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Presentation Title

Information Design in Coordination Games with Risk Dominant Equilibrium Selection

(with Michael Ebert, Joseph B. Kadane and Dirk Simons)

Abstract

We study the design of public information structures that maximize the probability of selecting a Pareto dominant equilibrium in symmetric (2 x 2) coordination games. Because the need to coordinate exposes players to strategic risk, we treat the designer as able to implement an equilibrium only if the players believe it is also risk dominant. The designer's task is therefore to pool the set of states in which the desired equilibrium is risk dominant with the largest possible set in which it is not, while keeping the desired equilibrium risk dominant in expectation. We provide a simple characterization of the optimal signal structure which holds under general conditions. We extend the analysis to related problems, and show that our intuition is robust, suggesting that our approach provides a promising way forward for a large class of problems in constrained information design.

Keywords

Bayesian persuasion; coordination; information design; Neyman-Pearson lemma; risk dominance

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