Hao Zhou

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Education

Ph.D. in Economics, Department of Economics
University of Technology Sydney (UTS), Australia — Jul.2017-2022 (expected)

MPhil in Economics (withdrawal)
Shanghai University of Finance and Economics (SUFE), China — Sep.2013-Dec.2016

B.S. in Management
East China University of Political Science and Law (ECUPL), China — Sep.2009-Jun.2013

Research Interests

Market Design, Mechanism Design, Industrial Organization

Teaching Experience

Teaching Assistant for Mathematics for Economics,
Undergraduate level, UTS — Aug.2019-Nov.2019

Teaching Assistant for Microeconomic Theory I,
Master level, SUFE — Sep.2015-Jan.2016

Teaching Assistant for Game Theory
Master level, SUFE — Mar.2015-Jun.2015

Research Experience

Research Assistant for Assoc. Prof. Jun Zhang — Aug.2018-Dec.2019

Conferences and Workshops

34th Ph.D. Conference in Economics and Business, Queensland, Australia — Nov.2021
2021 UTS Ph.D. Conference, Sydney, Australia — Sep.2021
2020 UTS Ph.D. Conference, Sydney, Australia — Aug.2020
2019 UTS Ph.D. Conference, Sydney, Australia — Aug.2019
Frontiers in Market Design and Analysis Hordern Winter School, Melbourne, Australia — Jul.2019

Grants and Awards

The Best Second Year Paper (UTS) — Aug.2019
International Research Scholarship (UTS) — Jul.2017-Dec.2021
Ross Milbourne Research Scholarship in Economics (UTS) — Jul.2017-Feb.2021
First-Class Graduate School Academic Scholarship (SUFE) — Sep.2013-Dec.2016

Research Papers

"Affirmative Actions with Multi-Dimensional Privileged Types" (Job Market Paper)
Abstract: Controlled school choice programs require considering students' priorities while maintaining the diversity constraints on the composition of students. In many real-world applications, students may belong to more than one disadvantaged type (e.g. a student may both belong to the minority and the financially distressed group.) In addition, they may have weak preference orders over the channels through which they would possibly be enrolled (e.g. a student from a poor family may be granted a scholarship). This paper

provides a sequential reservation choice rule for a school reserving positions for targeted groups where students have multiple privileged types and have weak preferences over the types they would be enrolled. The sequential reservation choice rule assigns as many reserved seats to the students as possible by sophisticatedly reshuffling the reserved seats to the eligible students. We show that three axioms (eliminating justified envy, no swapping condition and non-wastefulness) can characterize the proposed choice rule. We further show that the choice rule can be implemented in polynomial time. Finally, the proposed choice rule is bilaterally substitutable so that it can result in a stable outcome when imbeded into the cumulative offering process.

"Optimal Auction Design with Referral"(with Jun Zhang)

Abstract: This paper establishes the optimal auction when a seller can incentivize an existing buyer to refer a privately known potential buyer to compete for an object. We identify three optimal channels to provide referral incentives: discouraging non-referral, favoring referral, and providing informational rent for referral. While the first two channels always appear and are essential, the third one is supplementary and appears when the potential buyer is less likely to exist and stronger. We also provide conditions under which the optimal mechanism can be implemented by simple mechanisms. Finally, we show that the conventional resale mechanism is suboptimal.

Related Skills

Language: Mandarin (Native); English (Fluent)
Software: Python; LaTeX; Stata

References

Prof. Isa Hafalir (Pricipal Supervisor)   isa.hafalir@uts.edu.au
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Assoc. Prof. Jun Zhang (Co-supervisor)   jun.zhang-1@uts.edu.au
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Dr. Kentaro Tomoeda (Co-supervisor)   kentaro.tomoeda@uts.edu.au
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