Decomposition and Approximation Algorithms for Mean-Risk Stochastic Integer Programs

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Abstract: We present some recent developments in the design of decomposition algorithms for two- and multi-stage stochastic integer programs with risk aversion. The selection of the risk measure determines whether decomposition is applicable directly or has to be supplemented by an approximation via decomposable structures. An application from decentralized generation of power and heat in an energy system with renewable resources is discussed.

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