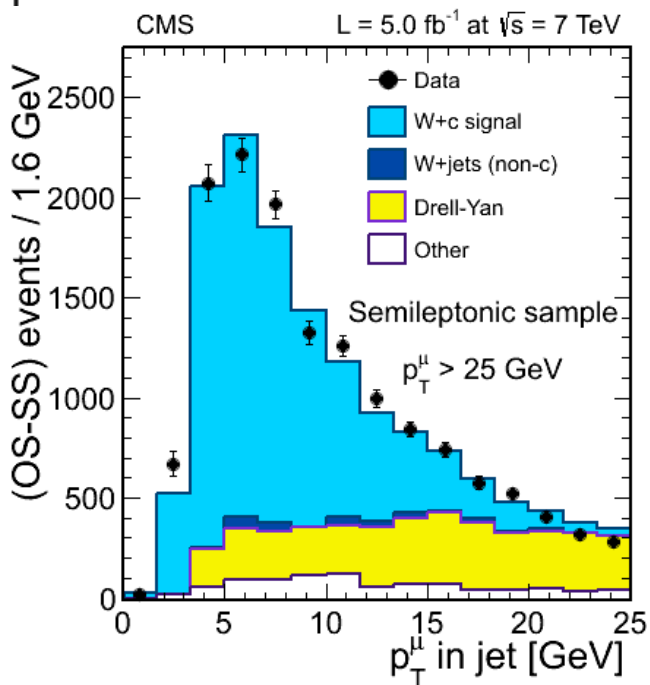
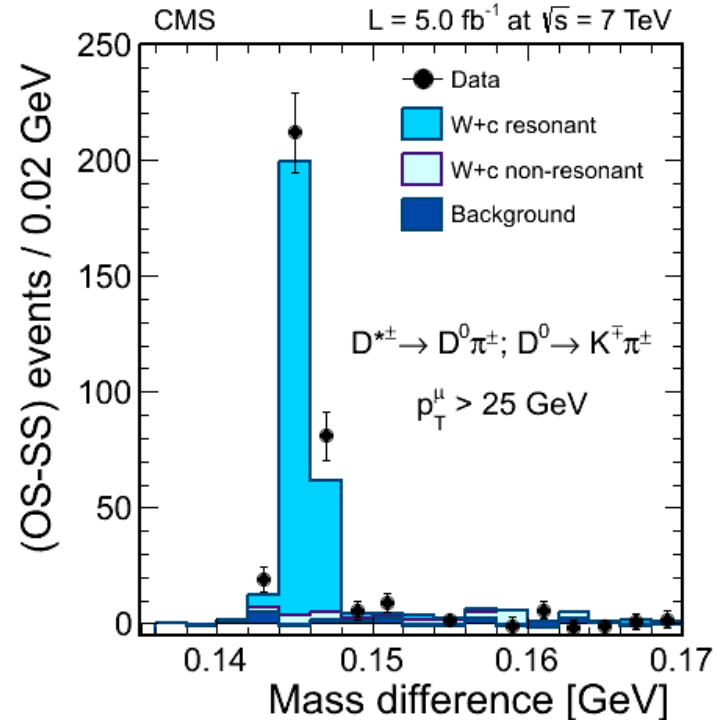
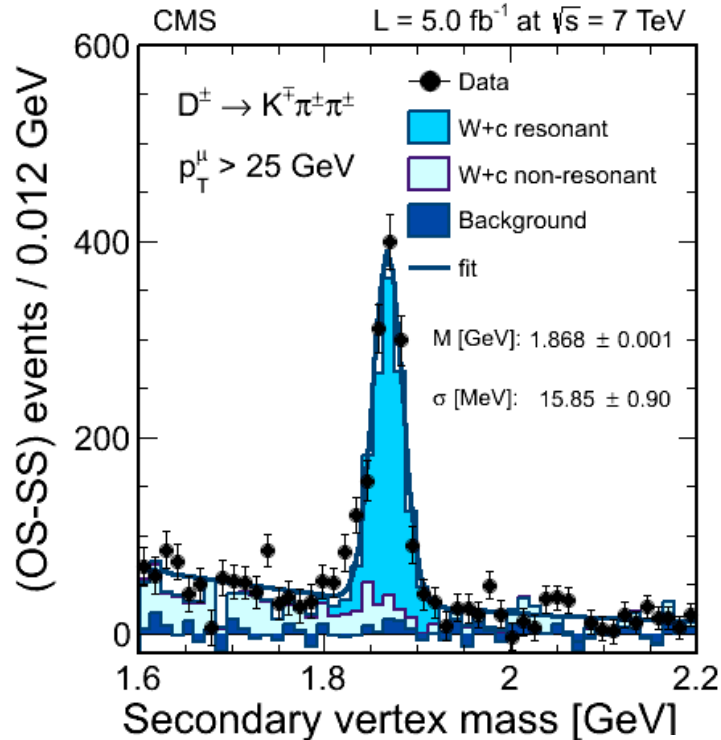
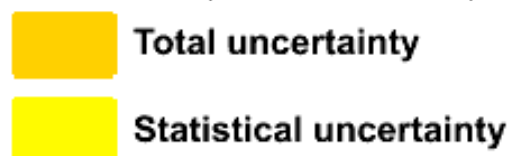


W+c Cross Section Measurement CMS

Support/Backup Slides

References [arXiv:1310.1138](#) (accepted in JHEP)
and [arXiv:1312.6283](#) (submitted to Phys. Rev D)





$$p_T^{\text{jet}} > 25 \text{ GeV}, |\eta^{\text{jet}}| < 2.5$$

$$p_T^l > 35 \text{ GeV}, |\eta^l| < 2.1$$

Predictions:
NLO MCFM + NNLO PDF

CMS 2011
 84.1 ± 2.0 (stat.) ± 4.9 (syst.) pb

■ MSTW08

$$78.7^{+1.4}_{-1.7} \text{ PDF pb}$$

● CT10

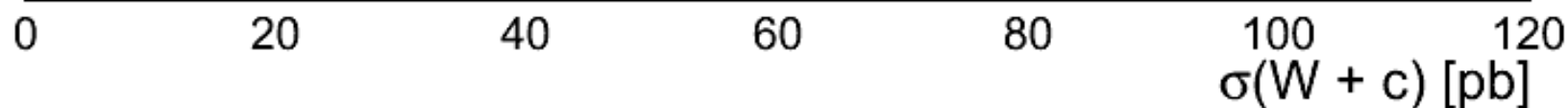
$$87.3^{+6.2}_{-5.2} \text{ PDF pb}$$

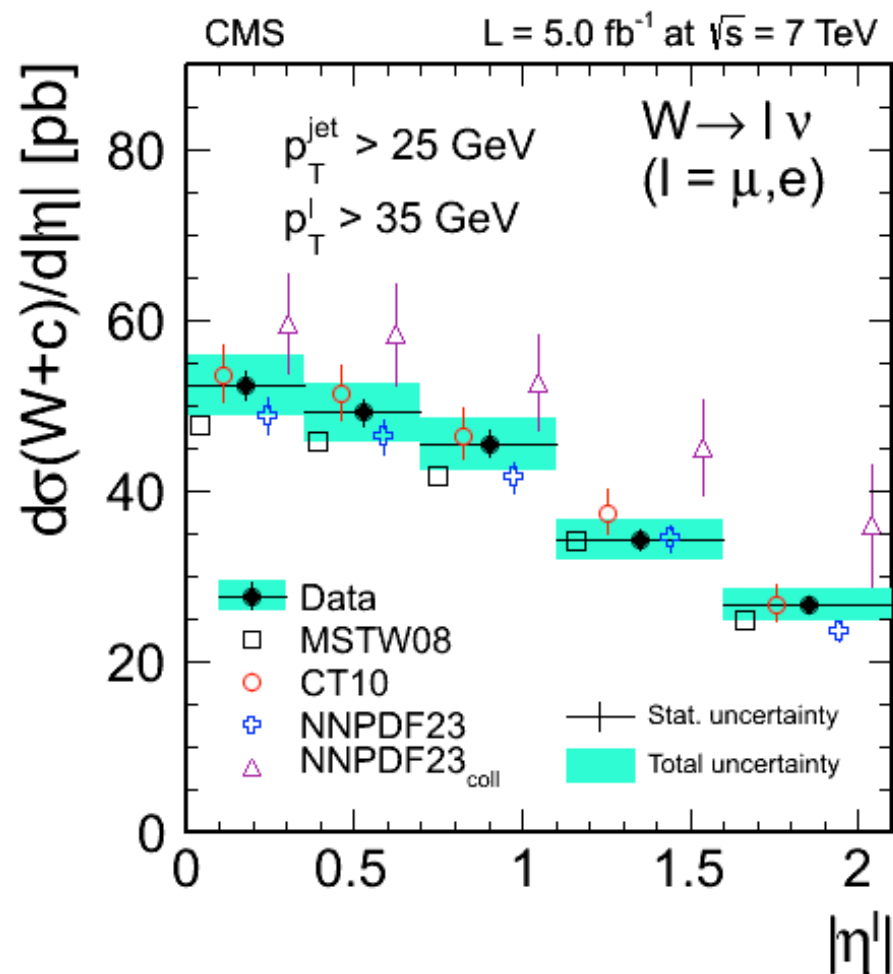
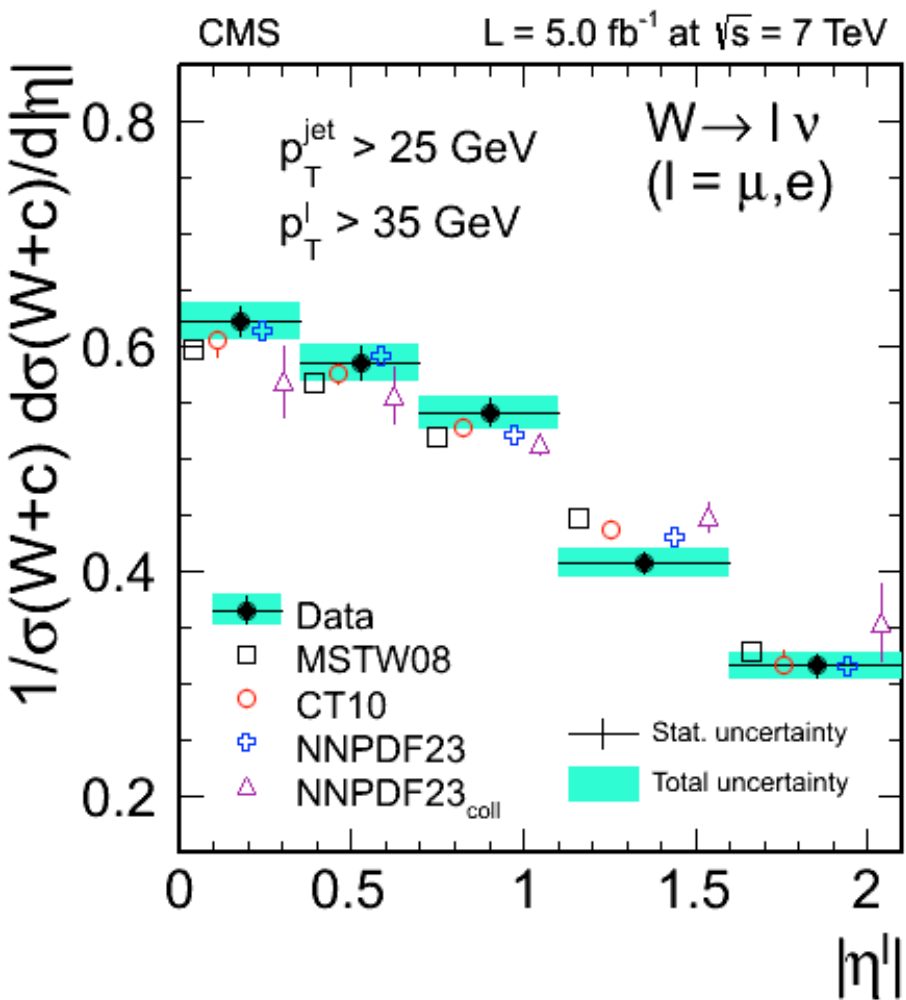
▼ NNPDF23

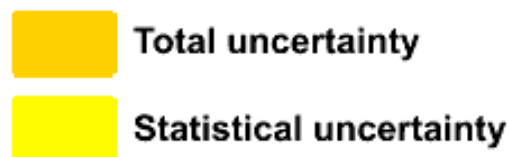
$$78.2 \pm 3.3 \text{ PDF pb}$$

▲ NNPDF23_{coll}

$$102.7 \pm 11.8 \text{ PDF pb}$$







$$p_T^{\text{jet}} > 25 \text{ GeV}, |\eta^{\text{jet}}| < 2.5$$

$$p_T^l > 35 \text{ GeV}, |\eta^l| < 2.1$$

Predictions:
NLO MCFM + NNLO PDF

CMS 2011
 $0.938 \pm 0.019 \text{ (stat.)} \pm 0.006 \text{ (syst.)}$

■ MSTW08

$$0.904^{+0.018}_{-0.024} \text{ PDF}$$

● CT10

$$0.942 \pm 0.004 \text{ PDF}$$

▼ NNPDF23

$$0.923 \pm 0.015 \text{ PDF}$$

▲ NNPDF23_{coll}

$$0.936 \pm 0.022 \text{ PDF}$$

$$\sigma(W^+ + \bar{c}) / \sigma(W^- + c)$$

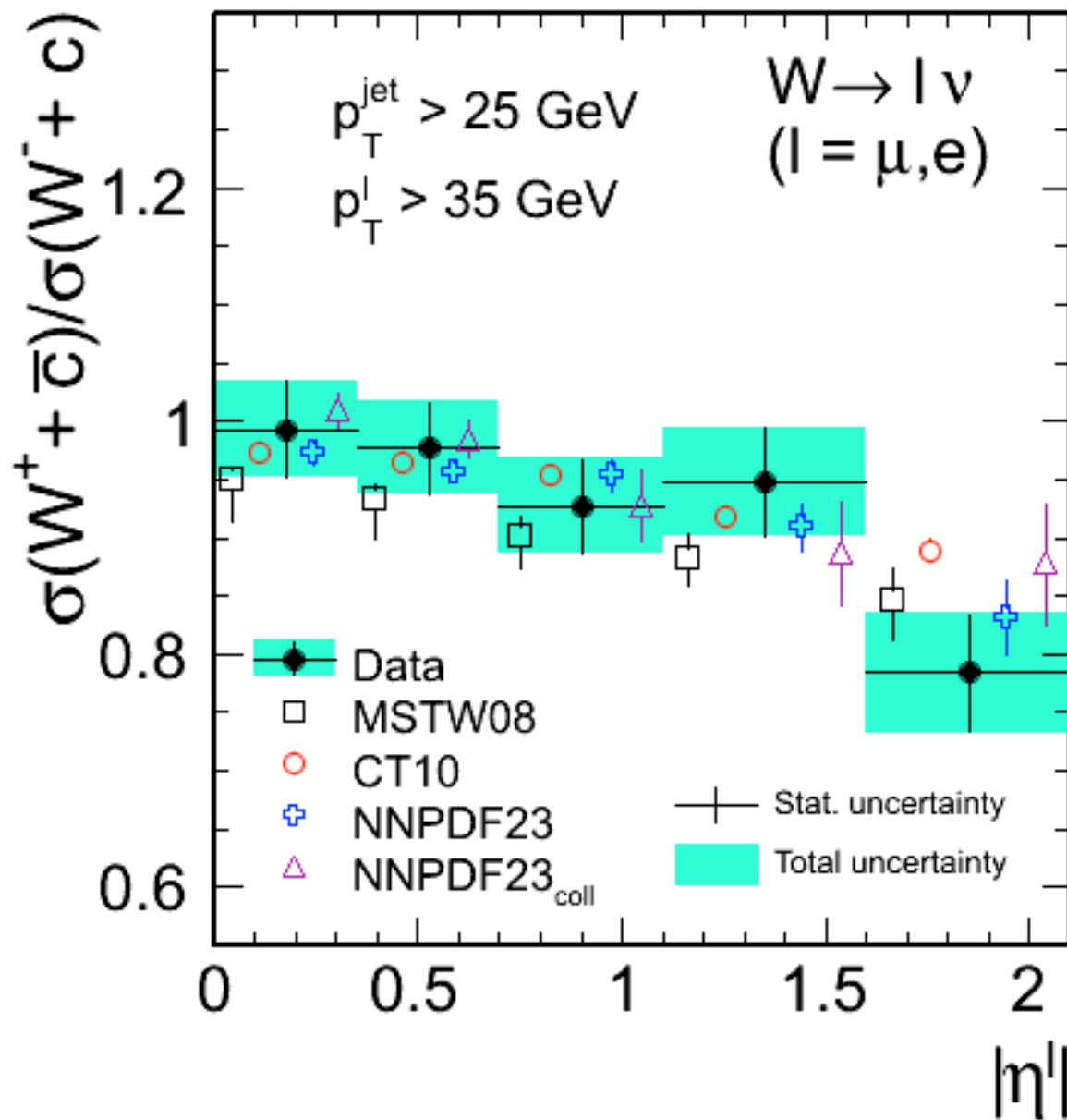
0.4

0.6

0.8

1

CMS

L = 5.0 fb⁻¹ at $\sqrt{s} = 7$ TeV

QCD analysis using the muon charge asymmetry and the W+charm data (free-s fit)

CMS-PAS-SMP-021 [hep-ex/1312.6283](https://arxiv.org/abs/hep-ex/1312.6283)

