

Quantum Physics

Monogamy and entanglement in tripartite quantum states

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We present an interesting monogamy equation for $(2 \otimes 2 \otimes n)$ -dimensional pure states, by which a quantity is found to characterize the tripartite entanglement with the GHZ type and W type entanglements as a whole. In particular, we, for the first time, reveals that for any quantum state of a pair of qubits, the difference between the two remarkable entanglement measures, concurrence and negativity, characterizes the W type entanglement of tripartite pure states with the two-qubit state as reduced density.

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