

On the sensitivity of energy-energy correlation to TMD dynamics

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The transverse momentum dependent factorization framework provides for energy-energy correlation in the back-to-back limit the highest order result ever achieved in perturbation theory: $N^4\text{LL}+N^3\text{LO}$.

We implemented this setup, using the ζ -prescription within ARTEMIDE's code, to study the possibilities of obtaining information on the Collins-Soper kernel and the strong coupling constant through a global fit to all available experimental data .

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