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INTERNAL CORRELATION IN REPEATED GAMES

by

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October 1988*

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Ehud Lehrer

Abstract

We characterize the set of all the Nash equilibrium payoffs in two player repeated games where the signals that the players get after each stage is either trivial (does not reveal any information) or standard (the signal is the pair of actions played). It turns out that if the information is not always trivial then the set of all the Nash equilibrium payoffs coincides with the set of all the correlated equilibrium payoffs. In particular, any correlated equilibrium payoff of the one shot game is also a Nash equilibrium payoff of the repeated game. This means that the information structure of the game substitutes any mediator.

The main technical work is devoted to a description of a subset of the Nash equilibrium payoffs set in a general information structure, which we prove later to contain the correlated equilibrium payoffs in games with standard-trivial information.