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Top pair production at NNLO matched to parton showers

Monday 26 July 2021 14:45 (15 minutes)

We present the first matched computation of top-quark pair production at next-to-next-to-leading order (NNLO) in QCD with all-order radiative corrections as implemented via parton-shower (PS) simulations. This result has been obtained by constructing the MiNNLOPS method for the production of heavy quarks, which constitutes the first NNLO+PS prediction for reactions with colour charges in the final state in hadronic collisions. Our results are of crucial importance for LHC phenomenology, while also representing an important step towards the NNLO+PS simulation of other hadronic processes with colour charges in the final state.

First author

Javier Mazzitelli

Email

javimazzitelli@gmail.com

Collaboration / Activity

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Primary author: MAZZITELLI, Javier

Presenter: MAZZITELLI, Javier

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