

# One-loop amplitudes with an off-shell gluon

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Factorization prescriptions that allow for non-vanishing components of the momenta of initial-state partons require matrix elements with off-shell partons. It is well known how to define and calculate such matrix elements at tree-level in a gauge invariant manner. We present the first steps to arrive at one-loop amplitudes with an off-shell gluon, necessary to reach next-to-leading order precision.

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