SIWON RYU

+1 213-304-2931, +82 010-3369-6933 | siwon.ryu@rice.edu | https://siwonryu.com | linkedin.com/in/siwon-ryu

Research Fields

Econometrics, Program Evaluation, Network Economics, Health Economics.

Education

Ph.D. Economics, Rice University	May 2025 (expected)
M.A. Economics, Seoul National University	2020
B.A. Economics, Kyung Hee University	2017

Honors

John R. Kelly Graduate Student Teaching Prize in Economics, Rice University	2023
Robin C. Sickles Award for Best Performance in Qualifying Exams, Rice University	2022
Maria Esther and Carlos Linares Award for Best Performance in First-Year Courses, Rice University	2021
Graduate Fellowship, Rice University	2020-Present

Working Papers

"Decomposition of Causal Effect Accounting for Network Change" (Job market paper)

Abstract: This study analyzes the identification and estimation of treatment effects, considering network changes resulting from the treatment. Compared to the classical literature that assumes independent units, recent studies emphasize the significance of spillover effects. However, these studies often assume that the underlying network is fixed or unaffected by treatment. Meanwhile, there is empirical evidence suggesting that treatment can also affect the network. The purpose of this study is to estimate the causal treatment and spillover effects accounting for the causal network changes from the treatment. We derive the decomposition of the causal effects into two distinct parts: the effect of treatment when the network remains unchanged and the effect when only the network structure is changed by the treatment. This approach enhances our understanding of the mechanisms of a policy or program by considering counterfactual scenarios in which the network is changed or unchanged due to treatment. Additionally, the study addresses quasi-experimental situations, providing a Difference-in-Differences approach. + MC resuts + Application

"Local Average Treatment Effects with Imperfect Compliance and Interference" (Submitted, *Journal of Econometrics*)

"Direct and Indirect Treatment Effects with Social Interaction"

Work in progress

"Heterogeneous Parental Labor Supply Responses to Children's Severe Health Shocks: Evidence from Administrative Data from South Korea" with Jungmin Lee and Hyuncheol Bryant Kim

Teaching and Research Experience

Teaching Assistant, Rice University	2021-Present
Econometrics I (G), Econometrics II (G)	
Teaching Assistant, Seoul National University	2018-2019
Econometrics (G), Topics in Econometrics (G)	
Teaching Assistant at Kyung-Hee University	2015
Macroeconomics I (UG), Macroeconomics II (UG)	
Research Assistant, Seoul National University	
Research Assistant with Professor Jungmin Lee, Seoul National University	

"Establishment The Database for The Socio-Economic Level of Korea" using Database of Korea National Insurance Service (NHIS)   2018-2019

Research Assistant with Professor Hyuncheol Bryant Kim, Jisoo Hwang, Seoul National University

"Job Displacement and The Economic, Health Outcomes" using Database of Korea National Insurance Service (NHIS)   2019-2020

Science Korea Research Assistantship, Korea Research Foundation	2019-2020
Brain Korea 21 Plus Research, Seoul National University	2018

Professional Experience

Research Analyst, Korea Institute for Industrial Economics and Trade (KIET)	2014

Conferences and Seminars

Brown-Bag seminar, Rice University	2022, 2023, 2024
Texas Econometrics Camp Conference	2024

Skills

Programming Skills:	Matlab, Stata, Mata, SAS, SAS-IML, R, Python, Julia, SQL, Git
Languages:	English (Fluent), Korean (Native)

References

Professor Xun Tang (Chair)
Department of Economics
Rice University
xun.tang@rice.edu

Professor Matthew Thirkettle
Department of Economics
Rice University
matthew.thirkettle@rice.edu