Contribution ID: **129** Type: **Talk**

Drell-Yan production at NLO in the Parton Branching method at low and high DY masses and low and high $\sqrt{s}$$

Saturday, 5 September 2020 11:00 (25 minutes)

Transverse Momentum Dependent (TMD) parton distributions obtained from the Parton Branching (PB) method are combined with next-to-leading-order (NLO) calculations of Drell-Yan (DY) production. We apply the MC@NLO method for the hard process calculation and matching with the PB TMDs.
We compute predictions for the transverse momentum of Z bosons and Drell-Yan (DY) production. The theoretical predictions agree well, within uncertainties, with measurements at the Large Hadron Collider (LHC). We also compute the transverse momentum spectrum of low mass DY production at low center-of-mass energies $\sqrt{s}$ and compare our predictions with experimental measurements at low DY mass, and find very good agreement. In addition we use the low mass DY measurements at low $\sqrt{s}$ to determine the width q_s of the intrinsic Gauss distribution of the PB -TMDs at low evolution scales and find values that have earlier been used in applications of PB -TMDs to high-energy processes at the LHC and HERA.

Is this abstract from experiment?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

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Session Classification: Workshop on QCD