Stay-in-a-Set Games

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Abstract

There exists a Nash equilibrium (ϵ-Nash equilibrium) for every n-person stochastic game with a finite (countable) state space and finite action sets for the players if the payoff to each player i is one when the process of states remains in a given set of states G_i and is zero otherwise.

Keywords: Stochastic game, Nash equilibrium, gambling theory, games of survival.