

CMS

$\sigma_{t\bar{t}}$ summary, $\sqrt{s} = 5.02$ TeV

NNLO+NNLL PRL 110 (2013) 252004
 $m_{\text{top}} = 172.5$ GeV, $\alpha_s(M_Z) = 0.118 \pm 0.001$
 ■ scale uncertainty
 ■ scale \oplus PDF \oplus α_s uncertainty

total stat

$\sigma_{t\bar{t}} \pm (\text{stat}) \pm (\text{syst}) \pm (\text{lumi})$

CMS, e+jets

$L_{\text{int}} = 302 \text{ pb}^{-1}$



$61.8 \pm 2.6 \pm 3.6 \pm 1.2 \text{ pb}$

CMS, μ +jets

$L_{\text{int}} = 302 \text{ pb}^{-1}$



$63.6 \pm 2.1 \pm 2.7 \pm 1.2 \text{ pb}$

CMS, l+jets

$L_{\text{int}} = 302 \text{ pb}^{-1}$



$62.5 \pm 1.6 \pm 2.5 \pm 1.2 \text{ pb}$

CMS, $e\mu$

JHEP 04 (2022) 144, $L_{\text{int}} = 302 \text{ pb}^{-1}$



$60.7 \pm 5.0 \pm 2.8 \pm 1.1 \text{ pb}$

CMS, combined

$L_{\text{int}} = 302 \text{ pb}^{-1}$



$62.3 \pm 1.5 \pm 2.4 \pm 1.2 \text{ pb}$

ATLAS, (ee, $\mu\mu$, $e\mu$)

JHEP 06 (2023) 138, $L_{\text{int}} = 257 \text{ pb}^{-1}$



$65.7 \pm 4.5 \pm 1.6 \pm 1.2 \text{ pb}$

ATLAS, l+jets

JHEP 06 (2023) 138, $L_{\text{int}} = 257 \text{ pb}^{-1}$



$68.2 \pm 0.9 \pm 2.9 \pm 1.1 \text{ pb}$

ATLAS, combined

JHEP 06 (2023) 138, $L_{\text{int}} = 257 \text{ pb}^{-1}$



$67.5 \pm 0.9 \pm 2.3 \pm 1.1 \text{ pb}$

PDF4LHC21 J.Phys.G 49 (2022) 080501

NNPDF4.0 EPJC 82 (2022) 428

MSHT20 EPJC 81 (2021) 341

CT18 PRD 103 (2021) 014013

20

40

60

80

100

120

$\sigma_{t\bar{t}}$ (pb)