

Quantum Algorithms

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Computers design has traditionally been based on classical physics, even though the components that carried out the operations were quantum mechanical. In the last few years, physicists and computer scientists have learnt how to incorporate the ideas of quantum mechanics into computer design. Several applications have been discovered where such quantum mechanical computers would be able to carry out tasks much more efficiently than classical computers even though actually building such a quantum computer is several decades into the future. This talk will describe one such application where quantum computers give a significant speedup - that of searching.