

Matching NLO calculations with NLL Panscales showers with initial-state partons

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The matching between fixed-order calculations and parton shower simulations represents one of the key building blocks for the construction of accurate and fully-differential predictions at colliders. While NLO matching with leading logarithmic accurate parton showers has been a solved problem for many years, there is currently no standard matching procedure with next-to-logarithmic (NLL) accurate showers. In this talk, I will present how to obtain NLO accurate predictions matched to NLL PanScales parton showers with efficient and positive-definite techniques for deep inelastic scattering and colour-singlet production in hadron collisions. Such a matching is a fundamental ingredient for the formulation of next-to-NLL showers.

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