

Kyohei Okumura

CONTACT

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WEB SITE | <https://okuchap.github.io/>

EDUCATION

2020–26 | Ph.D. in Economics, Northwestern University
(expected) | Advisors: Bruno Strulovici, Marciano Siniscalchi, and Annie Liang
2019 | M.A. in Economics, The University of Tokyo
| Advisor: Hitoshi Matsushima
2017 | B.A. in Economics, The University of Tokyo
2016 | Exchange Student, HEC Paris

PEER-REVIEWED ARTICLES

JOURNAL PUBLICATIONS

Algorithm Design: A Fairness-Accuracy Frontier (with Annie Liang, Jay Lu, and Xiaosheng Mu),
accepted at *Journal of Political Economy*, 2024.

CONFERENCE PROCEEDINGS

Counterfactual Learning with General Data-generating Policies (with Kohei Yata, Yusuke Narita,
and Akihiro Shimizu), *the proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI-2023)*, 9286–9293, 2023.

A Simple, Fast, and Safe Mediator for Congestion Management (with Kei Ikegami and Takumi
Yoshikawa), *the proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI-2020)*,
2030–2037, 2020.

An Economic Analysis of Difficulty Adjustment Algorithms in Proof-of-Work Blockchain Systems
(with Shunya Noda and Yoshinori Hashimoto), *the 21st ACM Conference on Economics and
Computation (EC'20)*, 611, 2020.

WORKING PAPERS

Testing the Fairness-Accuracy Improvability of Algorithms (with Eric Auerbach, Annie Liang, and Max
Tabord-Meehan)

**The Efficiency of Cap-Based Regulation in Residency Matching: Evidence from the Japan Residency
Matching Program** (with Kei Ikegami, Atsushi Iwasaki, and Akira Matsushita)

An Economic Analysis of Difficulty Adjustment Algorithms in Proof-of-Work Blockchain Systems (with
Shunya Noda and Yoshinori Hashimoto)

RELEVANT POSITIONS

2022	Research Assistant for Bruno Strulovici
2021–22	Research Assistant for Annie Liang
2021–	Research Assistant, The University of Tokyo Market Design Center
2020	Research Fellow (DC2), Japan Society for the Promotion of Science (JSPS)
2019	Research Internship, 2019 RIKEN R-CCS HPC Computational Science Internship Program
2019–20	Research Assistant for Daisuke Oyama Contribute to Quantecon. [Link]
2017–20	Trainee (Scholarship Student), Center for Research and Education in Program Evaluation (CREPE), University of Tokyo
2017	Research Assistant for Kohei Kawaguchi, Toshifumi Kuroda, and Takanori Ida Wrote code for the demand estimation of Japanese telecommunication industry using R.

TEACHING EXPERIENCE

Instructor

2019	Math Camp (optimization theory, graduate), Spring and Fall 2018, University of Tokyo Taught theory and computational methods of optimization to first-year master students.
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Teaching Assistant, The University of Tokyo

2019	Microeconomics II, Instructor: Michihiro Kandori
2019	Game Theory, Instructor: Michihiro Kandori
2018	Microeconomics I, Instructor: Daisuke Oyama
2017	Mechanism Design, Instructor: Hitoshi Matsushima

HONORS AND FELLOWSHIPS

2020–25	The Nakajima Foundation Overseas Scholarship
2020	Grant-in-Aid for JSPS Fellows , Japan Society for the Promotion of Science (JSPS)
2019	MITOU Advanced Program , “CRAB: Congestion Management via Mechanism Design and Machine Learning”, Grant: JPY 10,000,000 (approx. USD 91,500)
2019	Best Student Paper Award , IEICE Technical Committee on Theoretical Foundations of Computing (COMP), “Border Patrolling Games with Multiple Agents”

CONFERENCE PRESENTATION

AUGUST 2023	Econometric Society Summer School in Tokyo, Keio University
JULY 2020	The 21st ACM Conference on Economics and Computation (EC’20), Virtual Place
MAY 2020	Spring Meeting of Japanese Economic Association, Virtual Place
MARCH 2020	IEICE Technical Committee on Theoretical Foundations of Computing, Virtual Place
FEBRUARY 2020	The 34th AAAI Conference on Artificial Intelligence (AAAI-20), New York
AUGUST 2019	Econometric Society Summer School in Sapporo, Hokkaido University
MARCH 2019	IEICE Technical Committee on Theoretical Foundations of Computing (COMP), Waseda University

SEMINAR PRESENTATION

DECEMBER 2019	The 5th Workshop on Self-Organization and Robustness of Evolving Many-Body Systems, RIKEN Center for Computational Science
OCTOBER 2019	Microeconomics Workshop, University of Tokyo
FEBRUARY 2019	Foundations of Computing Seminar, Kyushu University
JANUARY 2019	Microeconomics Workshop, University of Tokyo

COMPUTER SKILLS

Python, R, C++, Github: <https://github.com/okuchap>