

Inclusive cross-section [pb]

ATLAS+CMS Preliminary

LHC_{top}WG

Single top-quark production
November 2018

t-channel

tW

s-channel

- ATLAS t-channel
PRD 90 (2014) 112006, EPJC 77 (2017) 531,
JHEP 04 (2017) 086
 - CMS t-channel
JHEP 12 (2012) 035, JHEP 06 (2014) 090,
PLB 772 (2017) 752
 - ATLAS tW
PLB 716 (2012) 142, JHEP 01 (2016) 064,
JHEP 01 (2018) 063
 - CMS tW
PRL 110 (2013) 022003, PRL 112 (2014) 231802,
JHEP 10 (2018) 117
 - ★ LHC combination, tW
ATLAS-CONF-2016-023, CMS-PAS-TOP-15-019
 - ▲ ATLAS s-channel
ATLAS-CONF-2011-118 95% CL,
PLB 756 (2016) 228
 - ▼ CMS s-channel
JHEP 09 (2016) 027 95% CL
 - × 7+8 TeV combined fit 95% CL
 - NNLO PLB 736 (2014) 58
scale uncertainty
 - - - NLO + NNLL PRD 83 (2011) 091503,
PRD 82 (2010) 054018, PRD 81 (2010) 054028
tW: $t\bar{t}$ contribution removed
scale \oplus PDF \oplus α_s uncertainty
 - NLO NPPS205 (2010) 10, CPC191 (2015) 74
 $\mu_R = \mu_F = m_{top}$,
CT10nlo, MSTW2008nlo, NNPDF2.3nlo
tW: p_T^b veto for $t\bar{t}$ removal = 60 GeV and $\mu_F = 65$ GeV
 - scale uncertainty
 - scale \oplus PDF \oplus α_s uncertainty
 - stat total
- $m_{top} = 172.5$ GeV

1

10²

10

7

8

13

\sqrt{s} [TeV]