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Towards NNLO QCD corrections for the production of a heavy-quark pair in association with a massive boson

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In the past few years, remarkable progresses in multi-loop calculations have opened the doors to the computation of massless two-loop five-point scattering amplitudes, allowing to complete NNLO QCD predictions for complicated $2 \to 3$ processes like tri-photon, tri-jet and di-photon plus jet production. Very recently, also the two-loop five-point scattering amplitudes with one external massive leg have been made available in literature.
Due to these successful progresses in multi-loop computations, it is reasonable thinking that also two-loop amplitudes with several massive legs will be accessible in the next future, allowing to complete NNLO QCD computations for processes with massive final-state particles.
In this talk we will discuss about recent progresses in NNLO QCD computations for processes where a heavy-quark pair is produced in association with a massive boson.

Declaration

I certify that I have checked that I am authorised to submit the abstract with the listed co-authors with their current affiliations

Change of Speaker

I understand that change of speaker is allowed provided that no participant gives more than one talk. Otherwise, we will ask the speaker to choose between one or the other abstract to be presented.

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