Erratum: p. 1, 3, 16: the total complexity should be $O(r^2 n \log^2 n)$ instead of $O(r^2 n \log n + r n \log^2 n)$. In (3.1) and the equation below it, r should be r^2 .

Clarification: in Remark 2.2 and Lemma 3.2, the term $O(\log n)$ is often referred to as a separation rank instead of a precise numerical rank bound. In Remark 2.2, "the off-diagonal numerical ranks of Q" should be "the off-diagonal numerical rank of a matrix resulting from Q after appropriate permutations applied to each hierarchical level in the conquering process".