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Quantum sharability: Entanglement is less monogamous than you think PETER JOHNSON, Dartmouth College, BENJAMIN SCHUMACHER, Kenyon College, LORENZA VIOLA, Dartmouth College — One of the essential features of entanglement is monogamy. However, is it well known that there are entangled states which are not monogamous. A generalization of the monogamy property is provided by the concept of sharability. For bipartite states, we say a state (or relationship) is 1-n sharable if a subsystem can simultaneously share this relationship with n other subsystems. Any state with a limited sharing capacity is entangled, and the strictness of the limit corresponds to how entangled the state is. We present the most interesting findings of sharability of bipartite qubit and qudit states and describe an application to quantum teleportation.

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