

Combinatorial Optimization

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1. Continue discussion of the Simplex method.
2. Notion of a basis being relevant from both the primal and dual perspectives.
3. Weak basis theorem.
4. Strong basis theorem.
5. Strong duality theorem.
6. Dual Simplex algorithm.
7. Sensitivity analysis.
8. Lagrangian relaxation.
9. Polytope Analysis.
10. Total Unimodularity and Graphs.
11. Definition of TU.
12. Hoffman-Kruskal theorem.
13. Node-arc incidence matrix of digraphs.