

Synchronous Values of Games

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1. Abstract

There has been considerable interest in two person cooperative games and their classical and quantum-assisted values. Such a game is synchronous if the set of inputs is the same for both players and the rules include the rule that whenever both players receive the same question they must give the same response. A conditional probability density $p(a,b|x,y)$ is called synchronous if whenever the inputs are equal the probability of giving different outputs is 0. The synchronous values of games are given by restricting allowed strategies to those that produce synchronous densities. In this talk we study synchronous values of various games and show why for some games this is more natural than the ordinary value.