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Sudakov logarithms from double lightcone OPE

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Energy-Eenrgy Correlator exhibits Sudakov logarithms in the back-to-back limit. At leading power, these logarithms can be resummed to all orders using TMD factorization method. However, going beyond the leading power remains challenging in this approach. In this talk I will introduce a novel approach to resum Sudakov logarithms in EEC, both at leading and subleading power. I will show that the Sudakov logarithms in EEC are intimately related to the double lightcone limit of four-point Wightman correlators in position space, where the four points are connected consecutively by null separation. We develop a systematic method to resum the logarithms at leading and subleading power by exploiting the conformal symmetry of massless QCD in the classical limit. This talk is based on arXiv:2301.03616 and ongoing work.

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