

A folk theorem with public randomization device in repeated prisoner's dilemma under cost observation and small observation error

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Abstract

We consider an infinitely repeated prisoner's dilemma under cost observation. If a player observes his opponent, then he pays an observation cost and knows the action chosen by his opponent. If a player does not observe his opponent, he cannot obtain any information about the opponent's action. We assume that the observation fails with a small observation error probability and the player observes wrong action. We will prove an efficiency result without any signals. Also, we will show a folk theorem with public randomization device for sufficiently small observation cost and observation error probability.

Keyword: Cost observation, Efficiency, Folk theorem, Prisoner's dilemma, Private monitoring, Repeated games.

JEL Classification: C72; C73; D82

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