

Inclusive cross-section [pb]

ATLAS+CMS Preliminary LHC_{top}WG

Single top-quark production

Nov 20 2015

10^2

10

1

t-channel

Wt

s-channel

- ATLAS t-channel
PRD90(2014) 112006, ATLAS-CONF-2014-007
- CMS t-channel
JHEP12(2012) 035, JHEP06(2014) 090,
CMS-PAS-TOP-15-004
- ATLAS Wt
PLB716(2012) 142, arXiv:1510.03752
- CMS Wt
PRL110(2013) 022003, PRL112(2014) 231802
- ★ LHC combination, Wt
ATLAS-CONF-2014-052, CMS-PAS-TOP-14-009
- ▲ ATLAS s-channel
ATLAS-CONF-2011-118 95% C.L.,
arXiv:1511.05980
- ▼ CMS s-channel, 95% C.L.
CMS-PAS-TOP-13-009
- NNLO PLB736(2014) 58
 $m_{\text{top}} = 172.5 \text{ GeV}$, MSTW2008nlo
scale uncertainty
- NLO + NNLL PRD83(2011) 091503,
PRD82(2010) 054018, PRD81(2010) 054028
 $m_{\text{top}} = 172.5 \text{ GeV}$, MSTW2008nlo
Wt: $t\bar{t}$ contribution removed
scale \oplus PDF \oplus α_s uncertainty
- NLO NP205(2010) 10, CPC191(2015) 74
 $m_{\text{top}} = 172.5 \text{ GeV}$, $\mu_R = \mu_F = m_{\text{top}}$,
CT10nlo, MSTW2008nlo, NNPDF2.3nlo (PDF4LHC)
Wt: p_T^b veto for $t\bar{t}$ removal = 60 GeV
and $\mu_F = 65 \text{ GeV}$
- scale uncertainty
- scale \oplus PDF \oplus α_s uncertainty
- stat syst

All exp. results are w.r.t. $m_{\text{top}} = 172.5 \text{ GeV}$

\sqrt{s} [TeV]

