On Approximation in Multistage Stochastic Programs: Markov Dependence

Vlasta Kaňková; Martin Šmíd

Abstract: A general multistage stochastic programming problem can be introduced as a finite system of parametric (one-stage) optimization problems with an inner type of dependence. Evidently, this type of the problems is rather complicated and, consequently, it can be mostly solved only approximately. The aim of the paper is to suggest some approximation solution schemes. To this end a restriction to the Markov type of dependence is supposed.

Keywords: multistage stochastic programming problem; approximation solution scheme; deterministic approximation; empirical estimate; Markov dependence;

AMS Subject Classification: 90C15; 90C59;