

Soft Gluon Resummation for associated $t\bar{t}H$ Production at the LHC

We perform resummation of soft gluon corrections to the total cross section for the process $pp \rightarrow t\bar{t}h$. The resummation is carried out at next-to-leading-logarithmic (NLL) accuracy using the Mellin space technique, extending its application to the class of $2 \rightarrow 3$ processes. We present an analytical result for the soft anomalous dimension for a hadronic production of two coloured massive particles in association with a colour singlet. We discuss the impact of resummation on the numerical prediction for the associated Higgs boson production with top quarks at the LHC.

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