

The R^* -method: Recent applications and developments

Tuesday, September 10, 2019 11:00 AM (25 minutes)

The R^* -method is a powerful tool to calculate anomalous dimensions of local QFTs. I will present new results which have been obtained with the method, such as the first few Mellin moments of splitting functions at N4LO, which also allowed us to obtain a first numerical estimate of the cusp anomalous dimension at five loops, and a calculation of the anomalous dimension of Weinberg's dimension-6 gluonic operator at 2 and 3 loops which is relevant for EDM measurements. Furthermore, I will present a new Hopf algebraic formulation which generalizes the Connes-Kreimer Hopf algebra.

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