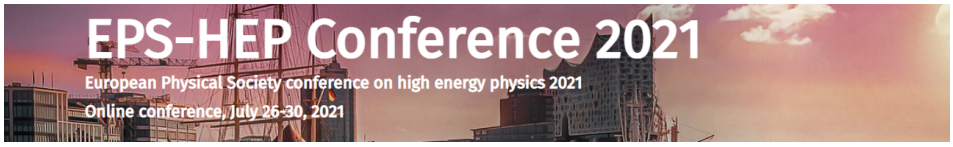

Contribution ID: **788** Type: **Parallel session talk**

Application of parton showers obtained with the Parton Branching approach to Drell Yan + jets production

Tuesday 27 July 2021 16:15 (15 minutes)

Calculations of Drell-Yan production at next-to-leading (NLO) order have been combined with transverse Momentum Dependent (TMD) distributions obtained with the Parton Branching (PB). For the first time, the predictions show a remarkable agreement with DY measurements across a wide range of DY mass and center of mass energies, from experiments like NuSea, R209, Phenix, CMS and ATLAS. Uncertainties from the TMD fit and from missing higher orders in the calculation are also determined. We also show predictions for Z+jet and multijet measurements, where especially angular correlations, sensitive to TMDs, are well described. We show that the PB TMDs together with a PB TMD parton shower and higher order matrix elements allow a very good description of measurements over a wide kinematic range.

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Collaboration / Activity

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Session Classification: T06: QCD and Hadronic Physics

Track Classification: QCD and Hadronic Physics