

On-Shell Massless-Massive Correspondence: A Framework to Construct Massive Amplitudes

In the high-energy limit, the massive amplitudes can be expanded in v/E . The power counting suggests that the term with v^l corresponds to the massless amplitudes with l extra Higgs bosons. Once we know the massless amplitudes, we can use this correspondence to determine the massive amplitudes, in both renormalizable theory and effective theory with spontaneously symmetry breaking.

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