

REFERENCES: General list of papers will be generated as we go. It will include reports provided by students. A unified bibliography file in BibTeX format will be available. Thus, each student can use it for own work and reports, as well as for subsequent (own) papers.

TOPICS AND REFERENCES¹

1. Games with incomplete information. Revelation principle. Sequential equilibrium.

A breakthrough paper is Harsanyi (1967-68). Early formulations and utilizations of revelation principle appear in Gibbard (1973), Green and Laffont (1977), Dasgupta, Hammond, and Maskin (1979), Myerson (1979), and Myerson (1981). (these are very interesting papers by themselves)

Mertens and Zamir (1985) construct Universal type on which any interaction with incomplete information can be modeled as a Bayesian-Nash game. Also look at Morris (2002).

Kreps and Wilson (1982) present sequential equilibrium.

For general references on game theory, consider Fudenberg and Tirole (1991) and Osborne and Rubinstein (1997).

2. Auctions and mechanism design.

The first classical paper on auctions is Vickrey (1961), it includes analysis of simple auctions, in particular of a second-price auction (often,

¹The papers listed below are not by any means the only influential papers in the corresponding areas. They represent only a small selection out of vast literature.

somewhat misleadingly, referred to as Vickrey auction), makes a revenue equivalence observation. Note that this paper appeared before Harsanyi (1967-68). Cassady (1967) provides excellent overview of various auction practices. ? is the first paper to provide a comprehensive analysis of multi-unit auctions.

Optimal auctions. Riley and Samuelson (1981) show that variety of auction formats with appropriately chosen reserve price maximize seller's revenue among all possible mechanisms in the symmetric independent private values setting. Myerson (1981) finds optimal mechanism in asymmetric setting, and, on the way, establishes a general revenue equivalence theorem, and also formulates revelation principle. Bulow and Roberts (1989) extend optimal auction analysis and provide parallels to a monopolist with unknown demand problems, consider bilateral exchange applications. ? and ? show possibility of full surplus extraction (and efficiency) when individual types are not independent.

Revenue ranking. Milgrom and Weber (1982) provide revenue ranking of common auctions under affiliation and symmetric interdependence (English A > second-price > first-price), introduce button (or continuous ascending price) model of an English auction. ? analyze auctions with risk aversion. ? add financial constraints.

Efficient auctions. Vickrey (1961), Clarke (1971), Groves (1973) are sources for generalized Vickrey-Clarke-Groves (*VCG*) mechanism. The most comprehensive study of it is Krishna and Perry (1998) (multiple goods, complements). On efficient auctions and efficient auction design, Maskin (1992) and Maskin (2003) are survey-like papers. Dasgupta and Maskin (2000) suggest an indirect efficient multi-unit (and more) mechanism. Perry and Reny (2002) and Perry and Reny (2001) are two efficient constructions (one is sealed-bid, one is ascending price) that extend two-player efficiency properties of Vickrey and English (Ausubel) auctions to multi-player environments. ? suggest a sequential multi-unit construction.

Failures of efficiency: Myerson and Satterthwaite (1983) show impossibility of efficient bilateral exchange. Jehiel and Moldovanu (2001) show that with multidimensional information efficiency is not attainable in general.

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