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TMD PB method: a MC approach based on TMD factorization

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Since 1980s, TMD factorization provides a stringent mathematical formalism to treat 3D hadron structure. However, the baseline MC generators still rely on 1D collinear factorization. The TMD Parton Branching (PB) method was developed to include elements of TMD physics in MC generators.

In this talk, I discuss the Sudakov form factor of the TMD PB evolution equation and its relation to that of Collins-Soper-Sterman. I focus especially on the non-perturbative input and present the recent results on intrinsic-kt vs center-of-mass (in)dependence in different approaches.

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