



Contribution ID: 739

Type: **Parallel Talk**

Absolute-mass threshold resummation for the production of four top quarks

Friday, 8 July 2022 12:40 (15 minutes)

In this talk we show our results for the soft-gluon threshold resummation of the four-top production process. This is the first time threshold resummation is applied to a $2 \rightarrow 4$ type hadronic process. By matching the next-to-leading logarithmic (NLL) result to the available next-to-leading order (NLO) result, we achieve NLO+NLL' precision for the total cross section, where we take into account $\mathcal{O}(\alpha_s)$ terms that are constant at threshold. The threshold-resummed result shows a decreased scale dependence when compared to the fixed next-to-leading-order calculation.

In-person participation

Yes

Primary authors: VAN BEEKVELD, Melissa (University of Oxford); Prof. KULESZA, Anna (Munster University); Ms MORENO VALERO, Laura (Munster University)

Presenter: Ms MORENO VALERO, Laura (Munster University)

Session Classification: Top quark and EW Physics

Track Classification: Top quark and EW Physics