

Refutation of quantum computing on the unitary operator

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From: Amoroso, R.L. (2018). "Brief primer on the fundamentals of quantum computing".
vixra.org/pdf/1803.0060v1.pdf .

Evolution of the state, ψ of a quantum system in time, t is a unitary transform, $|\psi\rangle \rightarrow \hat{U}$.
Temporal evolution of a quantum system is linear because it does not depend on the state, $|\psi\rangle$.
For example, any linear combination in t of state, ψ and ϕ has the same operator

$$(\alpha |\psi\rangle + \beta |\phi\rangle) + \hat{U}(\alpha |\psi\rangle + \beta |\phi\rangle) = \alpha \hat{U}|\psi\rangle + \beta \hat{U}|\phi\rangle. \quad (2.5)$$

We reverse the order of equivalency in Eq. 2.5 by reversing the order of the antecedent with the consequent.

$$\alpha \hat{U}|\psi\rangle + \beta \hat{U}|\phi\rangle = (\alpha |\psi\rangle + \beta |\phi\rangle) + \hat{U}(\alpha |\psi\rangle + \beta |\phi\rangle). \quad (2.5.1)$$

We assume the apparatus and method of Meth8/VL4, designated *proof* value \mathbb{T} , and result table format.

LET p q r s t: $|\phi\rangle, lc_phi>$; $|\psi\rangle, lc_psi>$; α, lc_alpha ; β, lc_beta ; $\hat{U}, uc_U_circumflex$.

$$(((r\&t)\&q) + ((s\&t)\&p)) = (((r\&q) + (s\&p)) > (t\&((r\&q) + (s\&p)))) ; \quad (2.5.2)$$

FFFF FFFT FTFT FTTT

Eq. 2.5.2 as rendered is *not* tautologous as claimed.

We previously showed that when evaluating imaginary numbers on the complex plane (\mathbb{C}), the equivalency connective is replaced by the implication connective. We thereby rewrite Eq. 2.5.2.

$$(((r\&t)\&q) + ((s\&t)\&p)) > (((r\&q) + (s\&p)) > (t\&((r\&q) + (s\&p)))) ; \quad (2.5.3)$$

TTTT TTTT TTTT TTTT

Eq. 2.5.3 is tautologous, but *not* as the asserted claim of Eq. 2.5.1.