

Interim Strategy-Proof Mechanisms: Designing Simple Mechanisms in Complex Environments

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Abstract :

We study interim strategy-proof (ISP) Mechanisms with interdependent values: It requires that truth-telling is an interim dominant strategy for each agent, i.e., conditional on an agent's own private information, the truth-telling maximizes her interim expected payoff for all possible strategies the other agents could use. We provide full characterizations of ISP mechanisms in two classical settings: single unit auctions and binary collective decision-makings. Our results highlight the tension between informational externalities and strategic externalities when designing ISP mechanisms.