

Efficient Teamwork

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Abstract

In real-life multi-agent projects, agents often choose actions that are highly inefficient for the project or damaging for other agents because they care only about their own contract and interests. We show that in most cases these are just the result of bad contracting and managing techniques. In our model, each agent has a separate working process, but they have influence on each other through publicly observable actions and events. The working process of each agent is a stochastic dynamic game. The rules of this game, as well as his decisions and chance events during the game are private information of the agent. We show an efficient mechanism which is prior-free, incentive-compatible, collusion-resistant, individually rational and avoids free-riders.