Yang Yu

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Work Experience

Jinan University, Guangzhou, China
Assistant Professor *August 2021 -*

Education

Stony Brook University, USA
Ph.D. in Economics *May 2021*
Renmin University of China, China
M.A. in Economics *June 2014*
B.S. in Computer Science and Technology *June 2012*

Research Fields

Microeconomic Theory, Mechanism Design, Industrial Organization, Information Economics

Working Papers

- "Screening contracts for information products in oligopoly," 2020 *(Job Market Paper)*

  This paper studies the design of screening contracts for information products that are sold to a group of buyers who have strategic interactions with one another. An information provider offers a menu of information structures (i.e. experiments) to firms that compete in a downstream market. Firms can also obtain their own signals privately. The precision of signals obtained is the firm's private information (i.e. type). I first identify properties of a feasible menu under different strategic environments. A feasible menu will always provide as accurate or more accurate to low types (i.e. low precision of own signals) of firms than to high types of firms. When firms face strategic complementarities, their expected net gain of the additional information is non-increasing in types and, thus, high types may be excluded from the market. When firms face strategic substitutes, a feasible menu may exclude intermediate types. I then study how the nature of competition between firms affect the information provider's optimal menu. Compared to an environment with no strategic interactions, the presence of strategic complementarities leads the information provider to perfectly correlate the information structures and provide most accurate information available. When firms face a game of strategic substitutes, the market may be partitioned into two segments and the information provided to the 'high type' segment is degraded.

- "Explicit collusion in oligopoly," 2019

  This paper studies the enforcement of a cartel with private information about production cost under a static setting. I first consider the problem of a cartel authority to implement the ex-post efficient production when facing a non-cooperative threat game (either Bertrand or Cournot). It shows that, to implement an ex-post efficient allocation, paying a minimum ex-ante subsidy forces the individual rationality constraint to be binding at an interior point under Cournot environment and binding at the

lowest point under Bertrand environment. When marginal cost is drawn from a uniform distribution and market demand is large, this minimum ex-ante subsidy is higher in a Cournot environment than in a Bertrand environment.

- "Selling separately as a robust mechanism for a multi-product monopoly," 2018

  This paper proposes separately selling as a robust mechanism for a multi-product seller facing uncertainty of the correlations between product values. In the model, a deterministic mechanism (i.e., price schedule) is offered by a seller to a buyer who has private information about product values. I prove that, in the case of two items with continuous consumer types, the best strategy is to sell independently if the seller only knows the marginal distribution of each item's valuation. This maximizes the seller's worst-case expected profit. I also show that if the valuations are independently distributed and known by the seller, offering bundling premiums is always dominated by selling separately.

Works in Progress

- "Regulation of a two-sided market under adverse selection."

Local Publications

- "Using the hypothetical development method based on Monte Carlo simulation to improve the valuation of base price of land leasing," with Weidong Qu, *China Land Science*, 2014-11, ISSN: 1001-8158

Teaching Experience

Jinan University, Guangzhou, China

Lead Instructor

- Macroeconomics
  - *Cohort*: undergraduate *Modality:* in-person *Semester(s):* Fall 2021

Stony Brook University, USA

Lead Instructor

- Intermediate Macroeconomic Theory
  - *Cohort*: undergraduate *Modality:* in-person *Semester(s):* Fall 2018, 2019; Spring 2020
- Intermediate Microeconomic Theory
  - *Cohort*: undergraduate *Modality:* online *Semester(s):* Summer 2018, 2019, 2020

Teaching Assistant

- Advanced Microeconomic Theory I (Lead Professor: Dr. Ting Liu)
  - *Cohort:* Ph.D. core *Modality:* in-person *Semester(s):* Fall 2017
- Advanced Microeconomic Theory II (Lead Professor: Dr. Pradeep Dubey)
  - *Cohort:* Ph.D. core *Modality:* in-person *Semester(s):* Spring 2018
- Econometrics
  - *Cohort:* undergraduate *Modality:* in-person *Semester(s):* Spring 2019; Fall 2020
- Mathematical Statistics
  - *Cohort:* undergraduate *Modality:* in-person *Semester(s):* Fall 2016; Spring 2017

Conferences and Presentations

- 46th Eastern Economic Annual Conference, online, March 2020
  - *Presentation:* "Explicit collusion in oligopoly"
- The 30th International Conference on Game Theory, Stony Brook, July 2019
  - *Presentation:* "Explicit collusion in oligopoly"
- The ASSA 2019 Annual Meeting, Atlanta, January 2019
- The 29th International Conference on Game Theory, Stony Brook, July 2018
  - *Presentation:* "Selling separately as a robust mechanism for a multi-product monopoly"

Fellowships, Scholarships and Awards

Stony Brook University, USA

- William Dawes Outstanding Teaching Award, *Department of Economics* *2020*
- Graduate fellowship, *Department of Economics* *2016 – present*

Renmin University of China, China

- First-class Scholarship, *The School of Public Administration* *2012 – 2014*
- Outstanding Student Cadres Award, *The School of Information* *2010*

Additional Skills

- *Programming*: C/C++, R, Matlab, Java
- *Languages*: Fluent in English, Native in Chinese