**Abstract**

We consider several *implicit* fractional packing problems and obtain faster implementations of approximation schemes based on multiplicative-weight updates. This leads to new algorithms with near-linear running times for some fundamental problems in combinatorial optimization. We highlight two concrete applications. The first is to find the maximum fractional packing of spanning trees in a capacitated graph; we obtain a $(1-\epsilon)$-approximation in $\tilde{O}(m/\epsilon^2)$ time, where $m$ is the number of edges in the graph. Second, we consider the LP relaxation of the weighted unsplittable flow problem on a path and obtain a $(1-\epsilon)$-approximation in $\tilde{O}(n/\epsilon^2)$ time, where $n$ is the number of demands.