## Theory challenges for LHC physics



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## β-expansion in QCD and generalization of BLM optimization procedure

Sunday 26 July 2015 15:00 (30 minutes)

We discuss generalizations of the Brodsky–Lepage–Mackenzie optimization procedure for renormalization group invariant quantities. In this respect, we discuss in detail the features and construction of the  $\{\beta\}$ -expansion presentation instead of the standard perturbative series with regard to the Adler D- function and Bjorken polarized sum rules S obtained in the order of  $O(\frac{4}{s})$ . Based on the  $\{\beta\}$ -expansion, we analyze different schemes of optimization, numerically illustrating their results

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