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Simple implementation of color coherence for the resummation of soft BDMPS-Z gluons

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The evolution of QCD jets under the influence of a dense colored medium leads to the non trivial modification of the emission spectrum. In the multiple soft scattering regime, for sufficiently large mediums, soft and wide angle emissions can be resummed, at large number of colors, since the emissions become independent up to τ_{br}/L corrections. Similarly to DGLAP evolution, such cascades correspond to pure Markovian processes and therefore interferences between partons are neglected. This constraint means that color coherence effects are absent. In the vacuum this coherence effect is critical to guarantee that the shower is angular ordered.

In this talk, we present a simple procedure to implement into the rate equations corrections coming from the color (de)coherence of the medium cascade. The final equation we obtain is remarkably simple and open to direct physical interpretation.

Collaboration (if applicable)

Track

Jets and High Momentum Hadrons

Contribution type

Contributed Talk

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