

Teoría Microeconómica III
SEGUNDO SEMESTRE DE 2016

Reference

Some useful books for the course, which have good coverage of different parts of the course are the following:

- [MWG] Mas-Colell, Whinston and Green, “*Microeconomic Theory*”, Oxford University Press 1995.
- [B] Borgeers, T. “*An introduction to the Theory of Mechanism Design*”, Oxford University Press 2015.
- [K] Krishna, V. “*Auction Theory*”, Academic Press 2009.
- [R] Roth, A. y M. Sotomayor, “*Two Sided Matching: A Study in Game-Theoretic Modeling and Applications*”, MIT Press, 2005.

Contents

A. Introduction ([MWG], [B]) (3 lectures)

1. Bayesian Games and Equilibrium Concepts.
2. Revelation Principle ([19])

B. Revenue Maximizing Mechanisms ([MWG],[B],[K]) (4 lectures)

1. Optimal Auctions ([20])
2. Other applications. Just a quick and very idiosyncratic selection includes:
 - Monopoly regulation ([3])
 - Quality provision ([7])
 - Optimal patent design ([11])

C. Efficient Mechanisms ([B],[K]) (4 lectures)

1. Vickrey-Clark-Groves (VCG) mechanisms
2. Generalized VCG mechanisms and the problem of budget balance, possibility and impossibility Results ([21], [8])
 - For a very general treatment and a good review of the literature, see [14].
3. Correlated Signals and Full Extraction ([9]). Another version (more general, and it admits a continuum of types) see [17]). For the generical nature of the result and some further review of the literature, see [10].

D. Extensions (8 lectures)

1. Multidimensional signals. For the classical impossibility result: [13]. For a (very clever) possibility result see [18].
2. Allocative and Informational Externalities ([12])

3. Multiple Principals ([22])
 - There are other interesting papers in this line, e.g. [24], and the simultaneous move version in [25].
4. Informed Principal ([15], [16])
5. Dynamic Mechanisms
 - For the problem of efficiency see [5] and [2].
 - For the problem of revenue maximization see [23].
 - For the (very difficult and very interesting) problem of lack of commitment and persistent types see [26], [27], [28] and [6].
6. Information Acquisition ([4])

E. Matching without Transfers [R] (5 lectures)

- Basic Model: Deferred Acceptance Algorithm, properties and algorithms.
- Extensions: College-admissions.
- Top trading cycles algorithm ([1]).

References

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- [6] Helmut Bester and Roland Strausz. Contracting with imperfect commitment and the revelation principle: the single agent case. *Econometrica*, 69(4):1077–1098, 2001.
- [7] Yeon-Koo Che. Design competition through multidimensional auctions. *The RAND Journal of Economics*, pages 668–680, 1993.
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- [11] Hugo Hopenhayn, Gerard Llobet, and Matthew Mitchell. Rewarding sequential innovators: Prizes, patents, and buyouts. *Journal of Political Economy*, 114(6):1041–1068, 2006.
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- [18] C. Mezzetti. Mechanism design with interdependent valuations: Efficiency. *Econometrica*, 72(5):1617–1626, 2004.
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