## **Resummation, Evolution, Factorization 2022**



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## PB method and TMD multi-jet merging at NLO

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A new NLO multi-jet merging method is presented that allows to combine Parton-Branching transverse momentum dependent (PB-TMD) parton distributions with vector+jets calculations at NLO. Double counting in exclusive calculations is avoided by removing resolvable contributions, with respect to the merging scale, from the corresponding multiplicity at NLO. The merging performance is assessed using differential jet rate observables and its systematic error is estimated by varying the merging scale. We compare the new results with the PB-TMD merging calculations at LO and with the experimental LHC data corresponding to Drell Yan + jets."

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