Matrix Representation of Quantum Gates

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 159
Number 8

Year of Publication: 2017

Authors:
Aradhyamath Poornima, Naghabhushana N. M., Rohitha Ujjinimatad

10.5120/ijca2017913011

Abstract

The field of quantum computing is growing rapidly and there is a surprisingly large literature. Research in this area includes the design of quantum reversible circuits and developing quantum algorithms for the models of quantum computing. This paper is focused on representing quantum reversible gates in matrix form. In turn these matrices can be used to develop quantum circuits with help of K-Map. Also this paper gives the historical development of quantum algorithms and basics concepts in quantum compuation.

References

Matrix Representation of Quantum Gates

Keywords

Quantum Computation, Quantum gates, Qubits