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# Progress on NNLO+PS predictions for top-quark pair production and decay

*Wednesday 26 March 2025 11:00 (20 minutes)*

In this presentation, I will discuss recent advancements in NNLO+PS predictions for top-quark pair production and decay within the MiNNLO framework. MiNNLO provides a robust method for incorporating next-to-next-to-leading order (NNLO) QCD corrections directly into fully differential predictions, offering unprecedented accuracy. This approach enables a consistent treatment of both production and decay processes, ensuring realistic event simulation compatible with experimental analyses. I will highlight the theoretical developments, key challenges, and the impact of these improvements on phenomenological studies, with a focus on their relevance to the increasing precision demands of LHC experiments.

**Author:** SIGNORILE , Chiara

**Presenter:** SIGNORILE , Chiara

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