

# Gunhaeng Lee

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Nationality: Korean (South)

## EDUCATION

<i>Ph.D.</i> in Economics, The Pennsylvania State University	2018 (Expected)
<i>M.A.</i> in Economics, Korea University	2012
<i>B.S.</i> in Business Administration, Korea University	2009

## RESEARCH INTERESTS

*Primary:* Game Theory, Industrial Organization  
*Secondary:* Labor Economics, Public Economics

## WORKING PAPERS

### ***“Tailored recommendations on a matching platform” (Job Market Paper)***

Platforms not only mediate matches but work as information gatekeepers. When users who have private taste participate in a platform to find their partner, the platform asks them to provide a matching-relevant information and subsequently aggregates and distributes the collected data back to each user to facilitate an effective coordination of matches. How can a platform design information-flow to make users form matches in a desired way to the platform? I characterize a two-way communication that employs both verifiable and non-verifiable messages, and delineate the conditions under which a platform can (cannot) achieve its ex-post optimal matching outcome using this communication protocol. In the platform that achieves such an outcome, users fully reveal their private taste but platform returns personalized and only filtered information back to each user in the form of a “Recommendation.” I identify three key factors that enable such communication: 1) The distance between the distribution of tastes of each side, 2) the uncertainty measure of each distribution, and 3) the population size. As an application, I also study a two-way communication protocol with non-verifiable messages and demonstrate that communication strictly improves efficiency in any circumstances.

***“Value of waiting: Optimal waiting with advices from a biased expert”***

***“Silence and suspicion”***

## WORK IN PROGRESS

***“A blockchain protocol without the “Nothing-at-stake” problem”***

***“Do the guilty benefit from the Exclusionary rule?”***

***“Computation of extensive form trembling-hand perfect equilibrium”***

## SEMINAR PRESENTATIONS

Yonsei University Barun ICT

Feb. 2018

## TEACHING EXPERIENCE

Instructor for 'Labor Economics' (Web), The Pennsylvania State University Summer 2014, 2016  
TA for 'Mathematical Economics', The Pennsylvania State University 2014-2017  
TA for 'Introductory Marcoeconomic Analysis and Policy', The Pennsylvania State University 2012-2013  
TA for 'Game Theory', 'Microeconomics', Korea University 2010-2012

## RESEARCH EXPERIENCE

Research Assistant for Dr. Kalyan Chatterjee 2017-2018  
Research Assistant for Dr. Kiho Yoon 2010-2012  
Policy works:- "Online Music Industry", "Fair Competition on Standardization and Reasonable Licensing Procedures", "Home Shopping Industry and Two-sided Market" 2011-2012

## HONORS AND SCHOLARSHIPS

Research Assistant Scholarship, The Pennsylvania State University Fall 2017 - Present  
Teaching Assistant Scholarship, The Pennsylvania State University Fall 2012 - Spring 2017  
Brain Korea 21 Scholarship with High Honor, Korea University Fall 2009 - Spring 2010  
Honors Scholarships from Korea University Spring 2008 - Spring 2011

## ADDITIONAL SKILLS AND OTHER EXPERIENCES

Language: Korean (native), English (fluent)  
Software: Matlab, Mathematica, R  
Republic of Korea Army Oct. 2005 - Oct. 2007

## REFERENCES

**Professor Kalyan Chatterjee (Advisor)** kchatterjee@psu.edu  
Distinguished Professor of Economics and Management Science  
The Pennsylvania State University

**Professor James Jordan** jxj13@psu.edu  
Liberal Arts Research Professor of Economics  
The Pennsylvania State University

**Professor Ron Siegel** rus41@psu.edu  
Associate Professor of Economics  
The Pennsylvania State University

**Professor Jenny Li** xxl4@psu.edu  
Associate Professor of Economics and Mathematics  
The Pennsylvania State University

**Professor John Riew** jriew@psu.edu  
Professor Emeritus of Economics  
The Pennsylvania State University