Particle Physics Seminars at IJCLab

Vendredi 24 Janvier 2025, 11 :00
IJCLAB, 100/2-A201 - Salle A201 (IJCLab)(https ://indico.ijclab.in2p3.fr/event/11295/)
Domaines : hep-ph

Titre : *High-energy behavior of massive QCD/QED amplitudes*

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Résumé : *In this talk, I will first talk about a factorization formula for gauge-theory scattering amplitudes up to two loops in the high-energy boosted limit at leading power, which is then used to give the prediction for the production of a Higgs boson in association with a top-antitop quark pair (ttH) at next-to-next-to-leading order (NNLO). Then, I will discuss the factorization and calculation of two-loop amplitudes for ttH production at hadron colliders in the high-energy boosted limit. By combining the contributions from real emissions, our results can be utilized to compute the NNLO differential cross sections for ttH production in the high-energy boosted limit. Finally, I will talk about the progress on the factorization in the high-energy boosted limit at the next-to-leading power (NLP).*