

Review of: "A Generalized Space-Efficient Algorithm for Quantum Bit String Comparators"

Doocho Choi¹

¹ Korea University

Potential competing interests: No potential competing interests to declare.

This manuscript presents a method to efficiently implement QBSC, a quantum circuit that compares n-bit strings. Looking at Table 4, the quantum resource figures used in the proposed circuit design method are impressive.

Although the Quantum Delay (Depth) of the presented circuit is not the smallest, the Quantum Cost is the lowest, and since the number of ancilla qubits is fixed, more ancilla qubits are not required as the length of the bit strings to be compared.

Please add the Remark column to this table to indicate that the proposed method used MBQC. It seems reasonable to mention that Quantum Delay was calculated with equal weight given to 'elementary gate delay' and 'meter (Z-Measure gate) delay'.

I recommend this for publication.