Ryoji Jinushi

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Education

Ph.D. Economics, University of California, Riverside	2023
M.E. Civil Engineering, Kobe University	2016
B.E. Civil Engineering, Kobe University	2014
F.E. Civil Engineering, Kobe City College of Technology	2012

Working Papers

Costly Advertising and Information Congestion: Insights from Pigou's Successors

Abstract: As consumers have limited capacity to process information, advertisers must compete for attention. This creates information congestion which produces social loss like unread advertisements. We apply population games and best response dynamics to analyze information congestion. Multiple equilibria impair traditional policies, and thus, non-traditional policies are examined to lead the system to a Pareto efficient equilibrium. We achieve this, for example, by changing the cost per message multiple times during the evolutionary process. In this process, policymakers gradually investigate externalities. However, these policies are costly, which confirms the inefficiency of advertising structures where advertisers send messages regardless of consumer interests.

From Sequential Equilibrium to Perfect Equilibrium: Two Types of Perturbed Strategy Profiles

Abstract: We analyze the necessary and sufficient condition with which sequential equilibrium (Kreps and Wilson 1982) is perfect (Selten 1975). This From-Sequential-equilibrium-To-Perfect-equilibrium (FSTP) condition consists of special types of strategy profiles (well-mixed strategy profiles), which are slightly weaker than completely mixed strategy profiles. Well-mixed strategy profiles are applicable to uncountable strategy sets. In addition, well-mixed strategy profiles enable us to check various rationalities based on completely mixed strategy profiles while requiring less data on payoffs of choices.

From Sequential Equilibrium to Perfect Equilibrium: Revisit of Okada(1991)

Abstract: There are two popular equilibrium concepts for finite extensive-form games, perfect equilibrium and sequential equilibrium. We find a relatively simple necessary and sufficient condition with which sequential equilibrium is perfect. We interpret the condition while referring to lexicographic domination proposed in Okada (1991). In particular, when each path includes at maximum two decision nodes in a game, regardless of the number of players in the game, any lexicographically undominated strategy combination is a perfect equilibrium, and any perfect equilibrium is a lexicographically undominated strategy combination. In addition, we indirectly discuss "perfect equilibrium" in games with uncountable actions via lexicographic domination, which is applicable to uncountable actions.

From Sequential Equilibrium to Perfect Equilibrium: Family of Solution Concepts

Abstract: We propose trembling-hand perfect conditional equilibrium distributions for games with uncountable information sets. This new solution concept inherits the core idea of Selten's (1975) perfect equilibria; In Kreps and Wilson's (1982) sequential equilibrium, if players facing multiple best choices carefully discuss future errors and still choose to maintain their current choice, the strategy profile is a perfect equilibrium. To justify our new solution concept, we utilize this From-Sequential-equilibrium-To-Perfect-equilibrium (FSTP) condition, proposed in our another project (Jinushi 2023b). FSTP consists of special types of perturbations slightly weaker than completely mixed perturbations. The core idea of FSTP is applicable to games with uncountable information sets. We additionally require adjusted FSTP to perfect conditional equilibrium distributions proposed in Myerson & Reny (2020), which inherit the core characteristics of sequential equilibria. The equilibrium distributions with adjusted FSTP reject any perfect conditional equilibrium distributions based on weakly dominated choices. We prove the existence of the equilibrium distribution with FSTP for a large class of games with uncountable information sets.

Work in Progress

Stable Price Dispersion in Directed Search with Discrete Currency Unit

Experience

Teaching

Seikei University

Basic Mathematics for Economics Majors (Spring Semester 2023, 2024)

Introduction to Economics (Spring Semester 2023, 2024)

Intro to Programming and Python (Fall Semester 2023)

Economic Applications of Game Theory (Fall Semester 2023)

Freshman Seminar (Spring Semester 2023, 2024)

Teaching Assistant

University of California, Riverside

Introduction to Microeconomics (Fall 2018 , Winter, Spring, Fall 2019, Winter, Spring, Fall 2020, Winter and Spring 2021)

Introduction to Macroeconomics (Fall 2021)

Intermediate Microeconomic Theory (Winter 2022)

Intermediate Microeconomics (Spring 2022, Fall 2022)

Research Assistant

Richard Arnott, University of California, Riverside (Summer 2019)

Takamasa Iryo, Kobe University (Fall 2014–Winter 2017)

Additional

Presentations

2022: Summer Workshop on Economic Theory in Otaru, Royal Economic Society Symposium of Junior Researchers, Game Theory Workshop in Kyoto

2021: Economic Graduate Student Conference at Washington University in St. Louis, 48th Annual Conference of the European Association for Research in Industrial Economics, 19th Annual International Industrial Organization Conference

Publication (Non-economics)

Peer-reviewed

Jinushi, R. & Iryo, T. (2015). Spatial Locality of Advertising Media and Information Asymmetry -A Model with Two Areas and Three Media-, Journal of JSC (Japan Society of Civil Engineers), Ser. D3 (Infrastructure Planning and Management), 71(5).

Grants, Awards and Fellowships

2024 Pilot-Project Grant of the Center for Asian and Pacific Studies at Seikei University, "Minimum Unit of Currency in Economic Theory"   2024-2025

JSPS KAKENHI Grant Number 23K18789 "Minimum Unit of Currency for New Policies"   2023-2025

HEERF Dissertation Year Program Award, University of California, Riverside 2022

Graduate Student Travel Grant, University of California, Riverside 2021

Dean's Distinguished Fellowship, University of California, Riverside 2017_Present