

# STRATEGIC INFORMATION TRANSMISSION

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## Description

This course presents basic models and economic applications of strategic information transmission in games. The first part of the course is dedicated to “cheap talk games”, in which communication is costless and non binding, and information is not certifiable. In the second part we study “persuasion games”, in which information becomes certifiable. Applications include biased expertise, delegation, lobbying with several audiences and information sharing in seller-buyer relationships and oligopolies.

Ce cours présente les modèles de base de transmission stratégique d’information dans les jeux. Les deux premières séances du cours sont consacrées aux jeux dits de “cheap talk”, dans lesquels la communication est gratuite et sans engagement, et où l’information n’est pas certifiable. Dans les deux séances suivantes nous étudions les jeux dits de “persuasion”, dans lesquels l’information devient certifiable. Parmi les applications économiques étudiées, nous verrons des problèmes d’expertise, de délégation, de lobbying à plusieurs décideurs, et de partage d’information dans des situations d’oligopole.

## General Bibliography

Forges (1994), Farrell and Rabin (1996), Koessler and Forges (2008a,b), Myerson (1994), Sobel (2007).

## Organization

### Session 1. Cheap Talk Games

- Remainder: Equilibrium refinement and signaling games
- Credible information under cheap talk: Examples
- Geometric characterization of Nash equilibrium payoffs
- Expertise with a biased interested party

Bibliography: Aumann and Hart (2003), Crawford and Sobel (1982), Osborne (2004, chap. 10), Osborne and Rubinstein (1994, chap. 12), Spence (1973).

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## Session 2. Cheap Talk Games: Extensions

- Communication in organizations: Delegation vs. cheap talk vs. commitment
- Multiple senders and multidimensional cheap talk
- Lobbying with several audiences
- Some experimental evidence
- The Art of Conversation: Multistage communication and compromises
- Mediated communication: Correlated and communication equilibria

Bibliography: Aumann (1974), Aumann and Hart (2003), Battaglini (2002), Dessein (2002), Farrell and Gibbons (1989), Forges (1990), Krishna and Morgan (2004), Melumad and Shibano (1991).

## Session 3. Persuasion Games

- The revelation principle revisited
- Hard evidence and information certification in games
- Geometric characterization of Nash equilibrium payoffs
- Sceptical strategies and worst case inferences in monotonic relationships

Bibliography: Forges and Koessler (2005), Green and Laffont (1986), Milgrom (1981), Milgrom and Roberts (1986).

## Session 4. Persuasion Games: Extensions and Applications

- Persuasion with type-dependent biases (Seidmann and Winter, 1997)
- Strategic information revelation in oligopolies

Bibliography: Forges and Koessler (2007), Okuno-Fujiwara, Postlewaite, and Suzumura (1990), Seidmann and Winter (1997), Van Zandt and Vives (2007).

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