

Resummed non-global logs in QCD observables from the BMS equation

Non-global logs are very common in observables that are used in precision measurements at particle collider experiments. Perturbative convergence is spoiled by the presence of these calculations necessitating a difficult all-orders resummation. The integro-differential Banfi-Marchesini-Smye equation, valid in the Large- N_c approximation and usually solved numerically, provides us with means to account for these logs to all orders at leading-log accuracy. In this talk I present an analytic solution of the BMS equation as a perturbative series in the exponent. This allows us to perform an accurate partial resummation of the large non-global logs in several QCD observables in e^+e^- annihilation processes as well as hadronic collisions. I also discuss the possible extension of this work to the solution of the Weigert equation which includes finite- N_c corrections and gives more accurate description of the non-global logarithms.

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