

# Erratum for “Symmetry in Quantum System Theory of Multi-Qubit Systems”

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In Lemma 3 (p. 2343) replace “A representation” with “An irreducible representation”. In Algorithm 3 (p. 2345) replace “The cases (a) and (b) are mutually exclusive” with “The cases (a) and (b) are mutually exclusive if the subalgebra generated by the Hamiltonians is given in an irreducible representation”. Theorems 3 and 4 (p. 2346) are incorrect, as a non-zero subset of the local operations is in general not given in an *irreducible* representation. Counterexamples are discussed in “Symmetry Principles in Quantum Systems Theory” of R. Zeier and T. Schulte-Herbrüggen, see [arXiv: 1012.5256](https://arxiv.org/abs/1012.5256). As a consequence, the four conditions given in the conclusion (p. 2347) are not sufficient for full controllability. All other results remain valid.