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Minisymposium 1 - Discrete Optimization

A faster polynomial-time algorithm for the unbalanced Hitchcock transportation problem

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We present a new algorithm for the Hitchcock transportation problem. On instances with n sources and k sinks, our algorithm has a worst-case running time of $O(nk^2(\log n + k\log k))$. This algorithm closes a gap between algorithms which have a running time linear in n but exponential in k and a polynomial-time algorithm with running time $O(nk^2\log^2 n)$.