

1086-91-1205

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Cost-sharing of continuous knapsacks.

This paper provides a first insight into cost sharing rules for the continuous knapsack problem. Assuming a set of divisible items with weights from which a knapsack with a certain weight constraint is to be filled, different such (classes of) rules are discussed. Those - based on individual approvals of the items - optimally fill the knapsack and share the cost of the knapsack among the individuals. Using various properties of continuous knapsack cost sharing rules, we provide three characterization results. (Received September 20, 2012)