

Stochastic problems (both two-stage and multistage) can be formulated in several different ways which utilize to various extent available information on a future realization of incorporated random parameters. When comparing optimal objective function values resulting from different formulations of the given problem with the same available information, we obtain a value of using one of these formulations rather than the other one (e.g., VSS).

Level of the available information can be changed by a partial or full relaxation of nonanticipativity constraints, which assure that a present decision is independent of future (unknown) realizations of random parameters. By comparing optimal objective function values gained when solving the given problem with distinct levels of available information we obtain (expected) value of partial or perfect information. In this work we present definitions of various information value types and related values connected with the problem formulation and we derive their properties (nonnegativity, bounds). In the last part we introduce their summary classification.