

# Suho Shin

Ph.D. Student at University of Maryland, College Park

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## RESEARCH INTEREST

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I'm broadly interested in the intersection of microeconomics, theoretical computer science and learning theory. This includes algorithmic game theory/mechanism design, information design, social learning/choice, and their interface with approximate/randomized/online algorithm, computational complexity, and multi-armed bandits.

## EDUCATION

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**University of Maryland, College Park**

Maryland, USA

*Ph.D. in Computer Science*

Sep. 2022 –

- Advisor: [Prof. MohammadTaghi Hajiaghayi](#)

**Korea Advanced Institute of Science and Technology**

Daejeon, South Korea

*M.S. in Electrical Engineering*

Mar. 2016 – Jan. 2018

- Advisor: [Prof. Yung Yi](#)

**Korea Advanced Institute of Science and Technology**

Daejeon, South Korea

*B.S. in Mathematical Sciences*

Mar. 2011 – Feb. 2016

## PUBLICATION

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$(\alpha, \beta)$  denotes alphabetical order of authorship, which is common in theoretical computer science/econ/math community.

**Replication-proof Bandit Mechanism Design**

$\alpha, \beta$  S. Esmaeili, M. Hajiaghayi, S. Shin

Under review

**Almost Tight Guarantees for Online Nash Social Welfare Maximization**

$\alpha, \beta$  K. Banihashem, M. Hajiaghayi, E. Martinez, S. Shin, M. Springer

Under review

**Incentivizing Performance in Multi-Armed Bandits with Strategic Arms**

$\alpha, \beta$  S. Esmaeili, S. Shin, A. Slivkins

Under review

**A Regret Analysis of Repeated Delegated Choice**

$\alpha, \beta$  M. Hajiaghayi, M. Mahdavi, K. Rezaei, S. Shin

Under review

**An Improved Relaxation for Oracle-Efficient Adversarial Contextual Bandits**

$\alpha, \beta$  K. Banihashem, M. Hajiaghayi, S. Shin, M. Springer

Under review

**Bandit Social Learning under Myopic Agents**

$\alpha, \beta$  K. Banihashem, M. Hajiaghayi, S. Shin, A. Slivkins

[Under review](#)

**Delegating to Multiple Agents**

$\alpha, \beta$  M. Hajiaghayi, K. Rezaei, S. Shin

[EC'23](#)

**Multi-armed Bandit Algorithm against Strategic Replication.**

S. Shin, S. Lee, J. Ok

[AISTATS'22](#)

## Power of Bonus in Pricing for Crowdsourcing.

*S. Shin, H. Choi, Y. Yi, J. Ok*

[SIGMETRICS'22](#)

## HONORS & AWARDS

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### Gradute School Summer Research Fellowship

*University of Maryland*

USA  
Summer 2023

### Dean's Fellowship

*University of Maryland*

USA  
Fall 2022 – Fall 2024

### The National Scholarship for Science and Engineering

*Korea Student Aid Foundation*

South Korea  
Spring 2011 – Fall 2017

### Dean's Award for Entrance

*Korea Advanced Institute of Science and Technology*

South Korea  
Spring 2011

### Gold Medal, Korean Mathematical Olympiad

*Korean Mathematical Society*

South Korea  
Fall 2008

## VISITS & INTERNSHIPS

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### Visiting Student

*Host: [Prof. Piotr Krysta](#)*

University of Liverpool  
Jul. 2023

### Visiting Student

*Topic: [Mathematics and Computer Science of Market and Mechanism Design](#)*

SLMath, UC Berkeley  
Jun. 2023

### Research Intern

*Host: [Prof. Jungseul Ok](#)*

Machine Learning Lab, Postech  
Summer 2022

## ACADEMIC SERVICE

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### Reviewer

*NeurIPS'23, AISTATS'22*

## TALKS

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### Delegating to Multiple Agents

*INFORMS Annual Meeting, Auctions and Market Design*

Arizona, USA  
Oct. 2023

### Delegating to Multiple Agents

*ACM Conference on Economics and Computation (EC)*

London, UK  
Jul. 2023

### Power of Bonus in Pricing for Crowdsourcing

*Proceedings of the ACM on Measurement and Analysis of Computing Systems (POMACS)*

Virtual  
Jun. 2022

### Multi-armed Bandit Algorithm against Strategic Replication

*International Conference on Artificial Intelligence and Statistics (AISTATS)*

Virtual  
Mar. 2022

### Mechanism Design and Multi-armed Bandit

*Machine Learning Lab, Postech*

Virtual  
Feb. 2022

## TEACHING

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### **Design and Analysis of Computer Algorithms (CMSC451)**

*Teaching Assistant*

Spring 2023

UMD

### **Introduction to Computational Game Theory (CMSC474)**

*Teaching Assistant*

Fall 2022

UMD

### **Data Structure and Algorithms for Electrical Engineering (EE205)**

*Teaching Assistant*

Fall 2017

KAIST

### **Computer Networks (EE323)**

*Teaching Assistant*

Spring 2017

KAIST

## INDUSTRY

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### **LINE plus Corporation, LINE Advertisement Platform**

*Data Scientist; Technical Research Personnel for Military Service*

Seongnam, South Korea

Oct. 2020 – Apr. 2022

### **Coupang, Product, Search and Discovery Platform**

*Software Engineer; Technical Research Personnel for Military Service*

Jamsil, South Korea

Aug. 2018 – Sep. 2020