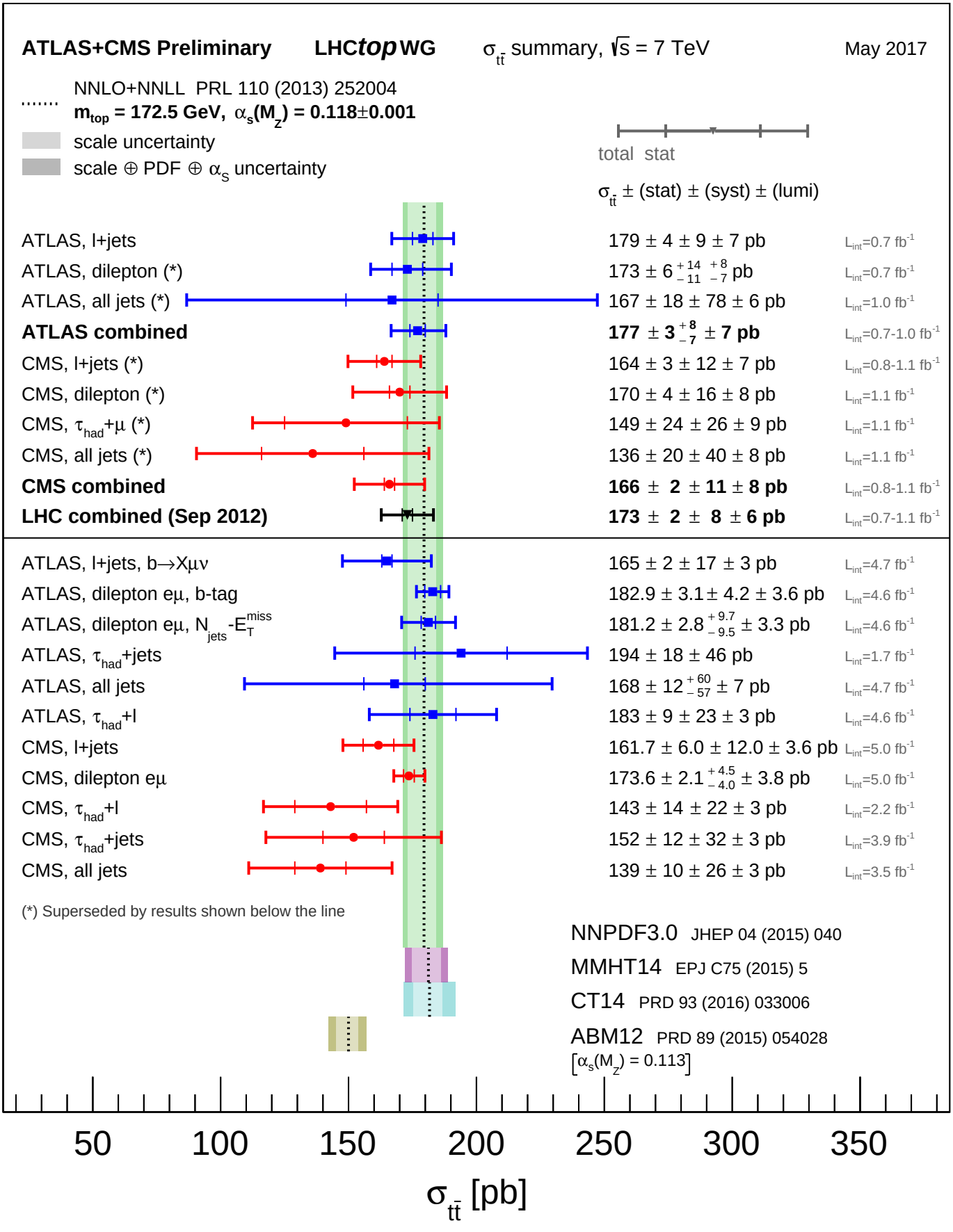
ATLAS+CMS Preliminary
LHCtopWG
σtt̄ summary, √s = 7 TeV
May 2017
NNLO+NNLL PRL 110 (2013) 252004
mtop = 172.5 GeV, αs(MZ) = 0.118±0.001
scale uncertainty
scale ⊕ PDF ⊕ αS uncertainty
total stat
σtt̄ ± (stat) ± (syst) ± (lumi)
ATLAS, l+jets 179 ± 4 ± 9 ± 7 pb Lint=0.7 fb-1
ATLAS, dilepton (*) 173 ± 6 +14 −11 +8 −7 pb Lint=0.7 fb-1
ATLAS, all jets (*) 167 ± 18 ± 78 ± 6 pb Lint=1.0 fb-1
ATLAS combined 177 ± 3 +8 −7 ± 7 pb Lint=0.7-1.0 fb-1
CMS, l+jets (*) 164 ± 3 ± 12 ± 7 pb Lint=0.8-1.1 fb-1
CMS, dilepton (*) 170 ± 4 ± 16 ± 8 pb Lint=1.1 fb-1
CMS, τhad+μ (*) 149 ± 24 ± 26 ± 9 pb Lint=1.1 fb-1
CMS, all jets (*) 136 ± 20 ± 40 ± 8 pb Lint=1.1 fb-1
CMS combined 166 ± 2 ± 11 ± 8 pb Lint=0.8-1.1 fb-1
LHC combined (Sep 2012) 173 ± 2 ± 8 ± 6 pb Lint=0.7-1.1 fb-1
ATLAS, l+jets, b→Xμν 165 ± 2 ± 17 ± 3 pb Lint=4.7 fb-1
ATLAS, dilepton eμ, b-tag 182.9 ± 3.1 ± 4.2 ± 3.6 pb Lint=4.6 fb-1
ATLAS, dilepton eμ, Njets-ET miss 181.2 ± 2.8 +9.7 −9.5 ± 3.3 pb Lint=4.6 fb-1
ATLAS, τhad+jets 194 ± 18 ± 46 pb Lint=1.7 fb-1
ATLAS, all jets 168 ± 12 +60 −57 ± 7 pb Lint=4.7 fb-1
ATLAS, τhad+l 183 ± 9 ± 23 ± 3 pb Lint=4.6 fb-1
CMS, l+jets 161.7 ± 6.0 ± 12.0 ± 3.6 pb Lint=5.0 fb-1
CMS, dilepton eμ 173.6 ± 2.1 +4.5 −4.0 ± 3.8 pb Lint=5.0 fb-1
CMS, τhad+l 143 ± 14 ± 22 ± 3 pb Lint=2.2 fb-1
CMS, τhad+jets 152 ± 12 ± 32 ± 3 pb Lint=3.9 fb-1
CMS, all jets 139 ± 10 ± 26 ± 3 pb Lint=3.5 fb-1
(*) Superseded by results shown below the line
NNPDF3.0 JHEP 04 (2015) 040
MMHT14 EPJ C75 (2015) 5
CT14 PRD 93 (2016) 033006
ABM12 PRD 89 (2015) 054028
[αs(MZ) = 0.113]
50
100
150
200
250
300
350
σtt̄ [pb]