



## Correction: MPMCT gate decomposition method reducing T-depth quickly in proportion to the number of work qubits

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The original version of this article unfortunately contained error in mathematical expression mentioned in fourth step “Further reduction step” listed under Section 3.3.

The incorrect sentence “Also, if the DBQs are large enough that some do not need to be used in other stages, Toffoli-depth for these two steps might be lowered from  $(2m - 3) \times 2$  to  $2m - 3 \times 2$  by canceling some Toffoli gates.” should read as

“Also, if the DBQs are large enough that some do not need to be used in other stages, Toffoli-depth for these two steps might be lowered from  $(4m - 8) \times 2$  to  $(2m - 3) \times 2$  by canceling some Toffoli gates.”

The original article has been corrected.

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