

CMS Preliminary

$\sigma_{t\bar{t}}$ summary, $\sqrt{s} = 13$ TeV

Feb 2018

..... 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



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

CMS, dilepton $e\mu$

PRL 116 (2016) 052002, $L_{\text{int}} = 43 \text{ pb}^{-1}$, 50 ns



$746 \pm 58 \pm 53 \pm 36 \text{ pb}$

CMS, dilepton $e\mu$

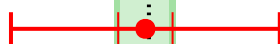
EPJC 77 (2017) 172, $L_{\text{int}} = 2.2 \text{ fb}^{-1}$, 25 ns



$815 \pm 9 \pm 38 \pm 19 \text{ pb}$

CMS, l+jets *

CMS-PAS TOP-15-005, $L_{\text{int}} = 42 \text{ pb}^{-1}$, 50 ns



$836 \pm 27 \pm 84 \pm 100 \text{ pb}$

CMS, l+jets

JHEP 09 (2017) 051, $L_{\text{int}} = 2.2 \text{ fb}^{-1}$, 25 ns



$888 \pm 2 \pm 26 \pm 20 \text{ pb}$

CMS, all-jets *

CMS-PAS TOP-16-013, $L_{\text{int}} = 2.53 \text{ fb}^{-1}$



$834 \pm 25 \pm 118 \pm 23 \text{ pb}$

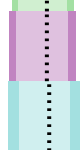
NNPDF3.0 JHEP 04 (2015) 040

MMHT14 EPJC 75 (2015) 5

CT14 PRD 93 (2016) 033006

ABM12 PRD 89 (2015) 054028
 $[\alpha_s(m_Z) = 0.113]$

* Preliminary



$\sigma_{t\bar{t}}$ [pb]

200

400

600

800

1000

1200

1400