Quantum Operations

Quantum operations are not allowed to lose information.

Math Operations:

Some Math Operations are reversible.


device

Using C-NOT & reversing it!

If we know the input values, the C-NOT truth table can be used to determine the outputs.

\[
\text{C-NOT}(0, 1) = (0, 1)
\]

We can also reverse the operation!

If we know the output values, we can use the truth table to determine the input.

Now YOU try!

First, go forward:

\[
\text{C-NOT}(1, 0) = (1, 0)
\]

Now reverse the operation:

\[
\text{C-NOT}(0, 1) = (1, 0)
\]

For more Quantum Computing Zines visit:

https://www.epiqc.cs.uchicago.edu/resources/

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Reversibility - Reversibility -

Quantum Computing