	Time	Quantum Communication	Total Communication	Round
Algorithm I	$O(n^4)$	$O(n^4)$	$O(n^4)$	$O(n^2)$
Algorithm II	$O(n^6(\log n)^2)$	$O(n^2)$	$O(n^6(\log n)^2)$	$O(n \log n)$