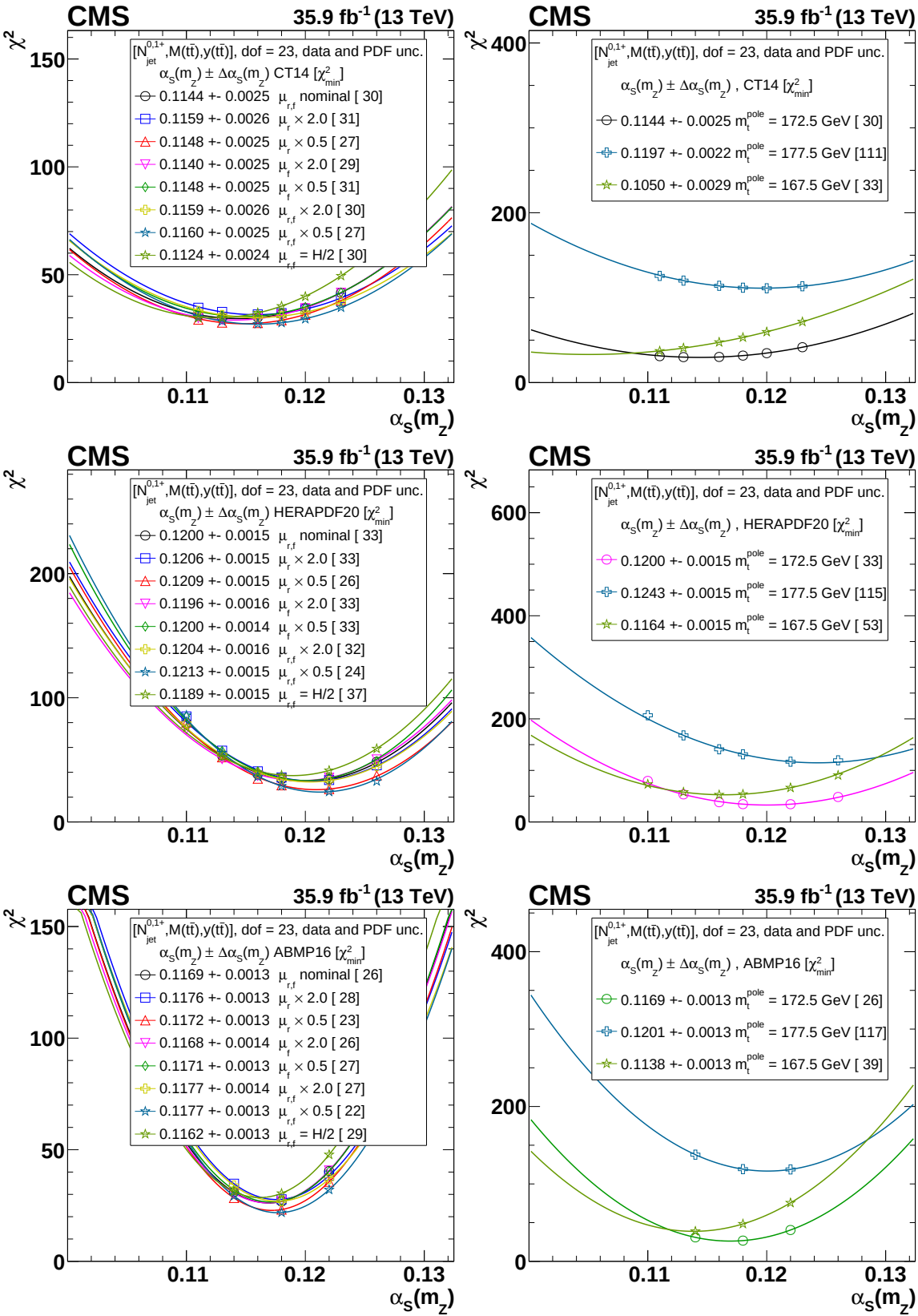
CMS
35.9 fb^{-1} (13 TeV)
χ^2
$\alpha_S(m_Z)$
[$N_{jet}^{0,1+}$,M(tt̄),y(tt̄)], dof = 23, data and PDF unc.
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$ CT14 [χ^2_{min}]
0.1144 +- 0.0025 $\mu_{r,f}$ nominal [30]
0.1159 +- 0.0026 $\mu_r \times 2.0$ [31]
0.1148 +- 0.0025 $\mu_r \times 0.5$ [27]
0.1140 +- 0.0025 $\mu_f \times 2.0$ [29]
0.1148 +- 0.0025 $\mu_f \times 0.5$ [31]
0.1159 +- 0.0026 $\mu_{r,f} \times 2.0$ [30]
0.1160 +- 0.0025 $\mu_{r,f} \times 0.5$ [27]
0.1124 +- 0.0024 $\mu_{r,f}$ = H/2 [30]
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$, CT14 [χ^2_{min}]
0.1144 +- 0.0025 m_t^{pole} = 172.5 GeV [30]
0.1197 +- 0.0022 m_t^{pole} = 177.5 GeV [111]
0.1050 +- 0.0029 m_t^{pole} = 167.5 GeV [33]
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$ HERAPDF20 [χ^2_{min}]
0.1200 +- 0.0015 $\mu_{r,f}$ nominal [33]
0.1206 +- 0.0015 $\mu_r \times 2.0$ [33]
0.1209 +- 0.0015 $\mu_r \times 0.5$ [26]
0.1196 +- 0.0016 $\mu_f \times 2.0$ [33]
0.1200 +- 0.0014 $\mu_f \times 0.5$ [33]
0.1204 +- 0.0016 $\mu_{r,f} \times 2.0$ [32]
0.1213 +- 0.0015 $\mu_{r,f} \times 0.5$ [24]
0.1189 +- 0.0015 $\mu_{r,f}$ = H/2 [37]
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$, HERAPDF20 [χ^2_{min}]
0.1200 +- 0.0015 m_t^{pole} = 172.5 GeV [33]
0.1243 +- 0.0015 m_t^{pole} = 177.5 GeV [115]
0.1164 +- 0.0015 m_t^{pole} = 167.5 GeV [53]
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$ ABMP16 [χ^2_{min}]
0.1169 +- 0.0013 $\mu_{r,f}$ nominal [26]
0.1176 +- 0.0013 $\mu_r \times 2.0$ [28]
0.1172 +- 0.0013 $\mu_r \times 0.5$ [23]
0.1168 +- 0.0014 $\mu_f \times 2.0$ [26]
0.1171 +- 0.0013 $\mu_f \times 0.5$ [27]
0.1177 +- 0.0014 $\mu_{r,f} \times 2.0$ [27]
0.1177 +- 0.0013 $\mu_{r,f} \times 0.5$ [22]
0.1162 +- 0.0013 $\mu_{r,f}$ = H/2 [29]
$\alpha_S(m_Z) \pm \Delta\alpha_S(m_Z)$, ABMP16 [χ^2_{min}]
0.1169 +- 0.0013 m_t^{pole} = 172.5 GeV [26]
0.1201 +- 0.0013 m_t^{pole} = 177.5 GeV [117]
0.1138 +- 0.0013 m_t^{pole} = 167.5 GeV [39]