

Introduction to information design

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The course introduces students to the ideas and methods of the (still) growing field of information design. It comprises 3 two-hour lectures and is tailored to graduate or advanced-undergraduate students with prior knowledge of basic probability and game theory.

Syllabus

Lecture 1: The information design problem, signals and posteriors, the Splitting Lemma, Kamenica and Gentzkow (2011): the concavification solution.

Lecture 2: Blackwell experiments, garblings and Blackwell's theorem. Modelling cost of information using measures of uncertainty (e.g., entropy). Costly persuasion in Gentzkow and Kamenica (2014) and Sims' rational inattention.

Lecture 3: Mean-based persuasion in information design problem with a large state space. The extreme-points characterisation from Kleiner, Moldovanu and Strack (2021). The general information design problem and Bayesian Correlated Equilibria following Bergemann and Morris (2015, 2016).

Main references

Bergemann, Dirk, and Stephen Morris. 2016. "Bayes Correlated Equilibrium and the Comparison of Information Structures in Games." *Theoretical Economics* 11 (2): 487–522.

Bergemann, Dirk, and Stephen Morris. 2016. "Information Design: A Unified Perspective." *Journal of Economic Literature* 57 (1): 44–95.

Bergemann, Dirk, Benjamin Brooks, and Stephen Morris. 2015. "The Limits of Price Discrimination." *American Economic Review* 105 (3): 921–57.

Gentzkow, Matthew and Emir Kamenica. 2015. "Costly Persuasion", *American Economic Review* P&P, 104(5), 457-462

Kamenica, Emir, and Matthew Gentzkow. 2011. "Bayesian Persuasion." *American Economic Review* 101 (6): 2590–615.

Kleiner, Andreas, Benny Moldovanu, Philipp Strack. 2021. "Extreme Points and Majorization: Economic Applications ." *Econometrica* 89(4):1557-1593