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Geometry of local orbits in three-qubit problem. (English summary)


The dynamics of three mutually separated quantum two-level systems (qubits) are described by the group of local operations $U(2) \times U(2) \times U(2)$. This group splits the space of states into local orbits. The orbit cannot change as a result of local operations on the qubits. The stabiliser of an orbit is the subgroup of operations which do not move points in an orbit. It is shown that the geometry of orbits of the local operations on three qubits depends on the form of the stabiliser and is determined by the stabiliser. In addition, discrete stabilisers for generic orbits are obtained.

Reviewed by Adán Cabello

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