

# ATLAS+CMS Preliminary

LHC<sub>top</sub>WG

$\sigma_{t\bar{t}}$  summary,  $\sqrt{s} = 5.02$  TeV June 2023

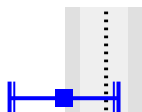
..... NNLO+NNLL PRL 110 (2013) 252004  
PDF4LHC21,  $m_{\text{top}} = 172.5$  GeV,  $\alpha_s(M_Z) = 0.118 \pm 0.001$   
■ scale  $\oplus$  PDF  $\oplus$   $\alpha_s^{\text{top}}$  uncertainty



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

**ATLAS, dilepton**

arXiv:2207.01354,  $L_{\text{int}} = 257 \text{ pb}^{-1}$



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

**ATLAS, l+jets**

arXiv:2207.01354,  $L_{\text{int}} = 257 \text{ pb}^{-1}$



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

**ATLAS combined**

arXiv:2207.01354,  $L_{\text{int}} = 257 \text{ pb}^{-1}$



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

**CMS, l+jets**

JHEP 03 (2018) 115  $L_{\text{int}} = 27.4 \text{ pb}^{-1}$



$68.9 \pm 6.5 \pm 6.1 \pm 1.6 \text{ pb}$

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

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**

JHEP 04 (2022) 144,  $L_{\text{int}} = 27.4 - 302 \text{ pb}^{-1}$



$63.0 \pm 4.1 \pm 3.0 \text{ pb}$

20

40

60

80

100

120

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