Combinatorial Optimization

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1. Total Unimodularity
2. Definition of TU.
3. Show that if $\mathbf{A}$ is TU, then so is $[A,\ I]$.
4. Hoffman-Kruskal theorem.
5. Corollary: IP not necessary; linear programming is sufficient.
6. Node-arc incidence matrix of digraphs.
7. Bipartite graphs and Vertex covers. K_3.
8. Konig's theorem. Compare with Konig's orginal proof.
9. Hall's theorem.
10. The consecutive one's property.