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Resummation of Double-Differential Cross Sections: Jet Vetoes and Forward Rapidities

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We present a framework for resumming logarithms of the jet veto $\ln p_T^{\rm cut}/Q$ in color-singlet production at forward rapidities,

where approaching the "lopsided threshold" $Y \to Y_{\max}$ imposes additional constraints on the modes present in the usual $p_T^{\rm jet}$ factorization.

We discuss the relevant regimes and factorization theorems

and show how to consistently extend estimates of the resummation uncertainty by Y-dependent profile scales. We give numerical results for gluon fusion at $Q=m_H$ as well as for a generic heavy scalar resonance and for Drell-Yan production at selected values of Q.

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