Approximation Schemes for Non-Separable Non-Linear Boolean Programming Problems under Nested Knapsack Constraints

Nir Halman, Hans Kellerer, Vitaly A. Strusevich

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Highlights

- A model suitable for handling take-or-leave decisions is introduced
- The objective is a non-linear non-separable function
- The constraints are nested linear knapsack constraints
- Fully polynomial-time approximation schemes are presented and analysed
- Approaches: geometric rounding and K-approximation of sets and functions