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Erratum: Two-loop amplitudes for $t\bar{t}H$ production: the quark-initiated N_f -part

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After publication we noticed that the flux factor $1/(2\hat{s})$ was missing in the calculation of the leading order event distribution shown in figure 2 of the original publication. This has been corrected in figure 1 shown below. As this correction only affects the LO event distribution, which was shown for illustration, all other results remain unchanged.

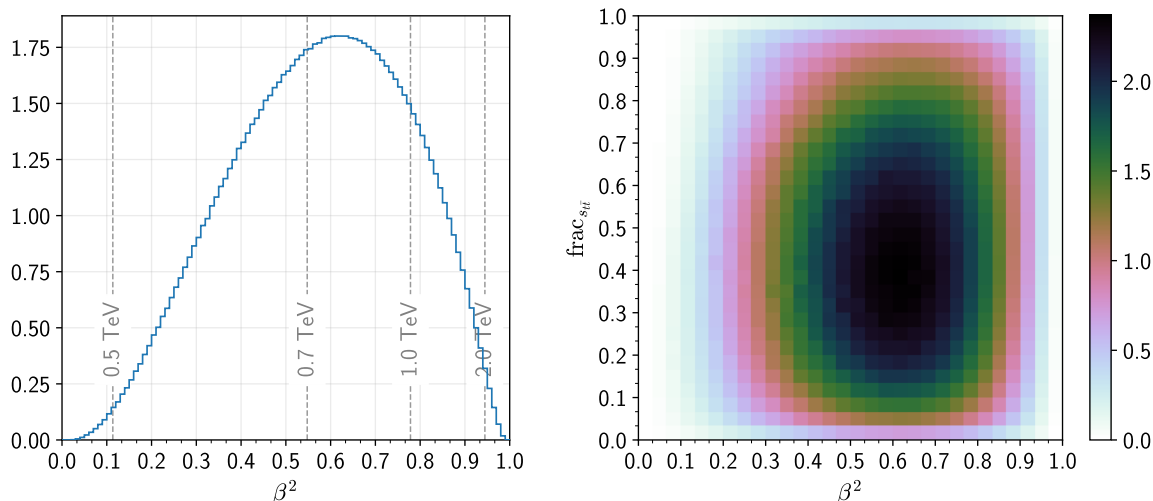


Figure 1. Event probability distribution in β^2 (left), and β^2 and frac_{st} (right), according to the LO $q\bar{q} \rightarrow t\bar{t}H$ amplitude. For this plot we take the energy of incoming quarks to be distributed according to the ABMP16 parton distribution functions [1] (which we evaluate via LHAPDF [2]), with the collision energy set to 13.6 TeV. We have also applied cuts on the top quark momenta (as we calculate with on-shell top-quarks) in line with those reported in [3, 4]: we enforce a minimal transverse momentum of 25 GeV, a maximal rapidity of 4.5, and a separation ΔR in rapidity and azimuthal angle between the top quarks of $\Delta R > 0.4$. These cuts remove about 3% of the events, and mostly affect the low- β region.

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References

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