

Diagrammatic equation showing the equivalence of two expressions involving fermion lines (blue) and a vertical orange line (representing a fermion loop or a specific interaction):

$$\text{Feynman Diagram 1} = \text{Feynman Diagram 2} = (-1) \times \text{Feynman Diagram 3}$$

The diagrams are defined as follows:

- Diagram 1:** A horizontal blue line with a vertical orange line to its right. To the right of the orange line is a blue line segment followed by a blue square box.
- Diagram 2:** A horizontal blue line with a blue square box to its right, followed by a vertical orange line.
- Diagram 3:** A horizontal blue line with a vertical orange line passing through its center, followed by a blue square box.