

Syllabus, Ec717a: Mechanism Design and Contract Theory

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Spring 2020, Boston University Department of Economics

This forms one half of Ec717, which I will teach in February and March 2020. The other half on organizational economics will be taught by Andy Newman in January and April.

My intention is to expose you to recent work on mechanism design and contract theory. I will focus on three sets of topics: (a) Robust Incentives and Complexity: designing incentives and mechanisms when principal and agents may not share a common prior, or where contract design need to incorporate costs of complexity and communication; (b) Hierarchies, Delegation and Collusion: delegation of decision-making authority within organizations, and control of collusion; (c) Relational Contracts, where external enforcement is not available and contracts need to be self-enforcing via long term relationships.

Class: T,Th 2-315pm, SSW315.

Office Hours: M2-330, Th11-1230 (Room 500A, 264 Bay State Road)

Course website: <http://people.bu.edu/dilipm/ec717/717hmpg.html>

Prerequisites: First Year PhD courses in micro (Ec701, 703) or equivalent

Grading: Class presentations, participation and research proposal. Wednesdays (545-8 pm) can be used if necessary for class or research proposal presentations.

Academic Conduct: You are expected to know and understand the provisions of the CAS Academic Conduct Code. Cases of suspected academic misconduct will be referred to the Dean's Office.

Sessions and Readings:

1. Robust Incentives (Feb 4,6,11,13)

P. Dasgupta and E. Maskin (2000), Efficient Auctions, Quarterly Journal of Economics.

D. Bergemann and S. Morris (2005), Robust Mechanism Design, Econometrica.

D. Bergemann and S. Morris (2009), Robust Implementation in Direct Mechanisms, Review of Economic Studies.

G. Carroll (2015), Robustness and Linear Contracts, American Economic Review.

(presented by Duoxi Li:) J. Toikka (2018), Robust Incentives for Teams, working paper, University of Pennsylvania. <https://faculty.wharton.upenn.edu/wp-content/uploads/2018/07/team.pdf>

2. Complexity and Communication Costs (Feb 20,25,27, March 3)

I. Segal (1999), Complexity and Renegotiation: A Foundation for Incomplete Contracts, Review of Economic Studies. (Feb 20)

(presented by Junhao Chen:) P. Battigalli and G. Maggi (2002), Rigidity, Discretion and the Costs of Writing Contracts. American Economic Review. (Feb 25)

D. Mookherjee and M. Tsumagari (2014). Mechanism Design with Communication Constraints. *Journal of Political Economy*. (Feb 27)

F. Herweg and K. Schmidt (2018), Procurement with Unforeseen Contingencies, working paper, University of Munich. (March 3)

<https://www.et.econ.uni-muenchen.de/personen/professor/schmidt/publikationen/papers/procurement.pdf>

3. Hierarchies, Delegation and Collusion (March 5,17,19)

P. Aghion and J. Tirole (1997), Formal and Real Authority in Organizations, *Journal of Political Economy*. (March 5)

W. Dessein (2002), Authority and Communication in Organizations, *Review of Economic Studies*. (March 5)

N. Melumad, D. Mookherjee and S. Reichelstein (1997), Contract Complexity, Incentives and the Value of Delegation, *Journal of Economics and Management Strategy*. (March 17)

D. Mookherjee, A. Motta and M. Tsumagari (2016), Consulting Collusive Experts, working paper, Boston University. (March 19)

<http://people.bu.edu/dilipm/wkpap/>

Andreas Asseuer (2019), Collusion and Delegation under Information Control, Working Paper, Humboldt University, Berlin. (March 19)

<https://www.et.econ.uni-muenchen.de/personen/professor/schmidt/publikationen/index.html>

4. Relational Contracts (March 24, 26, 31)

J Levin (2003), Relational Incentive Contracts, *American Economic Review*. (March 24)

(presented by Siyi Song:) S. Chassang (2010), Building Routines: Learning, Cooperation and the Dynamics of Incomplete Relational Contracts, *American Economic Review*. (March 26)

(presented by Jimin Oh and Xinyuan Chen:) S. Board and M Meyer-Ter-Vehn (2015), Relational Contracts in Competitive Labor Markets, *Review of Economic Studies*. (March 31)