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# High-precision numerical estimates of Mellin-Barnes integrals for Mellin moments of the structure functions using a stationary phase contour

Within the framework of the Mellin transform method we investigate the effective contours that allow to accelerate a numerical computation of Mellin-Barnes (MB) integrals significantly.

We consider the case of a finite asymptotic behavior of the contour of the stationary phase, which start at the saddle point, in the limit  $\text{Re}(z)$  tends minus infinity.

The MB integrals arising for the nonsinglet structure functions correspond to this case. We propose a new approximation for the contour of the stationary phase. The asymptotic behavior of the constructed contour coincides with the contour of the stationary phase, when  $\text{Re}(z)$  tends minus infinity. In order to clarify the reason of the high efficiency of the application of the asymptotic contour, using the stationary phase contour, we consider the exactly solvable example giving behavior close to that which arises in the QCD analysis of DIS data.

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