

ATLAS+CMS Preliminary

LHCtop WG

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

May 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



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

ATLAS, dilepton $e\mu$

PLB 761 (2016) 136, $L_{\text{int}} = 3.2$ fb $^{-1}$

$818 \pm 8 \pm 27 \pm 19$ pb

ATLAS, dilepton $ee/\mu\mu$ *

ATLAS-CONF-2015-049, $L_{\text{int}} = 85$ pb $^{-1}$

$749 \pm 57 \pm 79 \pm 74$ pb

ATLAS, $l+jets$ *

ATLAS-CONF-2015-049, $L_{\text{int}} = 85$ pb $^{-1}$

$817 \pm 13 \pm 103 \pm 88$ pb

CMS, dilepton $e\mu$

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

$746 \pm 58 \pm 53 \pm 36$ pb

CMS, dilepton $e\mu$

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

$815 \pm 9 \pm 38 \pm 19$ pb

CMS, $l+jets$

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

$888 \pm 2^{+26}_{-28} \pm 20$ pb

CMS, all-jets *

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

$834 \pm 25 \pm 118 \pm 23$ 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

