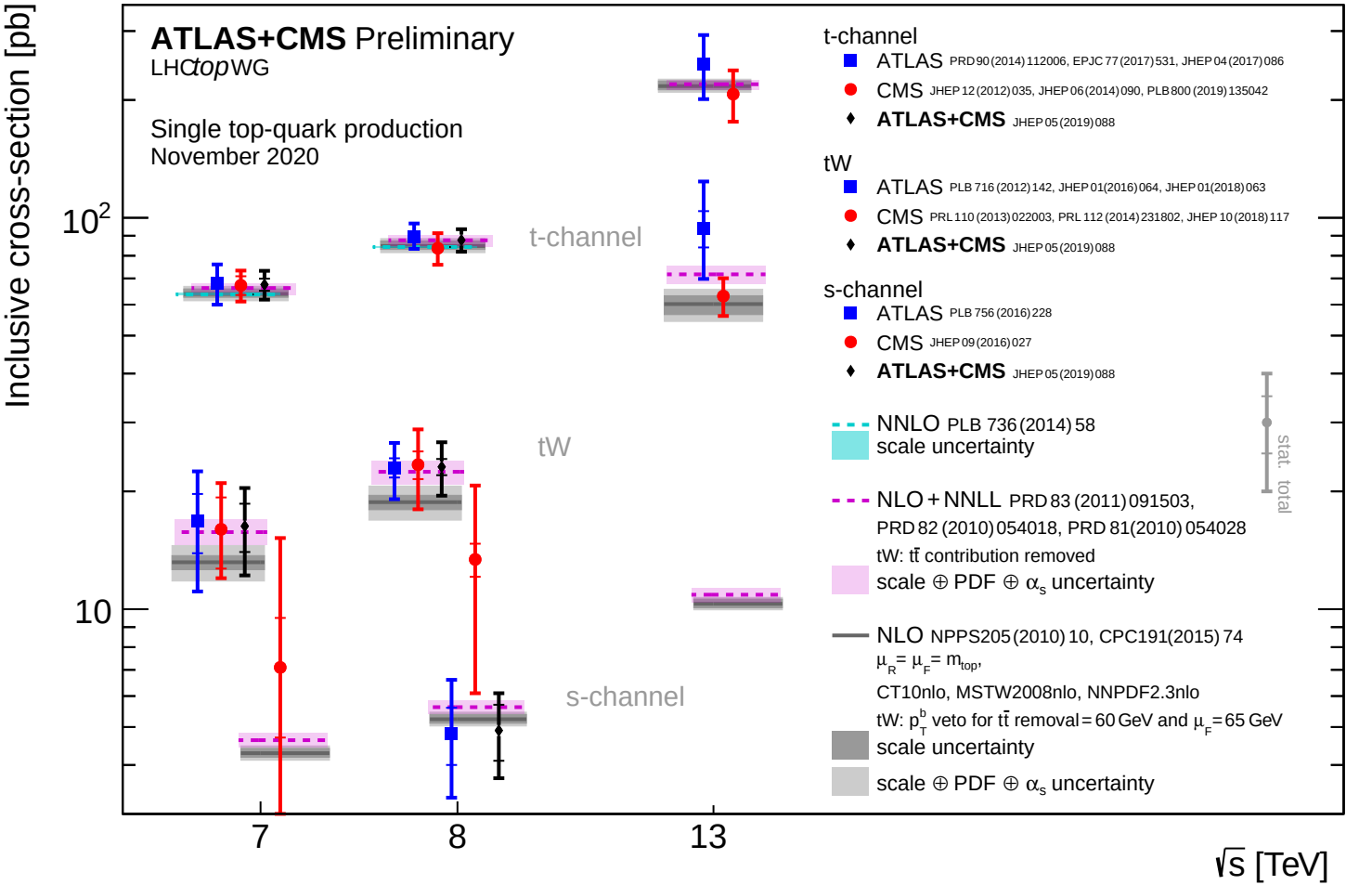
ATLAS+CMS Preliminary
LHCtopWG
Single top-quark production
November 2020
Inclusive cross-section [pb]
10^2
10
t-channel
tW
s-channel
7
8
13
$\sqrt{s}$ [TeV]
t-channel
ATLAS PRD 90 (2014) 112006, EPJC 77 (2017) 531, JHEP 04 (2017) 086
CMS JHEP 12 (2012) 035, JHEP 06 (2014) 090, PLB 800 (2019) 135042
ATLAS+CMS 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 ⊕ PDF ⊕ 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 μ_F = 65 GeV
scale uncertainty
scale ⊕ PDF ⊕ α_s uncertainty
stat.
total