

Grover algorithm

The Grover's algorithm is about how to search a solution of a problem from an unordered set. The significance of the Grover's algorithm is that it improves the classical performance of search algorithms from $O(n)$ to $O(\sqrt{n})$, which is a dramatic enhancement. In this presentation, we will talk about the theoretical implementation and a geometrical approach to visualize how the algorithm works. The talk will also cover some applications of this quantum search algorithm to improve the performance of some classical algorithm to solve certain hard problems, like NP-problem and minimal spanning tree problems.