Outcome Space Algorithm for Generalized Multiplicative Problem and Optimization over the Efficient Set

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Abstract: In this paper, an algorithm of the branch and bound type in outcome space is proposed for solving a global optimization problem that includes, as special case, generalized multiplicative problems. As an application, we solve the problem of optimizing over the efficient set of a bicriteria concave maximization problem. Preliminary computational experiments show that this algorithm works well for problems with the dimension of the decision space can be fairly large.

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