jin, Pinyan Lu, Qi Qi and Zhihao Tang
STOC'19

Tight Revenue Gaps among Simple Mechanisms
Joint work with Yaonan Jin, Pinyan Lu and Zhihao Tang
SODA'19

Nearly tight bounds for sandpile transience on the grid
Joint work with David Durfee, Matthew Fahrbach and Yu Gao
SODA'18

Learn to Play Maximum Revenue Auction
Joint work with Xiaotie Deng and Keyu Zhu
IEEE Transactions on Cloud Computing (2017).

Liquid Welfare Maximization in Auctions with Multiple Items

Joint work with Pinyan Lu

SAGT'17**Improved Efficiency Guarantees in Auctions with Budgets**

Joint work with Pinyan Lu

EC'15

Research Experiences

Visiting Scholar

McGill University

Host: Prof. Yang Cai

Topic: Complexity of mechanism design. Simple mechanism with private budget.

2017/10-2018/10

Montreal, QC, Canada

Visiting Student

ITCS, Shanghai University of Finance and Economics

Host: Prof. Pinyan Lu

Topic: Revenue gaps among simple mechanisms.

2016/06-2017/10

Shanghai, China

Research Intern

Microsoft Research Asia

Mentor: Dr. Pinyan Lu

Topic: Welfare maximization in auctions with budgets.

2014/01-2014/04

Shanghai, China

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

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 2015	Jun 18 2015 Portland, OR, USA
Improved Efficiency Guarantees in Auctions with Budgets. CICGTA 2014	Dec 12 2014 Shanghai, China

Honors and Awards

<i>Silver Medal</i> in Chinese Mathematical Olympiad	2009/01
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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