

TOPICS IN GAME THEORY: SYLLABUS^{*}

Instructor: Xiang Sun[†]

Updated: 00:49, November 14, 2013

Prerequisite: Calculus, Probability, Intermediate Microeconomics

Modular credit: 2 modular credits

Modular number:

Instructor: 孙祥

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Venue: 高级研究中心 7 栋

Module website: <http://www.xiangsun.org/teaching>

Office hours: By appointment

Language: Lectures are in English and Chinese. Lecture notes are in English.

Textbook: [OR] Martin J. Osborne and Ariel Rubinstein, *A Course in Game Theory*, MIT Press, 1994.

Electronic version is available at [Osborne's homepage](#) or [Rubinstein's homepage](#). Latest version is on September 24, 2012.

Supplementary textbook:

- * Drew Fudenberg and Jean Tirole, *Game Theory*, MIT Press, 1991.
- * Robert Gibbons, *Game Theory for Applied Economists*, Princeton University Press, 1992.
- Alvin E. Roth and Marilda Sotomayor, *Two-Sided Matching: A Study in Game-Theoretic Modeling and Analysis*, Cambridge University Press, 1992.

^{*}Wuhan University, Economics and Management School, Academic year 2013--2014, Semester 1.

[†]E-mail: xiangsun.econ@gmail.com. Suggestion and comments are always welcome.

Grading: Two-hour presentation (60%), report (20%) and performance (20%)

Reading list:

- John William Hatfield and Paul R. Milgrom, Matching with contracts, *The American Economic Review* **95** (2005), 913--935.
John William Hatfield and Fuhito Kojima, Group incentive compatibility for matching with contracts, *Games and Economic Behavior* **67** (2009) 745--749.
Will be presented by 金榜, 李建国, 朱亚寻
- Qingmin Liu and Marek Pycia, Ordinal efficiency, fairness, and incentives in large markets, working paper, Columbia University, 2012.
Will be presented by 蔡其龙, 陈镜竹, 李小刚
- John William Hatfield and Fuhito Kojima, Substitutes and stability for matching with contracts, *Journal of Economic Theory* **145** (2010), 1704--1723.
Will be presented by 鲁篱, 罗燕青
- Fuhito Kojima and Parag A. Pathak, Incentives and stability in large two-sided matching markets, *American Economic Review* **2009**, 608--627.
Will be presented by 马娜娜, 竺艳
- Fuhito Kojima, Robust stability in matching markets, *Theoretical Economics* **6** (2011), 257--267.
Mustafa Oğuz Afacan, Group robust stability in matching markets, *Games and Economic Behavior* **74** (2012), 394--398.
Will be presented by 贺婧, 孟蒙
- Fuhito Kojima, Efficient resource allocation under multi-unit demand, *Games and Economic Behavior* **82** (2013), 1--14.
Will be presented by 曹佳, 陈亮恒
- Fuhito Kojima, School choice: impossibilities for affirmative action, *Games and Economic Behavior* **75** (2012), 685--693.
Will be presented by 丁海燕, 曾浩
- Haluk I. Ergin, Efficient resource allocation on the basis of priorities, *Econometrica* **70** (2002), 2489--2497.
Yusuke Narita, Efficient resource allocation on the basis of priorities: a comment, mimeo, 2009.
Will be presented by 万幸, 吴云

Time table:

#	Date	Time	Chapters [OR]	Topics
1	Nov. 8	14:05--16:30	2, 3, 4	Strategic games
2	Nov. 22	14:05--16:30	2.6	Strategic games with incomplete information
3	Nov. 29	14:05--16:30	6, 7, 8	Extensive games with perfect information
4	Dec. 6	14:05--16:30	11, 12	Extensive games with imperfect information
5				Paper presentation
6				Paper presentation
7				Paper presentation
8				Paper presentation
9				Paper presentation
10				Paper presentation
11				Paper presentation
12				Paper presentation
13	Dec. 24	23:59		Report submission

Some useful web sites:

- <http://www.gametheorysociety.org>
- <http://www.gametheory.net>