

Refutation of operator for quantum simulation of Hamiltonian spectra

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Taken from:

Santagati, R., et al. (2018). "Witnessing eigenstates for quantum simulation of Hamiltonian spectra", Sci. Adv. 2018;4:eaap9646. advances.sciencemag.org/content/4/1/eaap9646.full

We assume the apparatus and method of Meth8/VL4 to evaluate this quantum operator, excluding the scalar of $(1/(2^{0.5}))$, for:

$$|0\rangle_C \otimes \hat{I}|\Psi\rangle_T + |1\rangle_C \otimes \hat{U}|\Psi\rangle_T \quad (3.1)$$

LET: pqrstuv |1>, |0>, uc_C, uc_I-circumflex, uc_T, uc_U-circumflex, uc_Psi;
& And; @ Not equivalent, XOR; + Or

The designated proof value is T; F is contradiction.

Repeating fragments of the 128-rows of 16-valued truth tables are row-major, as horizontally.

$$((q\&r)\@(s\&(v\&t)))+(p\&r)\@(u\&(v\&t)) ; \\ \text{FFFF FTTT TTTT TTFT, FFFF FTTT FFFF FTTT, TTTT TFTT TTTT TTTF} ; \quad (3.2)$$

Eq. 3.2 as rendered is *not* tautologous. This means the quantum operator is not bivalent, but rather an operator for a probabilistic vector space.