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【554】 Entanglement in special relativistic settings

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This poster studies the entanglement of two and three spin $1/2$ particles in (special) relativistic settings, in particular for inertial observers at rest relatively to the entangled particles and in a Lorentz-boosted frame. Here spin and momentum degrees of freedom of the particles can be viewed as 4-qubit and 6-qubit states, respectively. These states are analysed in terms of their entanglement properties, i.e. how the entanglement is affected for a Lorentz-boosted observer. It turns out that there are partitions for which the entanglement is invariant, for others the opposite is true. Also the effect of Lorentz-boosts on Bell-inequalities is investigated.

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