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## On the normalization of unintegrated parton densities

*Thursday 3 November 2022 17:40 (15 minutes)*

I will present the KMRW formalism and discuss some of its issues, including the Sudakov factor larger than one and the mismatch between the integral and differential definitions. These issues have been discussed recently, but a fully satisfying solution was still missing.

I argue and show with an explicit example that changing the normalization condition from  $\int^{\mu^2} dk^2 F(x, k^2; \mu^2)$  to  $\int^{\infty} dk^2 F(x, k^2; \mu^2)$  solves all the issues at once.

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