



Contribution ID: 12

Type: **Contributed talk**

Threshold resummation for CGC hadron production

Thursday 2 December 2021 11:10 (20 minutes)

The talk will include our study on the single hadron inclusive production in the forward rapidity region in proton-nucleus collisions. We find the long-standing negative cross section at next-to-leading-order (NLO) is driven by the large negative threshold logarithmic contributions. We established a factorization theorem for resumming these logarithms with systematically improvable accuracy within the color glass condensate formalism. We demonstrate how the threshold leading logarithmic accuracy can be realized by a suitable scale choice in the NLO results. The NLO spectrums with the threshold logarithms resummed remain positive and impressive agreements with experimental data are observed. And besides the single hadron production, the talk may also contain the results of our recent work: the NLO fixed order calculation of the E distribution of single jet production in pA collisions and the related threshold resummation.

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Session Classification: Parallel Session