

The diagram illustrates the expansion of a proton-neutron vertex into a sum of meson exchange diagrams. On the left, a proton (p^+) and a neutron (n) meet at a shaded circular vertex, from which a W^- boson (represented by a wavy line) emerges. This is set equal to a sum of three diagrams:

- The first diagram shows a proton (p^+) and a neutron (n) meeting at a vertex, with a W^- boson emerging.
- The second diagram shows a proton (p^+) and a neutron (n) meeting at a vertex, with a W^- boson emerging. A dashed line labeled π (representing a pion) connects the vertex to the incoming proton line.
- The third diagram shows a proton (p^+) and a neutron (n) meeting at a vertex, with a W^- boson emerging. A dashed line labeled π^- (representing a negative pion) connects the vertex to the incoming neutron line.

The sum is followed by an ellipsis ($+\dots$), indicating that there are additional terms in the expansion.