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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 discuss a framework to resum soft and next-to-soft enhanced logarithms to all orders in perturbative QCD. These large logarithms are comprised of distributions  $\log^i(1-z)/(1-z)$  resulting from soft plus virtual (SV) and logarithms of the kind  $\log^i(1-z)$  from next to SV (NSV) contributions. We use collinear factorisation and renormalisation group invariance as the building blocks to achieve this. Using this framework 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.

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