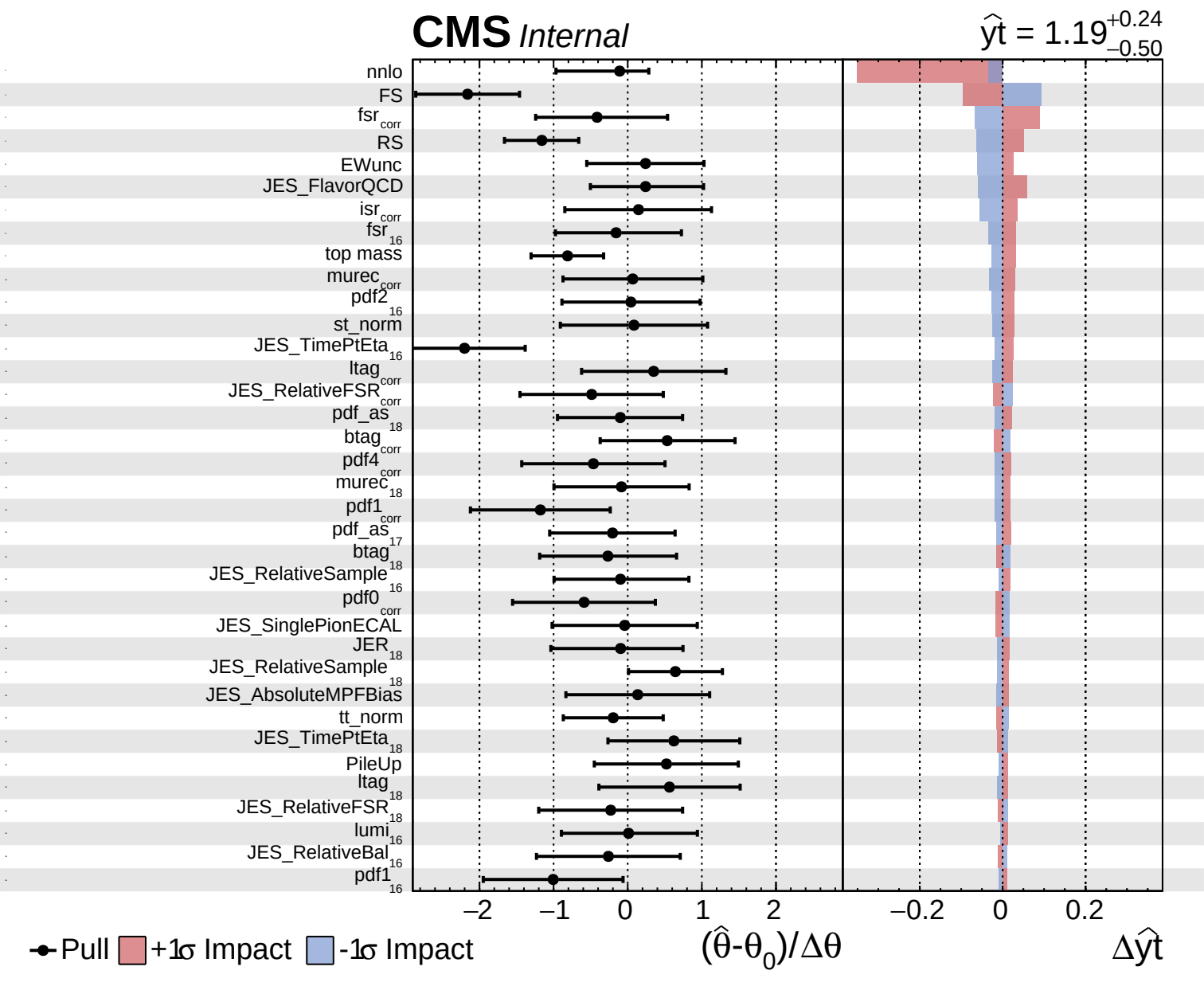
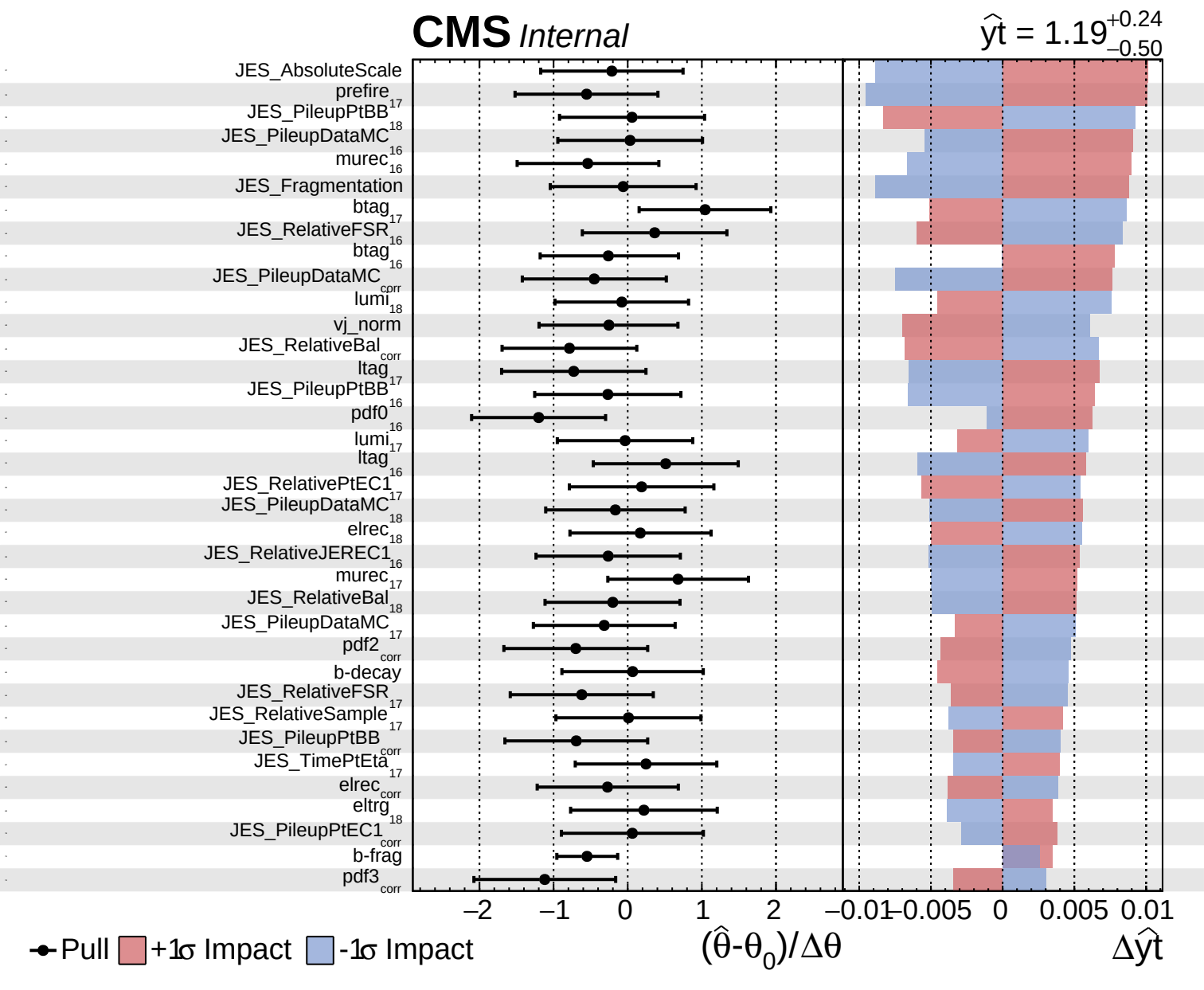
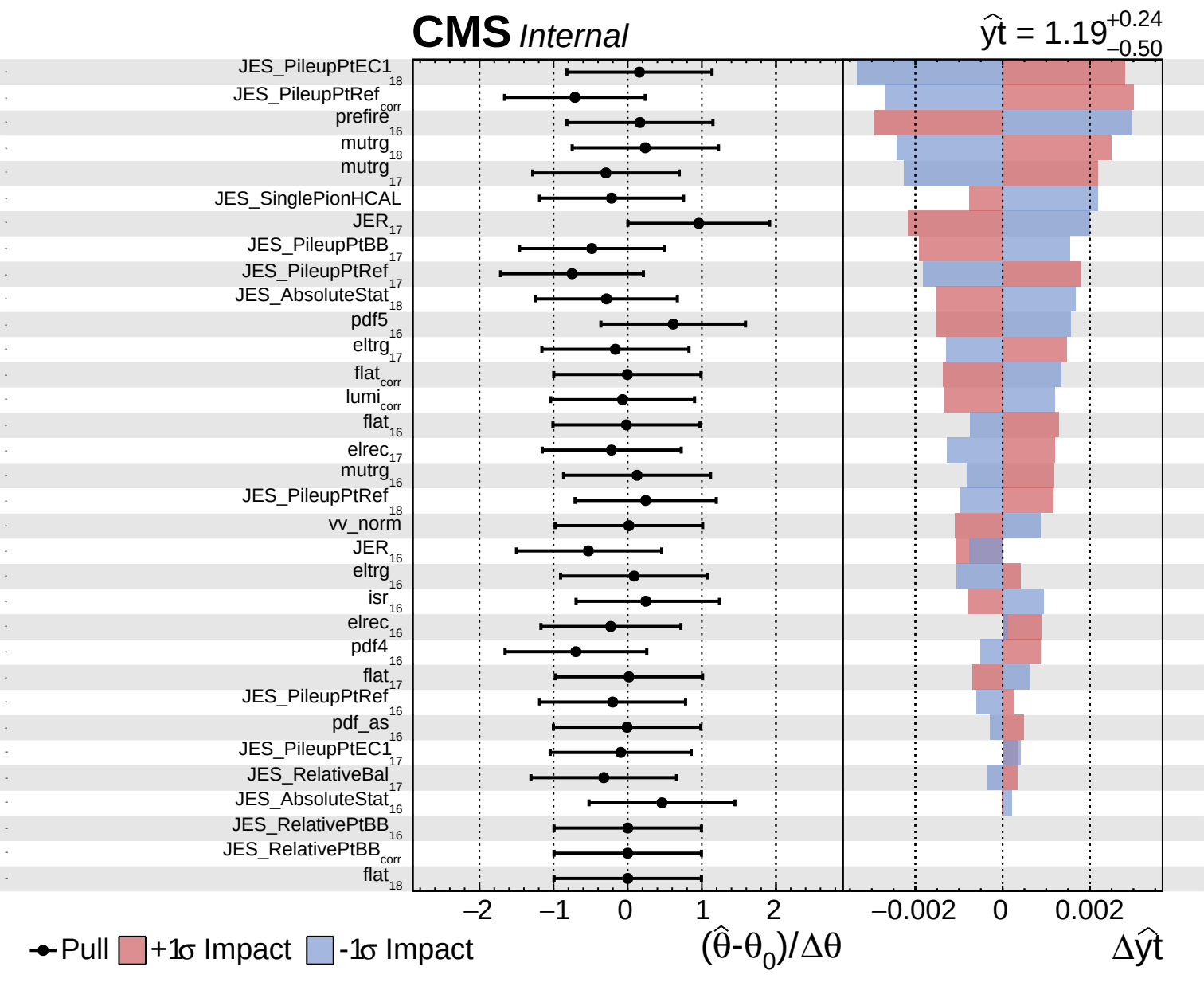

CMS Internal
$\hat{y}t = 1.19^{+0.24}_{-0.50}$
nnlo
FS
fsr corr
RS
EWunc
JES_FlavorQCD
isr corr
fsr 16
top mass
murec corr
pdf2 16
st_norm
JES_TimePtEta 16
ltag corr
JES_RelativeFSR corr
pdf_as 18
btag corr
pdf4 corr
murec 18
pdf1 corr
pdf_as 17
btag 18
JES_RelativeSample 16
pdf0 corr
JES_SinglePionECAL
JER 18
JES_RelativeSample 18
JES_AbsoluteMPFBias
tt_norm
JES_TimePtEta 18
PileUp
ltag 18
JES_RelativeFSR 18
lumi 16
JES_RelativeBal 16
pdf1 16
−2
−1
0
1
2
−0.2
0
0.2
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\hat{y}t$


CMS Internal
$\hat{y}t = 1.19^{+0.24}_{-0.50}$
JES_AbsoluteScale
prefire
JES_PileupPtBB$_{17}$
JES_PileupDataMC$_{18}$
murec$_{16}$
JES_Fragmentation
btag$_{17}$
JES_RelativeFSR$_{16}$
btag$_{16}$
JES_PileupDataMC$_{corr}$
lumi$_{18}$
vj_norm
JES_RelativeBal$_{corr}$
ltag$_{17}$
JES_PileupPtBB$_{16}$
pdf0$_{16}$
lumi$_{17}$
ltag$_{16}$
JES_RelativePtEC1$_{17}$
JES_PileupDataMC$_{18}$
elrec$_{18}$
JES_RelativeJEREC1$_{16}$
murec$_{17}$
JES_RelativeBal$_{18}$
JES_PileupDataMC$_{17}$
pdf2$_{corr}$
b-decay
JES_RelativeFSR$_{17}$
JES_RelativeSample$_{17}$
JES_PileupPtBB$_{corr}$
JES_TimePtEta$_{17}$
elrec$_{corr}$
eltrg$_{18}$
JES_PileupPtEC1$_{corr}$
b-frag
pdf3$_{corr}$
−2
−1
0
1
2
−0.01
−0.005
0
0.005
0.01
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\hat{y}t$


CMS Internal
$\hat{y}t = 1.19^{+0.24}_{-0.50}$
JES_PileupPtEC1 18
JES_PileupPtRef corr
prefire 16
mutrg 18
mutrg 17
JES_SinglePionHCAL
JER 17
JES_PileupPtBB 17
JES_PileupPtRef 17
JES_AbsoluteStat 18
pdf5 16
eltrg 17
flat corr
lumi corr
flat 16
elrec 17
mutrg 16
JES_PileupPtRef 18
vv_norm
JER 16
eltrg 16
isr 16
elrec 16
pdf4 16
flat 17
JES_PileupPtRef 16
pdf_as 16
JES_PileupPtEC1 17
JES_RelativeBal 17
JES_AbsoluteStat 16
JES_RelativePtBB 16
JES_RelativePtBB corr
flat 18
−2
−1
0
1
2
−0.002
0
0.002
Pull
+1σ Impact
-1σ Impact
$(\hat{\theta}-\theta_0)/\Delta\theta$
$\Delta\hat{y}t$