

How Quantum Computing Can Help With (Continuous) Optimization

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It is known that the use of quantum computing can reduced the time needed for a search in an unsorted array from the original value T to the much smaller value \sqrt{T} . In this paper, we show that for the continuous optimization problem, with quantum computing, we can reach almost the same speed-up: namely, we can reduce the original time T to a much shorter time $\sqrt{T} \cdot \ln(T)$.