

Abstract

We present a simple deterministic single-pass $(2+\epsilon)$ -approximation algorithm for the maximum weight matching problem in the semi-streaming model. This improves upon the currently best known approximation ratio of $(3.5+\epsilon)$. Our algorithm uses $O(n \log^2 n)$ space for constant values of ϵ . It relies on a variation of the local-ratio theorem, which may be of independent interest in the semi-streaming model.