

Yingkai Li

CONTACT INFORMATION	AS2 05-21 1 Arts Link, Singapore 117568	yk.li@nus.edu.sg https://yingkai-li.github.io Last updated: Apr 2025
RESEARCH INTERESTS	mechanism design, information design, microeconomic theory, algorithmic game theory	
EMPLOYMENT	Assistant Professor (Presidential Young Professor) in Economics, National University of Singapore	2024 -
	Postdoc Associates, Cowles Foundation for Research in Economics and Department of Computer Science, Yale University	2022 - 2024
	Research Intern, Microsoft Research	Jun to Aug 2020, 2021
EDUCATION	Northwestern University, Evanston, IL, USA Ph.D., Computer Science Advisor: Jason D. Hartline	June 2022
	Stony Brook University, Stony Brook, NY, USA M.S., Computer Science	May 2018
	Shanghai Jiaotong University, Shanghai, China B.S., Computer Science	June 2015
AWARDS	Northwestern Terminal Year Fellowship	2021
WORKING PAPERS	<ol style="list-style-type: none">1. Implementing Evidence Acquisition: Time Dependence in Contracts for Advice. <i>with Jonathan Libgober</i>2. Managing Persuasion Robustly: The Optimality of Quota Rules. <i>with Dirk Bergemann and Tan Gan</i>3. Screening Signal-Manipulating Agents via Contests. <i>with Xiaoyun Qiu</i>4. Simple Mechanisms for Agents with Non-linear Utilities. <i>with Yiding Feng and Jason Hartline</i>5. Mechanism Design with Endogenous Principal Learning. <i>with Daniel Clark</i>6. Scale-robust Auctions. <i>with Jason Hartline and Aleck Johnsen</i>7. Information Acquisition Towards Unanimous Consent. <i>with Boli Xu</i>8. Dynamics and Contracts for an Agent with Misspecified Beliefs. <i>with Argyris Oikonomou</i>9. Exploration and Incentivizing Participation in Randomized Trials. <i>with Alex Slivkins</i>	

10. Multi-Project Contracts.
with Tal Alon, Matteo Castiglioni, Junjie Chen, Tomer Ezra and Inbal Talgam-Cohen
11. Competition Complexity in Multi-item Auctions: Beyond VCG and Regularity
with Hedyeh Beyhaghi, Linda Cai, Yiding Feng and Matthew Weinberg
12. Misspecified Beliefs about Time Lags.
with Harry Pei

JOURNAL
PUBLICATIONS

1. Nearly Minimax-Optimal Regret for Linearly Parameterized Bandits.
with Yining Wang and Yuan Zhou, Transactions on Information Theory 2024
2. Your College Dorm and Dormmates: Fair Resource Sharing with Externalities.
with Jiarui Gan and Bo Li, Journal of Artificial Intelligence Research 2023
3. Bayesian Auctions with Efficient Queries.
with Jing Chen, Bo Li and Pinyan Lu, Artificial Intelligence 2022
4. Equilibrium Behaviors in Repeated Games.
with Harry Pei, Journal of Economic Theory 2021
5. Efficient Approximations for the Online Dispersion Problem.
with Jing Chen and Bo Li, SIAM Journal on Computing 2019

CONFERENCE
PUBLICATIONS

1. Algorithmic Information Disclosure in Optimal Auctions.
with Yang Cai and Jinzhao Wu, EC 2024
2. Optimal Scoring for Dynamic Information Acquisition.
with Jonathan Libgober, EC 2024
3. Revenue Maximization for Buyers with Costly Participation.
with Yannai Gonczarowski, Nicole Immorlica and Brendan Lucier, SODA¹ 2024
4. Optimal Scoring Rules for Multi-dimensional Effort.
with Jason Hartline, Liren Shan and Yifan Wu, COLT² 2023
5. Bayesian Analysis of Linear Contracts.
with Tal Alon, Paul Dütting and Inbal Talgam-Cohen, EC³ 2023
6. Making Auctions Robust to Aftermarkets.
with Moshe Babaioff, Nicole Immorlica and Brendan Lucier, ITCS⁴ 2023
7. Budget Pacing in Repeated Auctions: Regret and Efficiency without Convergence.
with Jason Gaitonde, Bar Light, Brendan Lucier and Alex Slivkins, ITCS 2023
8. Simple Mechanisms for Non-linear Agents.
with Yiding Feng and Jason Hartline, SODA 2023

¹ACM-SIAM Symposium on Discrete Algorithms

²Conference on Learning Theory

³ACM Conference on Economics and Computation

⁴Innovations in Theoretical Computer Science

9. Selling Data to an Agent with Endogenous Information. EC 2022
10. Optimization of Scoring Rules.
with Jason Hartline, Liren Shan and Yifan Wu, EC 2022
11. Almost Proportional Allocations for Indivisible Chores.
with Bo Li and Xiaowei Wu, WebConf⁵ 2022
12. Revelation Gap for Pricing from Samples.
with Yiding Feng and Jason Hartline, STOC⁶ 2021
13. Tight Regret Bounds for Infinite-armed Linear Contextual Bandits.
with Yining Wang, Xi Chen and Yuan Zhou, AISTATS⁷ 2021
14. Benchmark Design and Prior-independent Optimization.
with Jason Hartline and Aleck Johnsen, FOCS⁸ 2020
15. Multinomial Logit Bandit with Low Switching Cost.
with Kefan Dong, Qin Zhang and Yuan Zhou, ICML⁹ 2020
16. Fair Resource Sharing and Dorm Assignments.
with Bo Li, AAMAS¹⁰ 2020
17. Approximately Maximizing the Broker's Profit in a Two-sided Market.
with Jing Chen and Bo Li, IJCAI¹¹ 2019
18. Optimal Auctions vs. Anonymous Pricing: Beyond Linear Utility.
with Yiding Feng and Jason Hartline, EC 2019
19. Nearly Minimax-Optimal Regret for Linearly Parameterized Bandits.
with Yining Wang and Yuan Zhou, COLT 2019
20. Revenue Maximization with Imprecise Distribution.
with Pinyan Lu and Haoran Ye, AAMAS 2019
21. Information Elicitation for Bayesian Auctions.
with Jing Chen and Bo Li, SAGT¹² 2018
22. Dynamic Fair Division Problem with General Valuations.
with Bo Li and Wenyang Li, IJCAI 2018
23. Bayesian Auctions with Efficient Queries (Brief Announcement).
with Jing Chen, Bo Li and Pinyan Lu, ICALP¹³ 2018
24. Efficient Approximations for the Online Dispersion Problem.
with Jing Chen and Bo Li, ICALP 2017

⁵The Web Conference

⁶ACM Symposium on Theory of Computing

⁷International Conference on Artificial Intelligence and Statistics

⁸IEEE Symposium on Foundations of Computer Science

⁹International Conference on Machine Learning

¹⁰International Conference on Autonomous Agents and Multiagent Systems

¹¹International Joint Conferences on Artificial Intelligence

¹²International Symposium on Algorithmic Game Theory

¹³EATCS International Colloquium on Automata, Languages and Programming

ACADEMIC
SERVICE

Workflow Chair: EC 2024

Program Committee

- EC 2025, WINE¹⁴ 2024, EAAMO 2024¹⁵, EC 2024, WINE 2023, EC 2023, WebConf 2023, WINE 2022

Journal Reviewer

- American Economic Review, American Economic Review: Insight, Journal of Economic Theory, Journal of the ACM, SIAM Journal on Computing, Operations Research, Mathematics of Operations Research, Games and Economic Behavior, Transactions on Information Theory, Transactions on Economics and Computation, Economic Theory, Artificial Intelligence, Theory and Decision.

Conference Reviewer

- STOC, SODA, EC, ICALP, ICML, ITCS, KDD, AISTATS, ESA, WebConf, WINE, COCOA

CURRENT
STUDENTS

- Naman Agrawal (Undergrad)
- Jiao Hanyang (Undergrad)
- Zeyu Wang (PhD)
- Yiyao Zhu (Postdoc)

FORMER
STUDENTS

- Junjie Chen (Postdoc), then Postdoc at Kyushu University.

TEACHING
EXPERIENCE

Instructor - National University of Singapore

EC4501/EC4501HM Economics and Computation

Spring 2025

EC5881/EC5881R - Topics in Microeconomics

Fall 2024

Teaching Assistant - Northwestern University

COMP_SCI 396 - Online Markets

Spring 2020

COMP_SCI 336 - Design & Analysis of Algorithms

Fall 2019

COMP_SCI 212 - Mathematical Foundations of Computer Science

Spring 2019

Teaching Assistant - Stony Brook University

CSE 215 - Foundations of Computer Science

Fall 2015, Spring 2016

CSE 114 - Computer Science I

Spring 2016

CSE 540 - Theory of Computation

Fall 2016

¹⁴Conference on Web and Internet Economics

¹⁵ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization