

$$(|0\rangle_c + |1\rangle_c) | \text{ellipsoid} \rangle \rightarrow$$

$$|0\rangle_c \left| \text{cylinder with solid blue ring} \right\rangle + |1\rangle_c \left| \text{cylinder with dashed blue ring} \right\rangle =$$

Diagram illustrating the decomposition of a quantum state. The left cylinder contains a solid blue ring labeled Ψ_m . The right cylinder contains a dashed blue ring labeled $0 \oplus 0$.

$$(e^{i\phi} |0\rangle_c + |1\rangle_c) | \text{ellipsoid} \rangle$$