

..... NNLO+NNLL PRL 110 (2013) 252004, PDF4LHC
 $m_{top} = 172.5$ GeV

■ scale uncertainty
 ■ scale \oplus PDF \oplus α_S uncertainty



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

ATLAS, dilepton $e\mu$

ATLAS-CONF-2016-005 $L_{\text{int}}=3.2 \text{ fb}^{-1}$



$803 \pm 7 \pm 27 \pm 45 \text{ pb}$

ATLAS, dilepton $ee/\mu\mu$

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



$749 \pm 57 \pm 79 \pm 74 \text{ pb}$

ATLAS, $l+jets$

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



$817 \pm 13 \pm 103 \pm 88 \text{ pb}$

CMS, dilepton $e\mu$

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



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

CMS, $l+jets$

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



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

Effect of LHC beam energy uncertainty: 12 pb
 (not included in the figure)

400 600 800 1000 1200

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