YOSHIFUMI YOKOTA

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EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2022 (expected) Dissertation Title: *Three Essays in Game Theory* Dissertation Committee: Bart Lipman, Larry Epstein and Juan Ortner

M.A., Political Economy, Waseda University, Tokyo, Japan, 2011

B.A., Political Science, Waseda University, Tokyo, Japan 2009

FIELDS OF INTEREST

Microeconomic Theory, Information Economics, Behavioral Economics

WORKING PAPERS

"The Limits of Robust Information Design" September 2021. Job Market Paper. "Rationalizability in Regular Preference Form Games: Incomplete Information and Higher Order Uncertainty" December 2020.

"Mixed-Nash Implementation without No Veto Power," May 2018

"Two Player Mixed-Nash Implementation," August 2019

WORK IN PROGRESS

"Ambiguity in Dynamic Mechanism Design without Transfer"

PRESENTATIONS

Midwest Economic Theory Conference, Spring 2019, Bloomington, IN North American Summer Meeting of the Econometric Society 2019, Seattle, WA 30th Stony Brook International Conference on Game Theory, 2019, Stony Brook, NY 6th World Congress of Game Theory Society, 2021, Budapest, Hungary

FELLOWSHIPS AND AWARDS

Dean's Award, Waseda University, Tokyo, Japan 2011 Dean's Fellowship, Boston University 2015

WORK EXPERIENCE

Research Assistant for Professor Kotaro Suzumura, 2010-2013

TEACHING EXPERIENCE

Teaching Fellow, Introductory Microeconomic Analysis, Department of Economics, Boston University, Fall 2017, Spring 2018

Teaching Fellow, Microeconomic Theory (EC501), Department of Economics, Boston University, Fall 2018

Teaching Assistant, Intermediary Microeconomic Analysis, Department of Economics, Boston University, Fall 2016, Spring 2017

- Teaching Assistant, Market Structure and Economic Performance, Department of Economics, Boston University, Spring 2019, Fall 2019, Spring 2020
- Teaching Assistant, Economic Analysis of Legal Issues, Department of Economics, Boston University, Fall 2019, Spring 2020
- Teaching Assistant, Economics of Information, Department of Economics, Boston University, Summer 2019, Summer 2020
- Teaching Assistant, Market Structure and Industrial Organization, Department of Economics, Boston University, Fall 2019

LANGUAGES

Fluent in English and Japanese

COMPUTER SKILLS: STATA, MATLAB, R, LaTeX

CITIZENSHIP/VISA STATUS: US/Japan (dual citizenship)

REFERENCES Professor Barton L. Lipman Department of Economics Boston University Phone: (617) 353-2995 Email: blipman@bu.edu

Professor Larry G. Epstein Department of Economics McGill University Email: larry.epstein@mcgill.ca **Professor Juan Ortner** Department of Economics Boston University Email: jortner@bu.edu

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The Limits of Robust Information Design (Job Market Paper)

By designing a type space and recommending an action, an information designer tries to induce her preferred distribution over action profiles taken by the players. This paper characterizes outcomes, probabilistic distribution on actions taken by the players, implemented by this information design problem under some robustness considerations. In particular, we require the implementable outcomes to be robust to a small misspecification of type space, hence the players' belief hierarchies. In other words, in the nearby type spaces, the outcome closed to the original one should be implementable. To formalize this idea, the paper also proposes a concept of a distance between type spaces. This necessary and sufficient condition severely restricts the information designer's ability to influence the players' decisions. In some cases, the designer cannot be better off by manipulating information. The designer also has to provide more informative signals in the robust problem than the standard one.

Rationalizability in Regular Preference Form Games: Incomplete Information and Higher Order Uncertainty

This paper defines the notion of interim correlated rationalizability in a very general class of games with incomplete information. Working with the Epstein-Wang universal type space, our framework is general enough to accommodate non-expected utility models and ambiguity averse players. Interim correlated Rationalizability is a natural generalization of the rationalizability concept in the expected utility case and properties of the concept are studied. In particular, our rationalizability concept characterizes rationality and common knowledge of rationality. Furthermore, we investigate robustness to higher order uncertainty. Interim correlated rationalizability is the strongest solution concept satisfying upper hemicontinuity in the universal type space. Moreover, any rationalizable action profile can be made uniquely rationalizable by perturbing higher order uncertainty. As is the case for the expected utility model, the rationalizable action profile is generically unique even though ambiguity aversion weakly enlarges the rationalizable set. Finally, we show that interim correlated rationalizability in the expected utility model is generically robust to ambiguity.

Mixed-Nash Implementation without No Veto Power

We will introduce a new sufficient condition for social choice correspondences to be implementable in mixed-Nash equilibrium called strong set-monotonicity in the case where there are more than three persons. We will show that the strong set-monotonicity is also a necessary condition of the domain of the preferences is sufficiently large. Our characterization does not involve the condition of no veto power. Thus, our result can be applied to many important problems to which the traditional approach cannot be applied. Those problem include market design or matching problems. We will prove that some interesting matching rules are implementable in mixed-Nash equilibrium while they are not in pure strategy Nash equilibrium.