

**ATLAS+CMS Preliminary**  
LHC<sub>top</sub>WG

$\sigma_{t\bar{t}}$  summary,  $\sqrt{s} = 13$  TeV June 2023

..... NNLO+NNLL PRL 110 (2013) 252004  
**PDF4LHC21,  $m_{\text{top}} = 172.5$  GeV,  $\alpha_s(M_Z) = 0.118 \pm 0.001$**   
 scale uncertainty  
 scale  $\oplus$  PDF  $\oplus$   $\alpha_s$  uncertainty



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

**ATLAS, dilepton  $e\mu$**

arXiv:2303.15340,  $L_{\text{int}} = 140 \text{ fb}^{-1}$

$829 \pm 1 \pm 13 \pm 8 \text{ pb}$

**ATLAS,  $l$ +jets**

PLB 810 (2020) 135797,  $L_{\text{int}} = 139 \text{ fb}^{-1}$

$830 \pm 0.4 \pm 36 \pm 14 \text{ pb}$

**ATLAS, all-jets**

JHEP 01 (2021) 033,  $L_{\text{int}} = 36.1 \text{ fb}^{-1}$

$864 \pm 4.3 \pm 126 \pm 18 \text{ pb}$

**CMS, dilepton  $e\mu$**

EPJC 79 (2019) 368,  $L_{\text{int}} = 35.9 \text{ fb}^{-1}$

$803 \pm 2 \pm 25 \pm 20 \text{ pb}$

**CMS, dilepton  $\tau+e/\mu$**

JHEP 02 (2020) 191,  $L_{\text{int}} = 35.9 \text{ fb}^{-1}$

$781 \pm 7 \pm 62 \pm 20 \text{ pb}$

**CMS,  $l$ +jets**

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

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

**CMS, all-jets \***

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

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

**CMS,  $l$ +jets**

PRD 104 (2021) 092013,  $L_{\text{int}} = 137 \text{ fb}^{-1}$

$791 \pm 1 \pm 21 \pm 14 \text{ pb}$

\* Preliminary

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

200 400 600 800 1000 1200 1400