

MIHAI MANEA

CONTACT

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EDUCATION

Ph.D., Economics, Harvard University, expected 2009
A.B., Economics, Summa Cum Laude (Major GPA: 4.33/4.33), Princeton University, 2005
Certificate in Finance, Certificate in Applied and Computational Mathematics

JOB MARKET PAPER

"Bargaining in Stationary Networks"

RESEARCH INTERESTS

Microeconomic Theory

REFERENCES

Drew Fudenberg (primary advisor), Harvard University, 617-496-5895, dfudenberg@harvard.edu
Dilip Abreu, Princeton University, 609-258-4021, dabreu@princeton.edu
Al Roth, Harvard University, 617-495-5447, aroth@hbs.edu

HONORS AND AWARDS

AT HARVARD

Presidential Scholarship of the Graduate School of Arts and Sciences, 2005–2009
Justice, Welfare and Economics Research Fellowship, 2007

AT PRINCETON

The Halbert White '72 Prize in Economics, 2005
("most outstanding senior economics major")
Wolf Balleisen Memorial Prize, 2005
("the best thesis on an economics subject, written by an economics major")
Phi Beta Kappa, 2004
Class of 1939 Princeton Scholar Award, 2004
("highest academic standing at the end of the junior year for all preceding college work")
George B. Wood Legacy Sophomore Prize, 2003
("exceptional academic achievement during the sophomore year")
2 Shapiro Prizes for Academic Excellence, 2002, 2003

2 Class of 1861 Prizes, Mathematics Department, 2002, 2003

BEFORE PRINCETON

3 Gold Medals in the International Mathematical Olympiad, 1999, 2000, 2001

3 Gold Medals in the Balkan Mathematical Olympiad, 1999, 2000, 2001

6 First Prizes in the Romanian National Mathematical Olympiad, 1996–2001

Diplomas of Excellence from 2 Presidents of Romania, 2000, 2001

The Education Prize of the Romanian Liberal Party, 1998, 1999, 2000

The Galati City Prize for Outstanding Achievements, 1996, 1999, 2000, 2001

PAPERS¹

★ "Asymptotic Ordinal Inefficiency of Random Serial Dictatorship," forthcoming *Theoretical Economics*

★ "Bargaining and Efficiency in Networks" (with Dilip Abreu)

"Core Tâtonnement," *Journal of Economic Theory* 2007

"Serial Dictatorship and Pareto Optimality," *Games and Economic Behavior* 2007

"A Constructive Proof of the Ordinal Efficiency Welfare Theorem," *Journal of Economic Theory* 2008

"Unique Induced Preference Representations," *Journal of Mathematical Economics* 2008

"Random Serial Dictatorship and Ordinarily Efficient Contracts," *International Journal of Game Theory* 2008

"Some $a^n \pm b^n$ Problems in Number Theory," *Mathematics Magazine* 2006

"Cheating in Repeated Games with Behavioral Types," unpublished

"Competitive Priority Claims and Resource Allocation via Deferred Acceptance" (with Fuhito Kojima), revise/resubmit *Econometrica*

"Strategy-Proofness of the Probabilistic Serial Mechanism in Large Random Assignment Problems" (with Fuhito Kojima), submitted

"Trade Mechanisms with Independent Discrete Types" (with Nenad Kos)

"Destruction and Mechanism Design" (with Eric Maskin)

¹Starred papers are included in the application packet along with the job market paper.

TALKS, SUMMER SCHOOLS, ETC.

3rd World Congress of the Game Theory Society, Evanston, 2008
Stanford GSB Theory Seminar, 2008
Northwestern Special Seminar, 2008
Kellogg MEDS Pre-Doc Program, 2008
Princeton Student Theory Seminar, 2008
Harvard Behavior in Games and Markets Seminar, 2006-2008
Stony Brook Game Theory Conference, 2007
Matching Theory Workshop, Barcelona, 2007
Summer School in Economic Theory, Jerusalem, 2007
Price Theory Summer Camp, Chicago, 2007
Summer School in Behavioral Economics, Trento, 2006

TEACHING FELLOW

Oliver Hart and Roger Myerson, graduate Microeconomic Theory, 2008
Drew Fudenberg, graduate Game Theory, 2007

RESEARCH ASSISTANT

Dilip Abreu (bargaining, 2002–2003), Attila Ambrus (2005-2008), Drew Fudenberg (2005-2008), Gene Grossman–Elhanan Helpman (voting and protectionism, 2004), Faruk Gul–Wolfgang Pesendorfer (choice theory, 2005), Robert Shimer (matching in labor markets, 2002–2003)

ABSTRACTS OF SELECTED PAPERS

BARGAINING IN STATIONARY NETWORKS

We study an infinite horizon game in which pairs of players connected in a network are randomly matched to bargain over a unit surplus. Players that reach agreement are replaced by new players at the same positions in the network. We prove that for each discount factor all equilibria are payoff equivalent. The equilibrium payoffs and the set of equilibrium agreement links converge as players become patient. Several new concepts—mutually estranged sets, partners, and shortage ratios—provide insights into the relative strengths of the positions in the network. We develop a procedure to determine the limit equilibrium payoffs by iteratively applying the following results. Limit payoffs are lowest for the players in the largest mutually estranged set that minimizes the shortage ratio, and highest for the corresponding partners. In equilibrium, for high discount factors, the partners act as an oligopoly for the estranged players. In the limit, surplus within the induced oligopoly subnetwork is divided according to the shortage ratio. We characterize equitable networks, stable networks, and non-discriminatory buyer-seller networks. The results extend to heterogeneous discount factors and general matching technologies.

BARGAINING AND EFFICIENCY IN NETWORKS

We study an infinite horizon game in which pairs of players connected in a network are randomly matched to bargain over a unit surplus. Players that reach agreement are removed from the network without replacement. For many networks all Markov perfect equilibria of the bargaining game are asymptotically inefficient as players become patient. The main result is that for every network structure the bargaining game admits asymptotically efficient subgame perfect equilibria. Markov perfect equilibria (MPEs) are of independent interest. We establish existence of MPEs, and show that MPE payoffs are not necessarily unique. We provide a method to construct pure strategy MPEs for high discount factors.

ASYMPTOTIC ORDINAL INEFFICIENCY OF RANDOM SERIAL DICTATORSHIP

The random serial dictatorship mechanism is widely used for allocating indivisible objects. We show that the fraction of preference profiles for which the random serial dictatorship allocation is ordinally efficient vanishes for allocation problems with many object types. We also show that the random serial dictatorship allocation is asymptotically ordinally inefficient in a probabilistic setting where in expectation agents may have moderately similar preferences reflecting varying popularity levels across objects. We provide results with similarly negative content for allocation problems with many objects of each type. One corollary is that ordinal efficiency is a strict refinement of ex-post efficiency at most preference profiles. The results question the use of random serial dictatorship in allocation problems of practical interest.