

On non-factorisable contributions to t-channel single-top production

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Single top quark is mainly produced through the t-channel W boson exchange $q + b \rightarrow q + t$ at LHC. This process probes Wtb vertex directly and can be used to measure the CKM matrix element V_{tb} or constrain the bottom quark PDF. The two-loop non-factorisable contribution is the last missing piece of the NNLO correction. In this talk, I will first talk about its motivation, then I will discuss the calculation procedure and techniques we applied in this work. Finally, I will present some results.

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