## Diffraction and Low-x 2022



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## Soft and next-to-soft resummation for QCD observables

Wednesday, 28 September 2022 17:40 (20 minutes)

In this talk, I will disucss a framework to resum soft and next-to-soft enhanced logarithms to all orders in perturbative QCD. These large logarithms are comprises of distributions log^i (1–z)/(1–z) resulting from soft plus virtual (SV) and logarithms of the kind log<sup>i</sup>(1–z) from next to SV (NSV) contributions. We use collinear factorisation and renormalisation group invariance as the building blocks to achieve this. Using this framwork we study the numerical implications of NSV corrections in the context of Drell-Yan process and Higgs boson productions at LHC. The talk is based on the works : Phys.Rev.D 105 (2022) 9, 094035, Eur.Phys.J.C 82 (2022) 3, 234, Phys.Rev.D 105 (2022) 9, L091503.

**Presenter:** ABDUL HAMEED, Ajjath (LPTHE, Paris)

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