A Belief-Based Approach to Signaling

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Abstract :
We provide a geometric characterization of the set of interim equilibrium payoffs in the general class of costly signaling games. Our characterization offers a unified, belief-based framework to study both cheap talk and costly signaling, with or without transparent motives. The key ingredient is the analysis of Bayes-plausible belief distributions and signal-contingent interim values that are incentive-compatible for the sender. Geometrically, this leads to a constrained convexification of the graphs of the interim value correspondences. We apply and illustrate the results in a class of intimidation games. We also derive the sender's best equilibrium payoff under transparent motives. Finally, we compare the equilibrium outcomes to those arising when the sender can commit to a signaling strategy.