

Inclusive cross-section [pb]

ATLAS+CMS Preliminary

LHCtopWG

Single top-quark production
September 2019

10^2

10

7

8

13

\sqrt{s} [TeV]

t-channel

tW

s-channel

t-channel

- ATLAS PRD90(2014)112006, EPJC 77 (2017)531, JHEP 04 (2017)086
- CMS JHEP 12 (2012)035, JHEP 06 (2014)090, arXiv:1812.10514
- ◆ **ATLAS+CMS** JHEP 05 (2019)088

tW

- ATLAS PLB 716 (2012)142, JHEP 01(2016)064, JHEP 01(2018)063
- CMS PRL 110 (2013)022003, PRL 112 (2014)231802, JHEP 10(2018)117
- ◆ **ATLAS+CMS** JHEP 05 (2019)088

s-channel

- ATLAS PLB 756 (2016)228
- CMS JHEP 09(2016)027
- ◆ **ATLAS+CMS** JHEP 05 (2019)088

--- 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

