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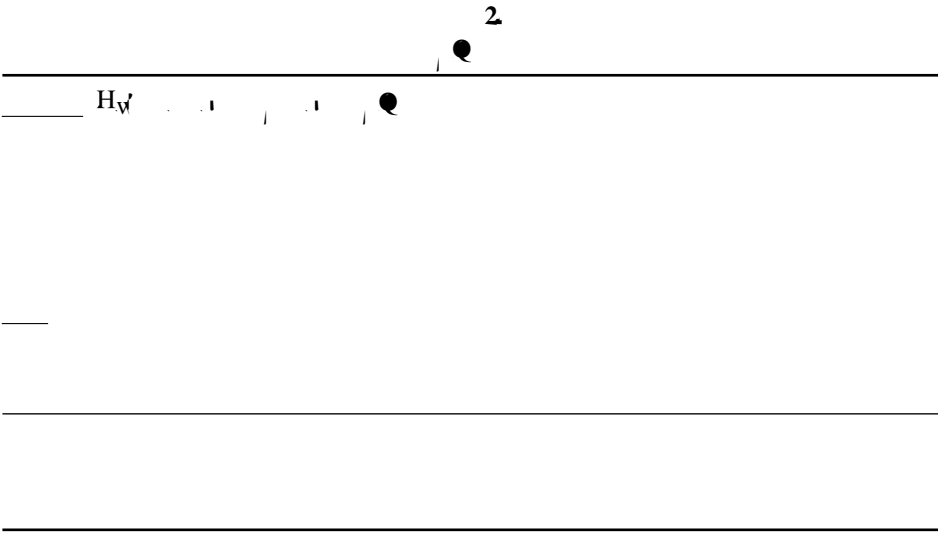
$$\begin{array}{c} \text{M} \quad \text{U} \\ \text{H} \quad \text{H} \\ \text{M}' \quad \text{U}' \\ \text{M}' \quad \text{U} \end{array}$$

Figure 1 shows several Feynman diagrams for the decay of a selectron into a gluon and a photon. The diagrams are labeled with letters M, U, H, and M_W. The diagrams illustrate different ways in which the selectron can decay into a gluon and a photon, involving various internal particles and vertices.

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$$\begin{array}{l}
\bullet \quad \langle \mathcal{A} \rangle \in \mathcal{M}_1 \text{ and } \langle \mathcal{B} \rangle \in \mathcal{M}_2 \text{ are } \mathcal{M}_1 \text{ and } \mathcal{M}_2 \text{ respectively.} \\
\bullet \quad \langle \mathcal{A} \rangle \in \mathcal{M}_1 \text{ and } \langle \mathcal{B} \rangle \in \mathcal{M}_2 \text{ are } \mathcal{M}_1 \text{ and } \mathcal{M}_2 \text{ respectively.} \\
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\end{array}$$
[illegible]



The diagram illustrates a quantum circuit for a 4-qubit system. The circuit is divided into three main sections. In the first section, the initial states are set: Qubit 1 is initialized to $|a\rangle$ and Qubit 4 is initialized to $|b\rangle$. The second section contains a sequence of quantum gates. It begins with a CNOT gate where Qubit 1 is the control and Qubit 4 is the target. This is followed by another CNOT gate where Qubit 4 is the control and Qubit 1 is the target. Then, a CNOT gate with Qubit 1 as control and Qubit 2 as target is applied, followed by a CNOT gate with Qubit 2 as control and Qubit 1 as target. Next, a CNOT gate with Qubit 1 as control and Qubit 3 as target is applied, followed by a CNOT gate with Qubit 3 as control and Qubit 1 as target. Finally, a CNOT gate with Qubit 1 as control and Qubit 4 as target is applied. The third section shows the final measurements: Qubit 1 is measured to yield state $|a'\rangle$, and Qubit 4 is measured to yield state $|b'\rangle$.

