A “rebit” is defined as a quantum two-level system whose Hilbert space can be identified with \( \mathbb{R}^2 \) (a qubit, which is the most general quantum two-level system, can be identified with \( \mathbb{C}^2 \)). An explicit formula for the entanglement of formation of an arbitrary (mixed) state two rebits is introduced. The comparison of this formula with that for two qubits provides an insight into the nature of entanglement.

Reviewed by Adán Cabello

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