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On the equivalence of quantum codes

Quantum codes detect and correct errors in quantum information. Some families of quantum codes are additive (or linear) codes over the field $\text{GF}(4)$. Monomial equivalence of classical codes does not quite match the notion of equivalence among quantum codes. Combinatorially this is demonstrated by constructing graph states that are not equivalent under the vertex neighbourhood complementation procedure. Only a few ad-hoc counterexamples are known so far; we aim at understanding them and extending them.