

# Quantum Information and Elementary Particles

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## Abstract

Motivated by string theory and standard model physics, we discuss the possibility of other particles-based quantum information. A special attention is put on the consideration of the graviton in light of the gravitational wave detection. This may offer a new take in approaching quantum information using messenger particles. The construction is readily extended to higher dimensional qubits where we speculate on possible connections with open and closed string sectors in terms of quiver and graph theories, respectively. In particular, we reveal that the vectorial qubits could be associated with skeleton diagrams considered as extended quivers.

Key words: Quantum Information; String Theory; Graphs; Gauge bosons; Graviton.

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