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KILLED MARKOV DECISION PROCESSES ON FINITE TIME INTERVAL FOR COUNTABLE MODELS

Abstract

In this article we consider killed Markov decision processes for countable models on finite time interval. Existence of a uniform ε-optimal policy is proved. We showed correctness of the fundamental equation. Optimal control problem is reduced to a similar problem for derived model. We receive optimality equation and method for simple optimal policies constructing. Sufficient of simple policies for countable models is proved. We show correctness of the Markovian property. Additionally dynamic programming principle is considered.