عنوان مقاله:

An efficient algorithm for finding the semi-obnoxious (k,l)-core of a tree

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خلاصه مقاله:

In this paper we study finding the (k,l)-core problem on a tree which the vertices have positive or negative weights. Let T=(V,E) be a tree. The (k,l)-core of T is a subtree with at most k leaves and with a diameter of at most l which the sum of the weighted distances from all vertices to this subtree is minimized. We show that, when the sum of the weights of vertices is negative, the (k,l)-core must be a single vertex. Then we propose an algorithm with time complexity of O(n^۲log n) for finding the (k,l)-core of a tree with pos/neg weight, which is in fact a modification of the one proposed by Becker et al. [[Networks ۴۰ (۲۰۰۲) ۲۰۸].

کلمات کلیدی:

Core, Facility location, Median subtree, Semi-obnoxious

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