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## Transverse momentum spectra of gauge bosons

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We study the transverse momentum spectra of gauge bosons ( $Z$ ,  $\gamma^*$ , Higgs) in PP collisions in the regime of low transverse momentum. We develop a scheme of resummation allowing us to choose the factorization scale for virtuality in momentum space which is then applied to obtain the transverse momentum spectra for the Drell-Yan and Higgs at NNLL accuracy. All the schemes of resummation developed so far in literature implement the resummation numerically. Using our scheme, we obtain for the first time, an analytic formula for these resummed cross sections at each order of resummation. Finally, a comparison with other resummation schemes is presented along with a discussion of possible non-perturbative effects.

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