Erratum

Erratum to: “One-loop weak corrections to $\gamma/Z$ hadro-production at finite transverse momentum”

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The results presented in Fig. 4 of the original paper mistakenly refer to a $pp$ collider of $\sqrt{s}_{pp} = 2$ TeV instead of a $p\bar{p}$ one. The correct results for the effects of the $O(\alpha_S \alpha^2_{em})$ terms relatively to the $O(\alpha_S \alpha_{EW})$ Born results ($\alpha_{em}$ replaces $\alpha_{EW}$ for photons), as well as the absolute magnitude of the latter, as a function of the transverse momentum at Tevatron are shown in Fig. 1 below. The corrections are of order $-6\%$ for $Z + j$ production at Tevatron for $p_T \approx 300$ GeV. Since both the size of the corrections and the cross section for moderate values of $p_T$ are similar to those for a $pp$ collider, our conclusions that such effects will be hard to observe at Tevatron but will indeed be observable at LHC are unchanged.
Fig. 1. The transverse momentum dependence of the γ- and Z-boson cross sections in $q\bar{q} \rightarrow gV$ and $q(\bar{q})g \rightarrow q(\bar{q})V$ at LO (top frame) and the size of the one-loop weak corrections (bottom frame), at Tevatron ($\sqrt{s}_{\bar{p}p} = 2$ TeV). Notice that the pseudorapidity range of the jet in the final state is limited to $|\eta| < 3$.

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References