



$\sigma_{\text{meas.}} \pm (\text{stat.}) \pm (\text{syst.})$

$\text{tt}\bar{W}$

$0.87 \pm 0.13 \pm 0.14$  pb

$0.77^{+0.12}_{-0.11} \ ^{+0.13}_{-0.12}$  pb

$\text{tt}\bar{Z}$

$0.99 \pm 0.05 \pm 0.08$  pb

$0.95 \pm 0.05 \pm 0.06$  pb

$\text{tt}\bar{\gamma}+tW\gamma$

$0.040 \pm 0.001 \ ^{+0.003}_{-0.002}$  pb  $\times 20$

$\text{tt}\bar{\gamma}$

$0.80 \pm 0.01 \pm 0.05$  pb



ATLAS,  $L_{\text{int}} = 36.1 \text{ fb}^{-1}$

Phys. Rev. D 99 (2019) 072009

CMS,  $L_{\text{int}} = 35.9 \text{ fb}^{-1}$

JHEP 08 (2018) 011

ATLAS,  $L_{\text{int}} = 139 \text{ fb}^{-1}$

arXiv:2103.12603

CMS,  $L_{\text{int}} = 77.5 \text{ fb}^{-1}$

JHEP 03 (2020) 056

ATLAS,  $L_{\text{int}} = 139 \text{ fb}^{-1}$ , Vis 1

JHEP 09 (2020) 049

CMS,  $L_{\text{int}} = 137 \text{ fb}^{-1}$ , Vis 2

CMS-PAS-TOP-18-010\*

$\sigma_{\text{ttV}}$  [pb]