

# Various plots and tables from the DY

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## 1 $\delta_T$ scans

$\delta_T$  scan

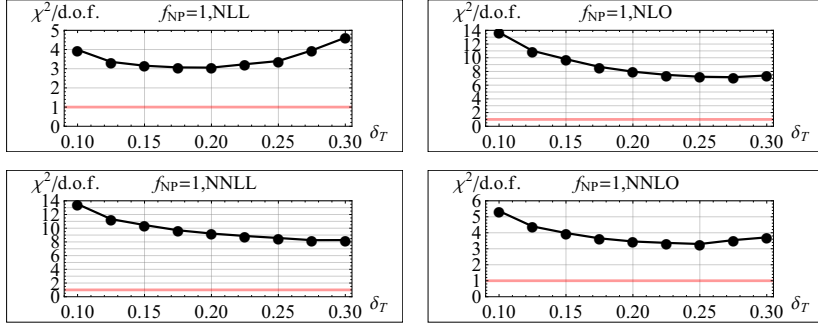


Figure 1: Values of  $\chi^2/dof$  for the high-energy data with  $f_{NP} = 1$ ,  $\mu = \mu_b + 1$

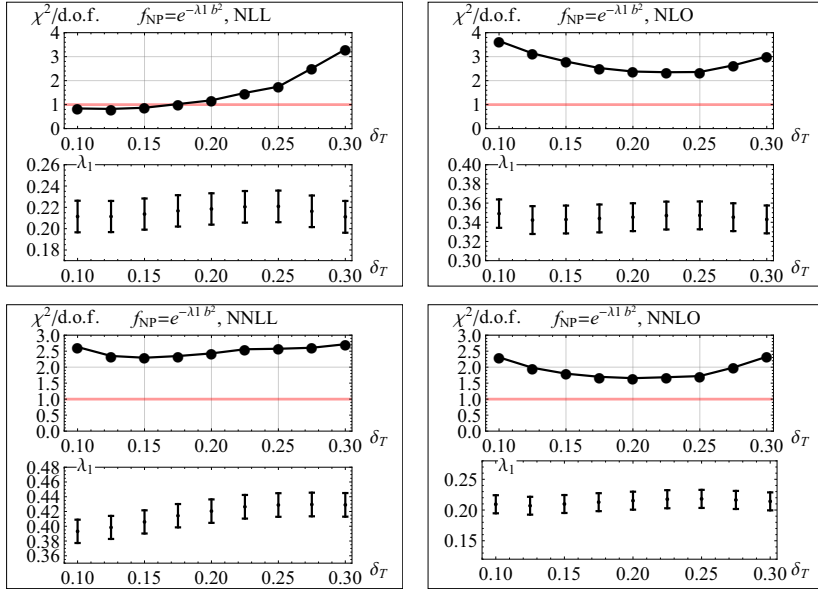


Figure 2: Values of  $\chi^2/dof$  and the fitted parameter for the high-energy data with  $f_{NP} = \exp(-\lambda_2 b^2)$ ,  $\mu = \mu_b + 1$

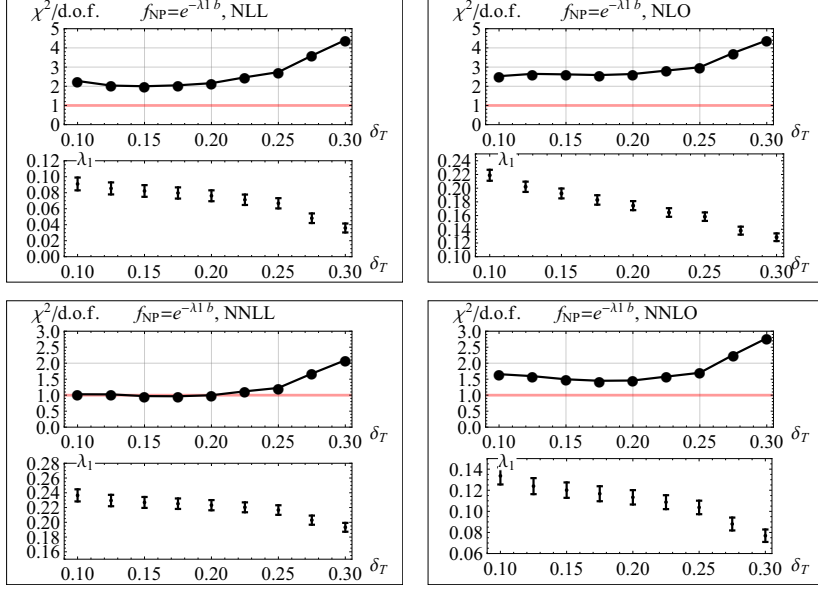


Figure 3: Values of  $\chi^2/dof$  and the fitted parameter for the high-energy data with  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

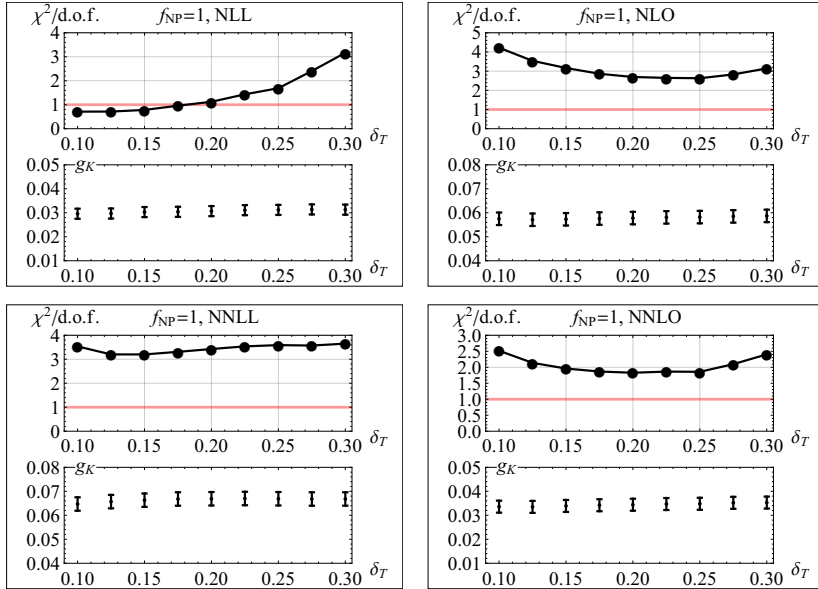


Figure 4: Values of  $\chi^2/dof$  and the fitted parameter for the high-energy data with  $f_{NP} = 1$ ,  $\mu = \mu_b + 1$ , and  $g_K \neq 0$

## 2 Uncertainties for M1

Theoretical uncertainties  
order-by-order

$$f_{NP} = e^{-\lambda_1 b} (1 + \lambda_2 b^2)$$

Model 1

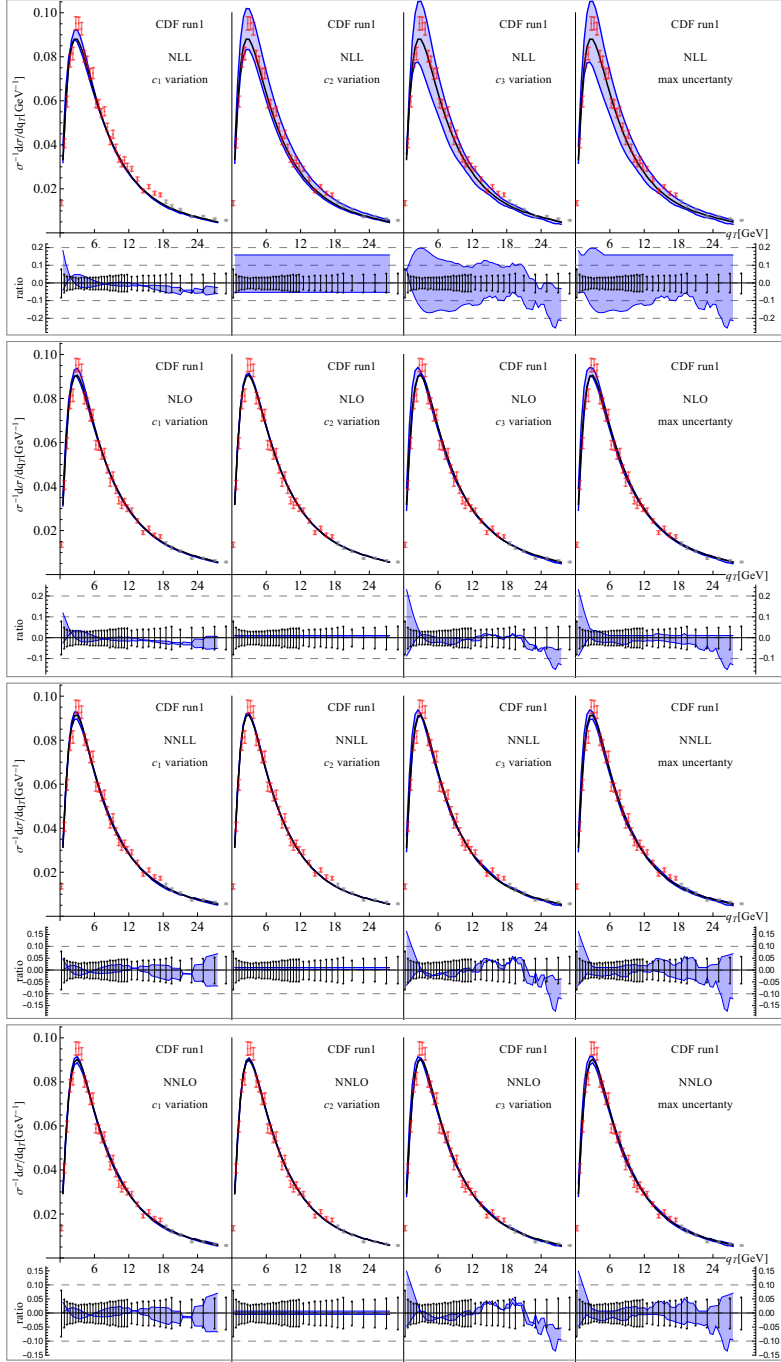


Figure 5: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

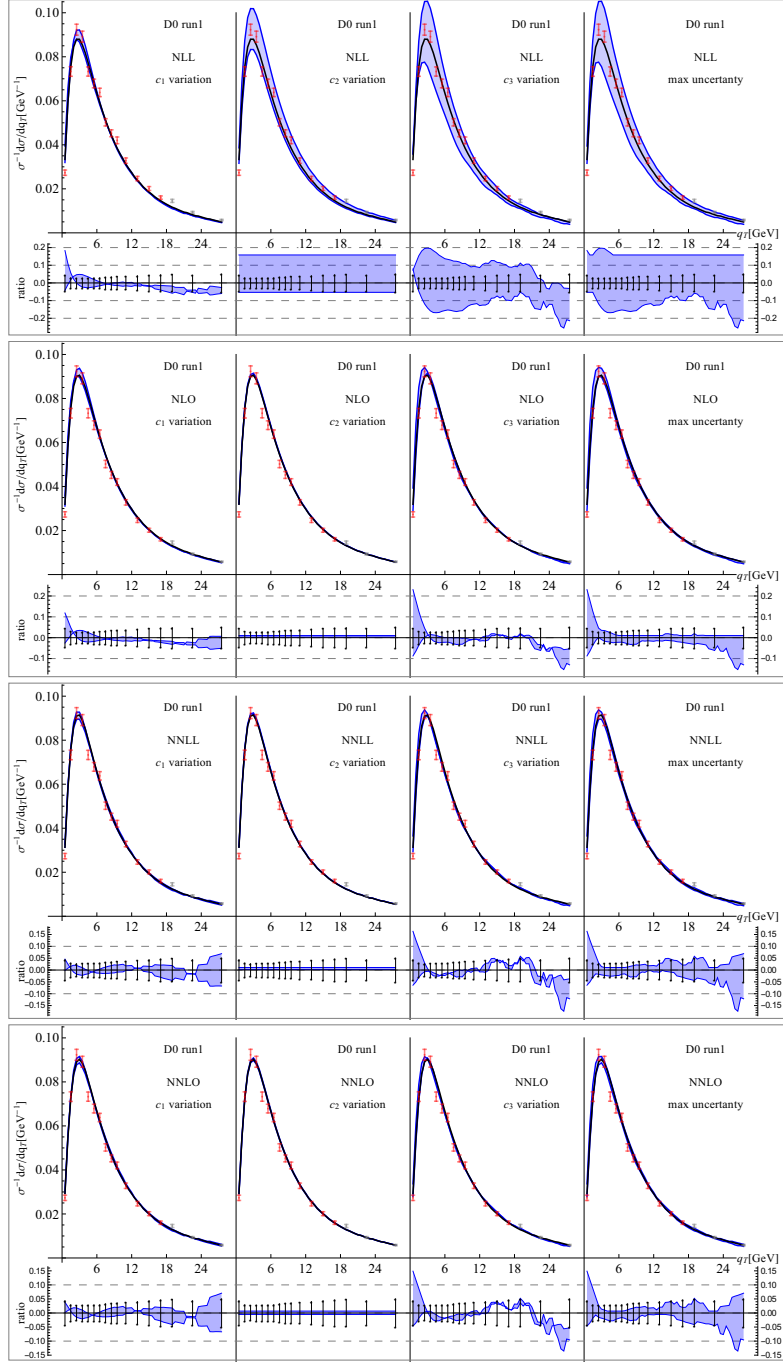


Figure 6: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

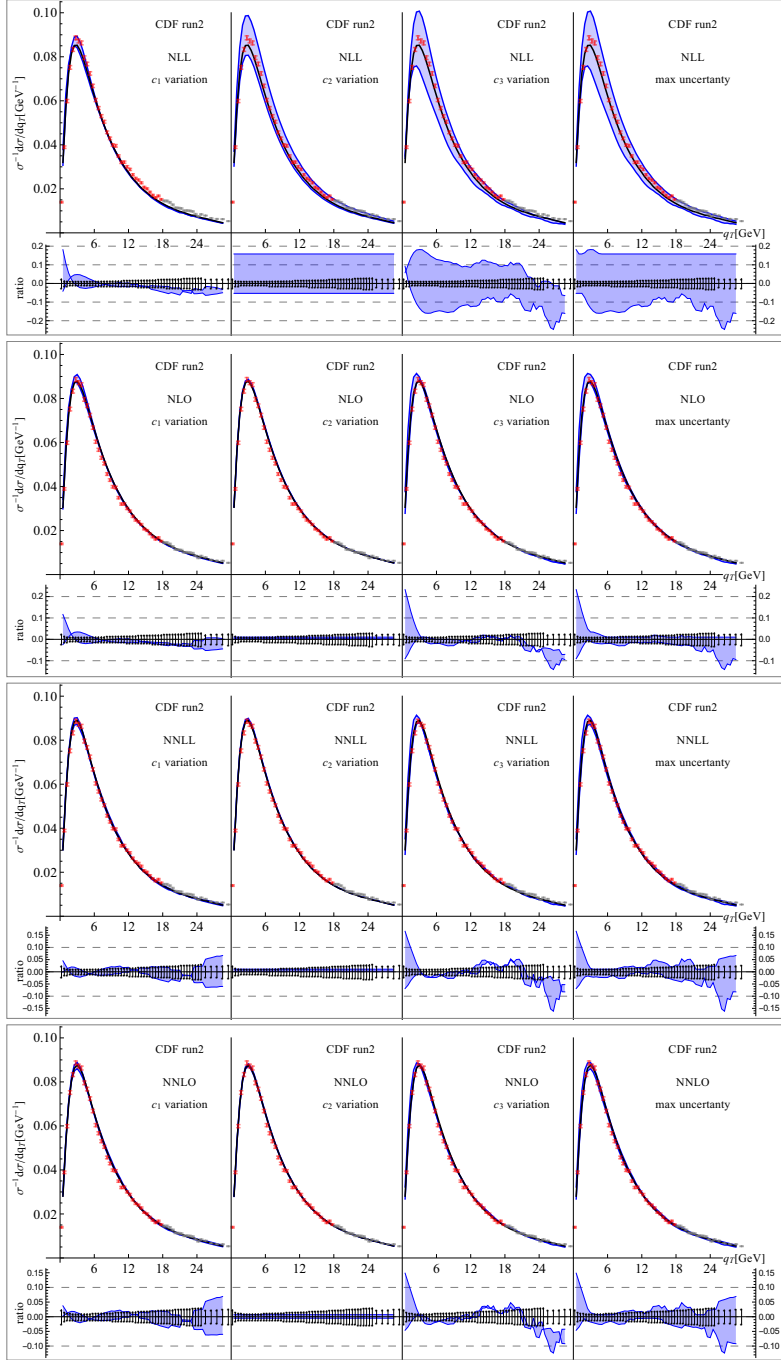


Figure 7: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

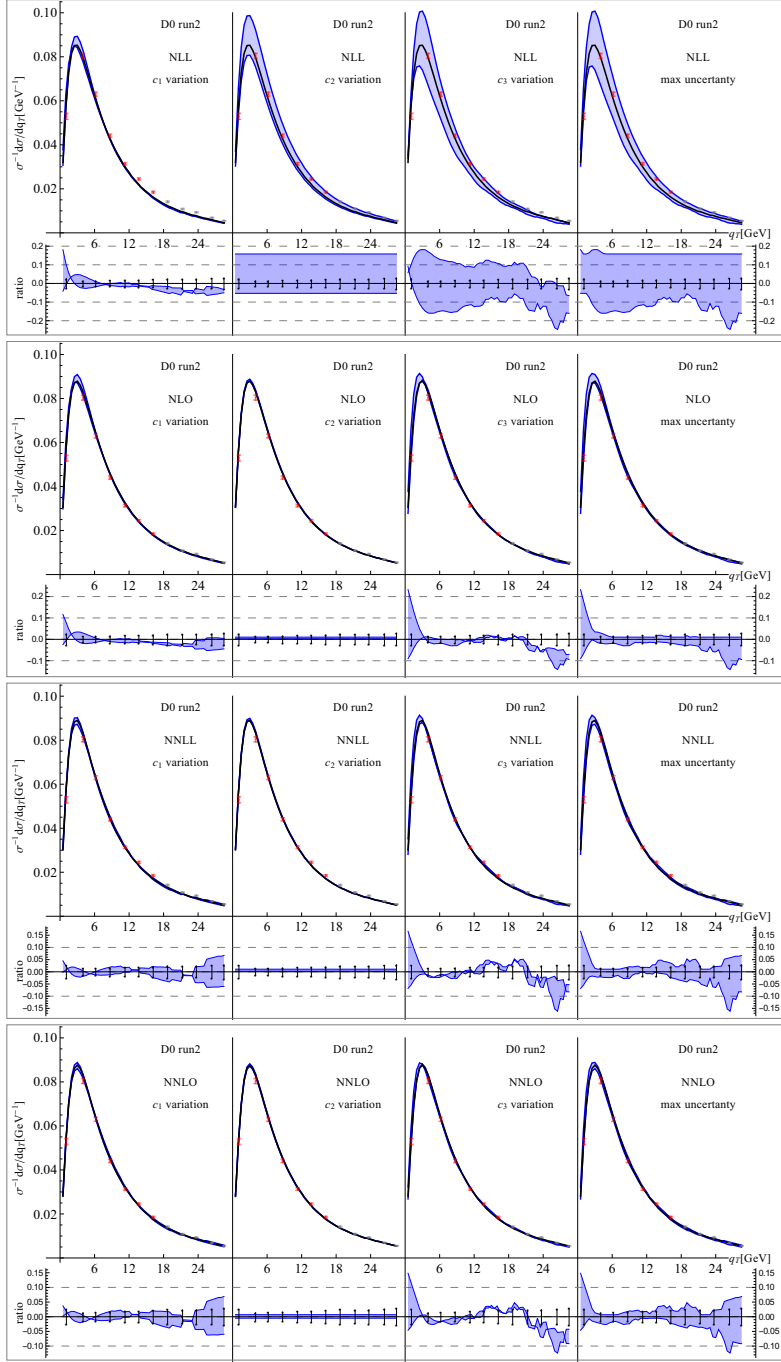


Figure 8: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



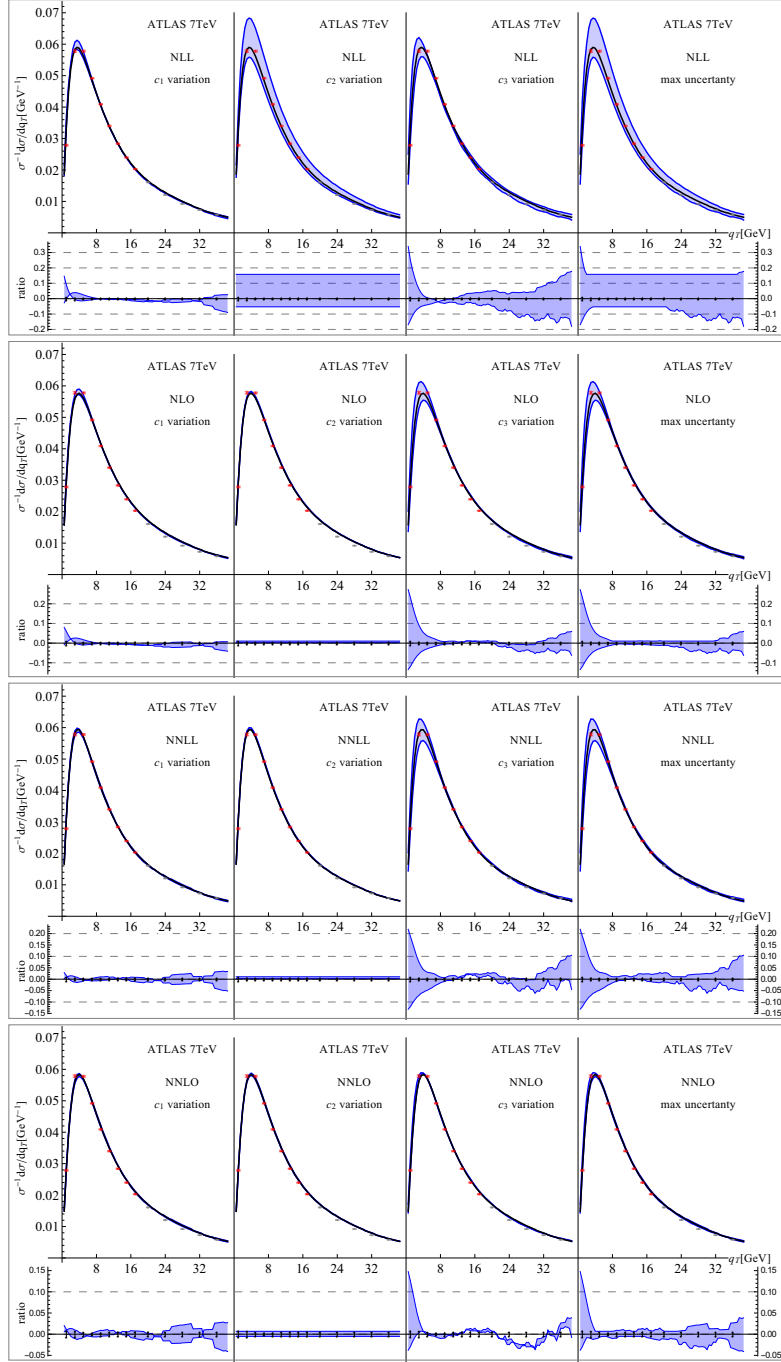


Figure 9: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

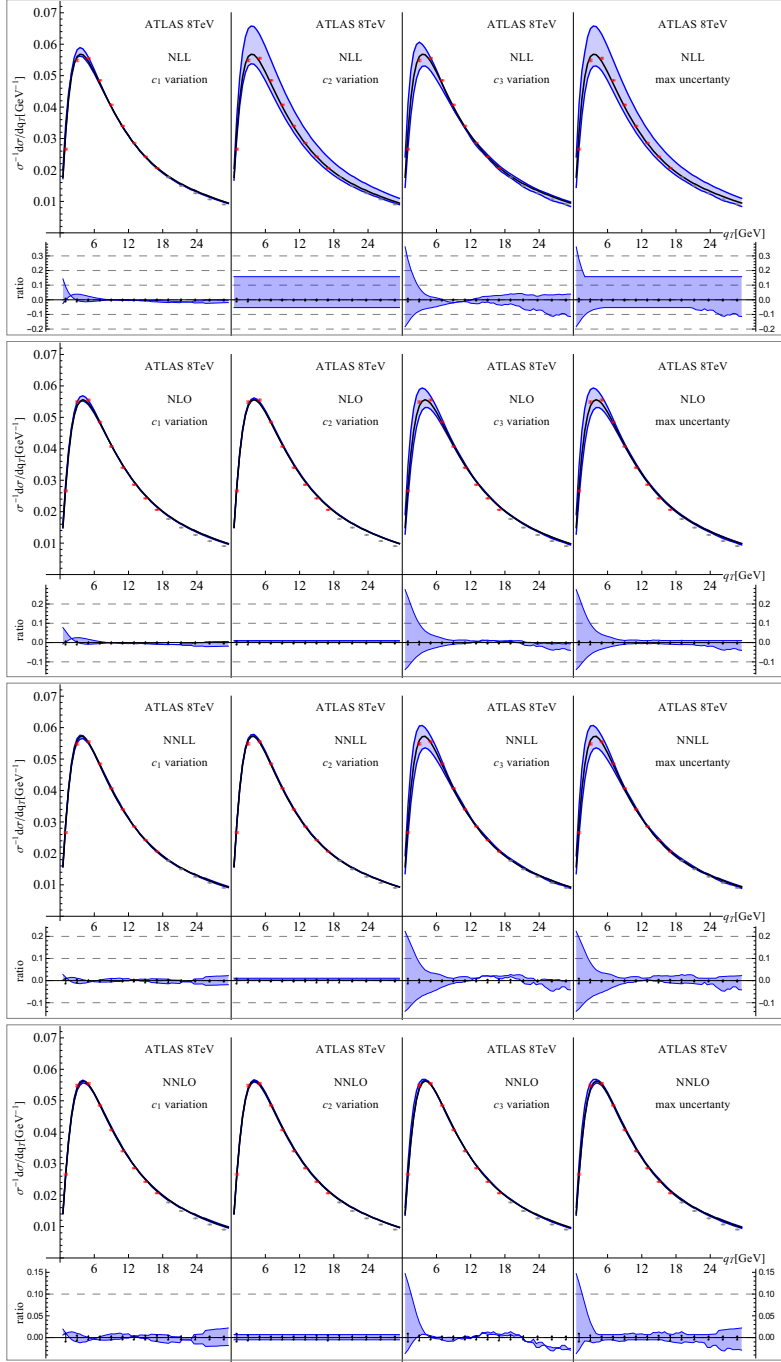


Figure 10: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

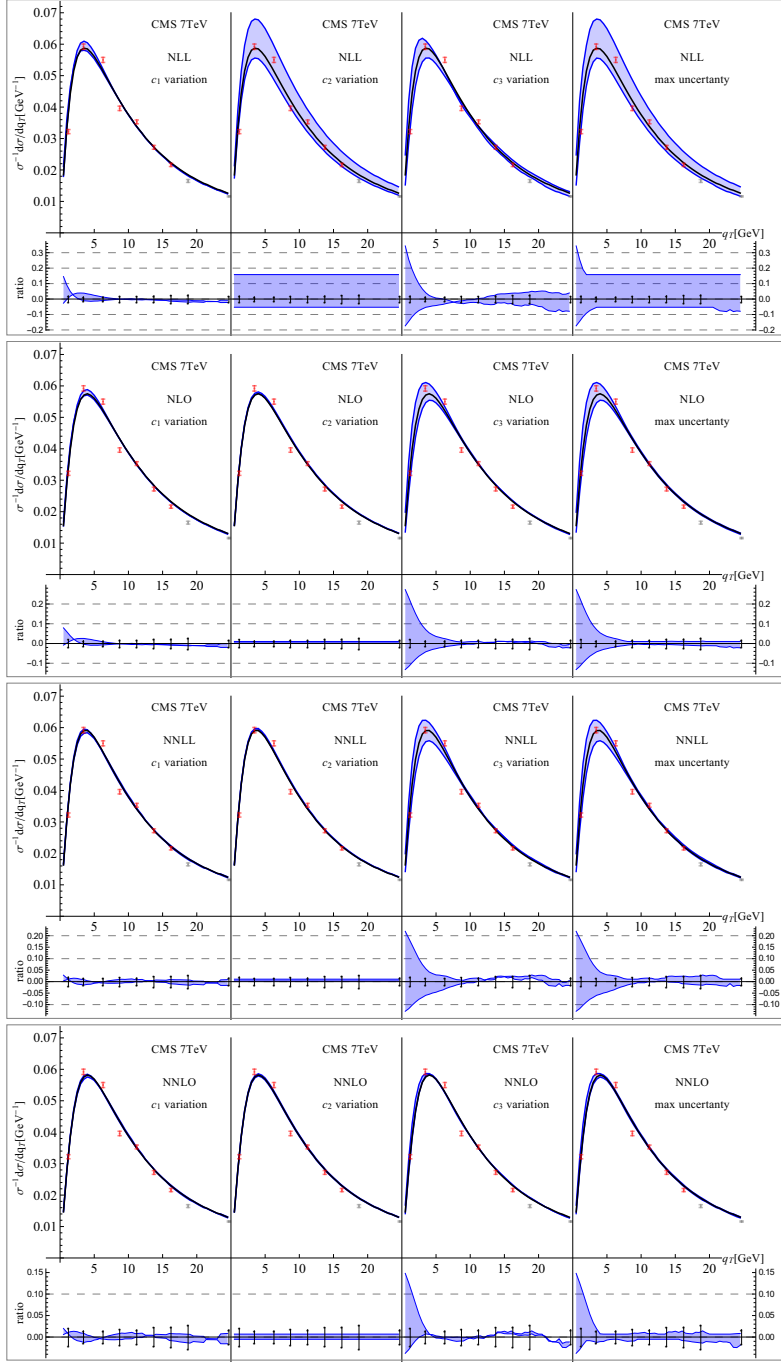


Figure 11: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

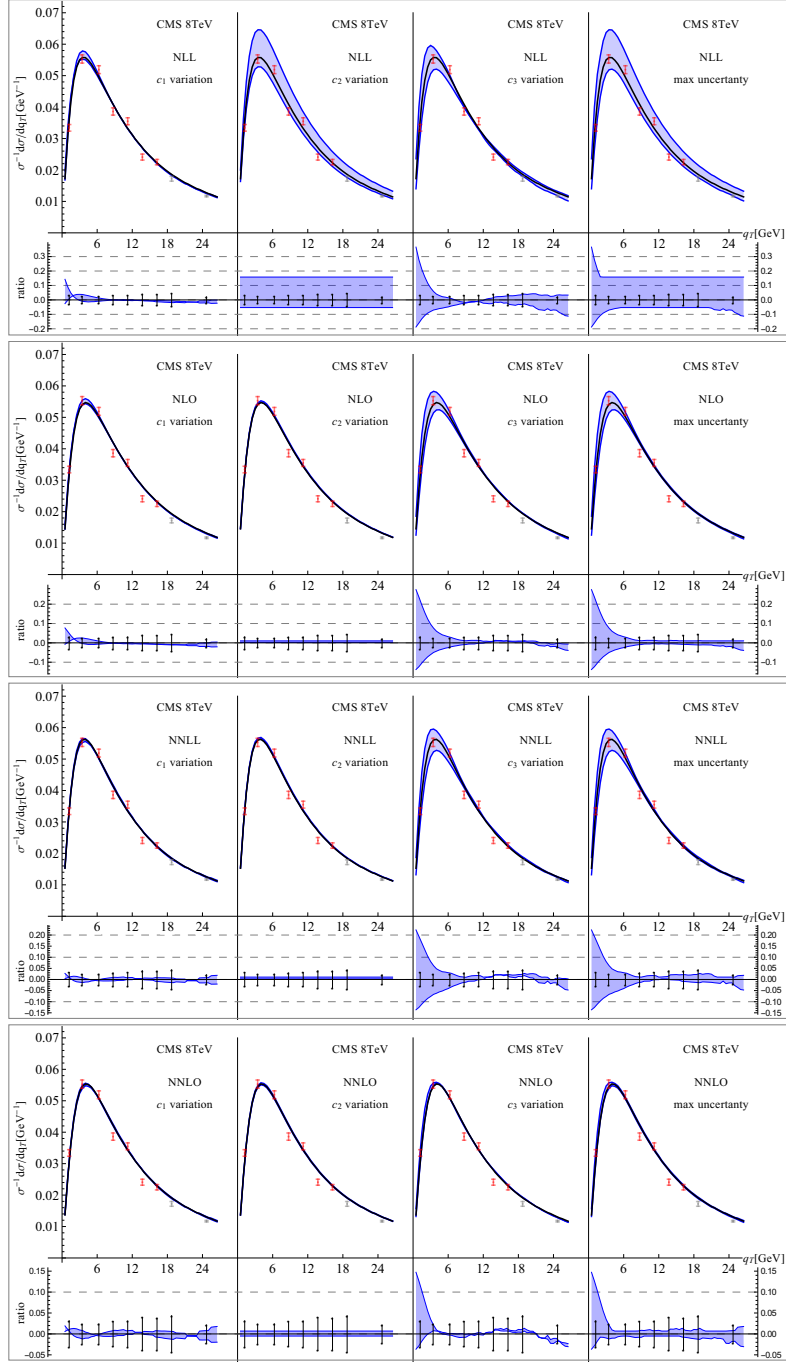


Figure 12: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

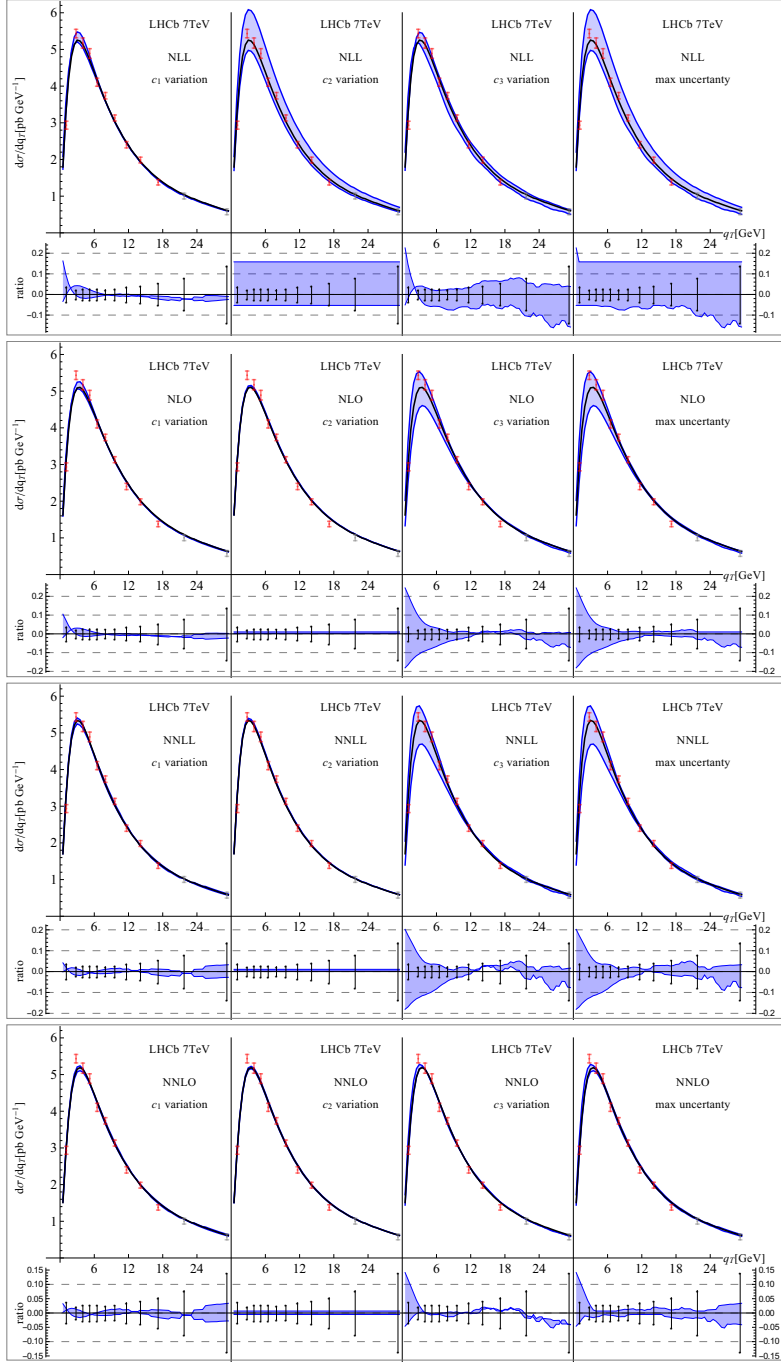


Figure 13: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

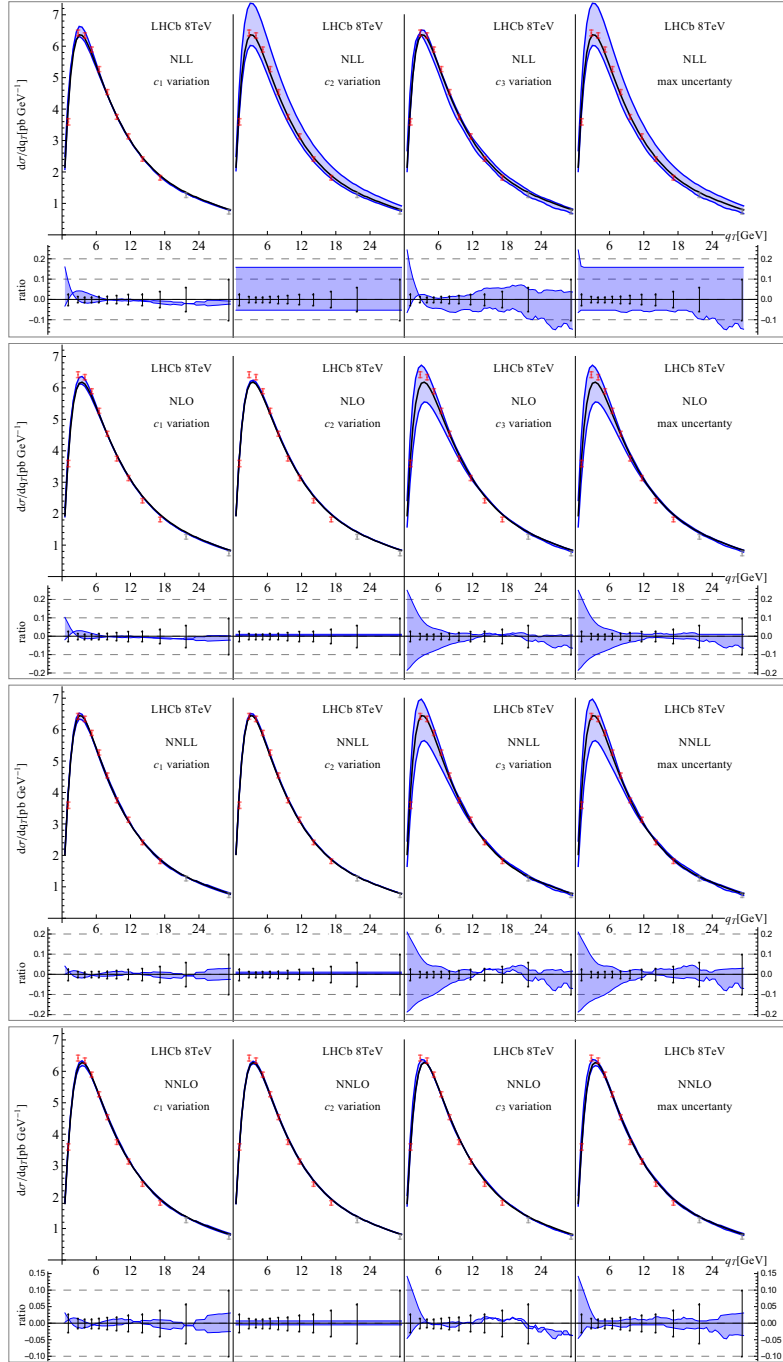


Figure 14: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

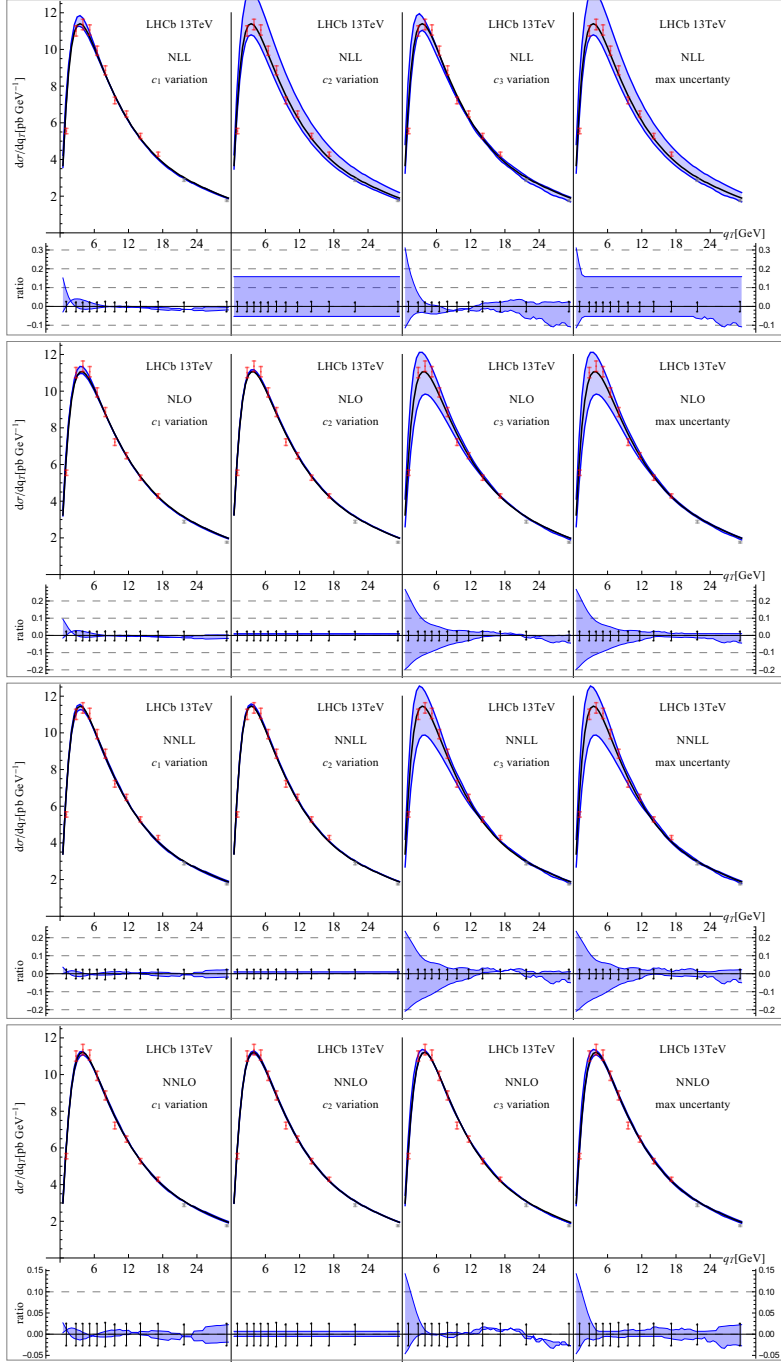


Figure 15: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

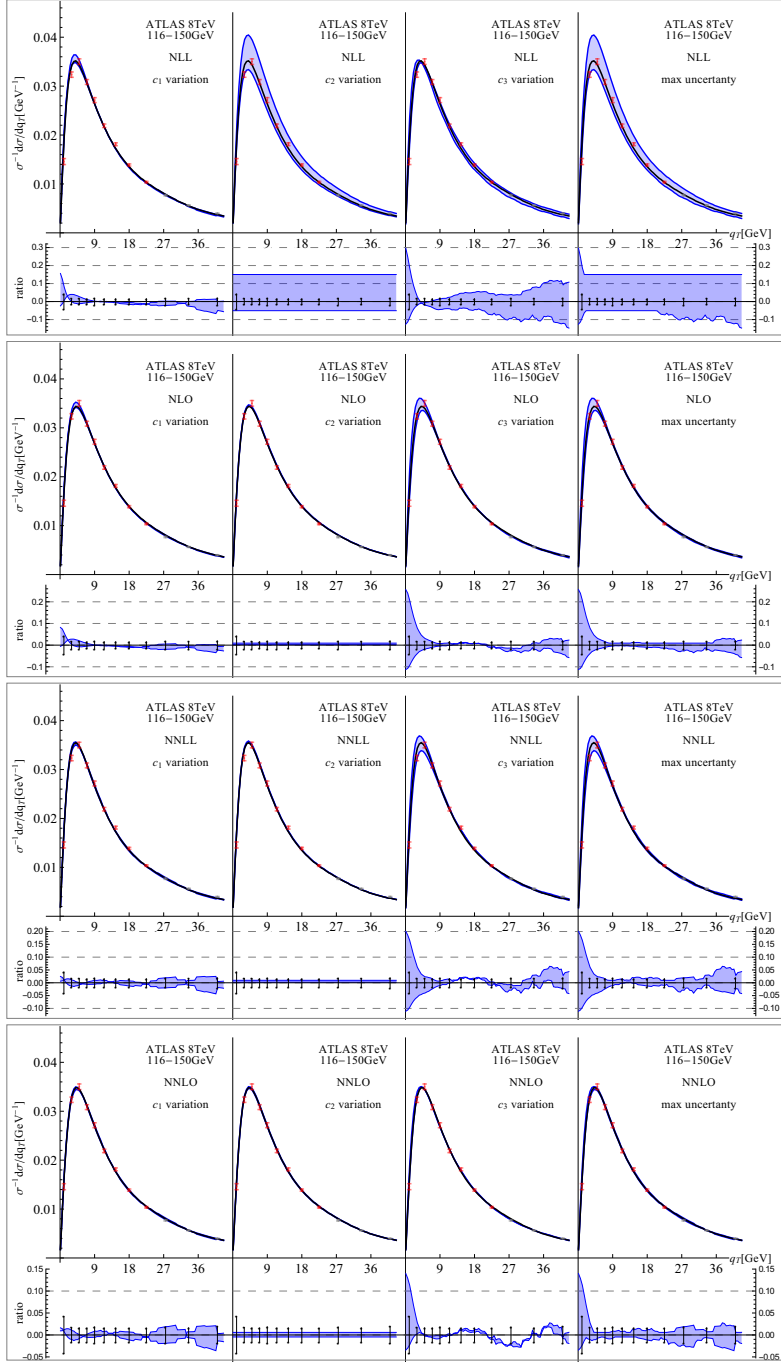


Figure 16: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



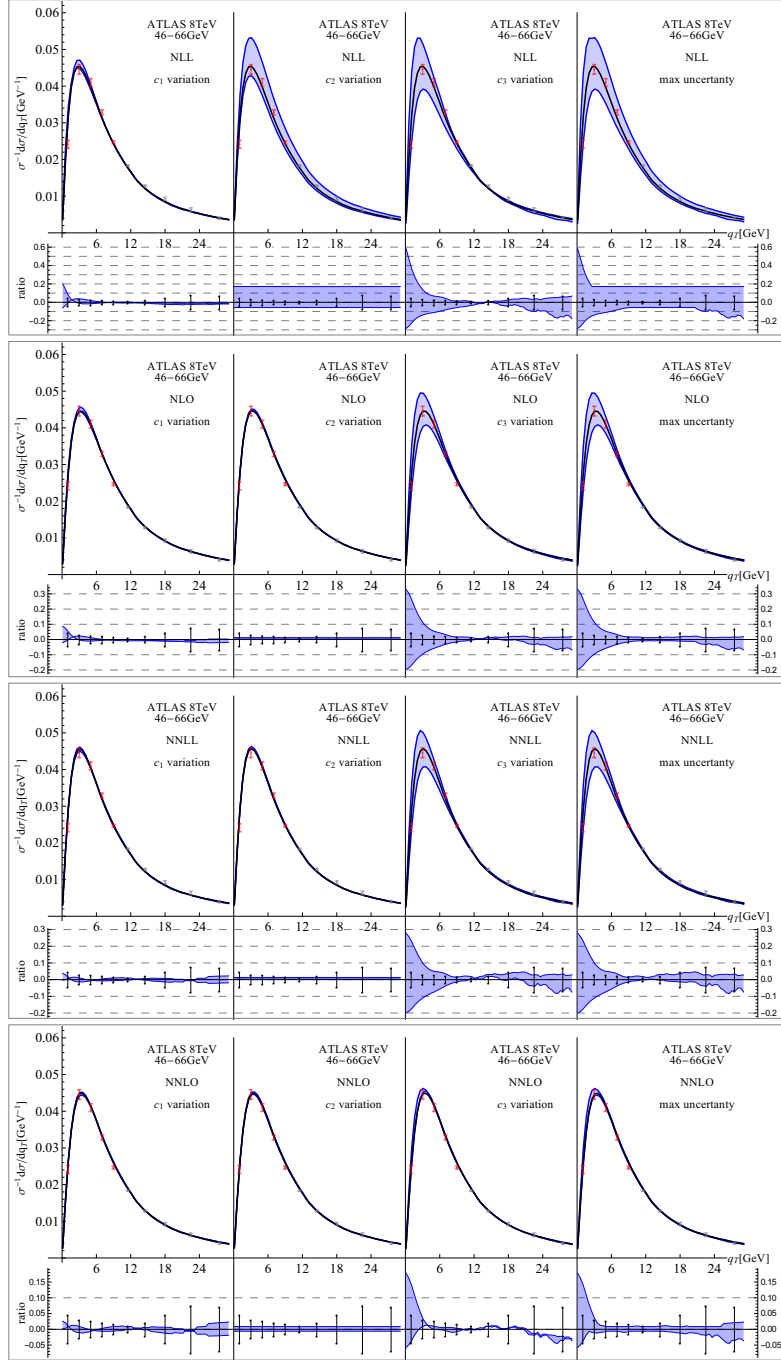


Figure 17: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

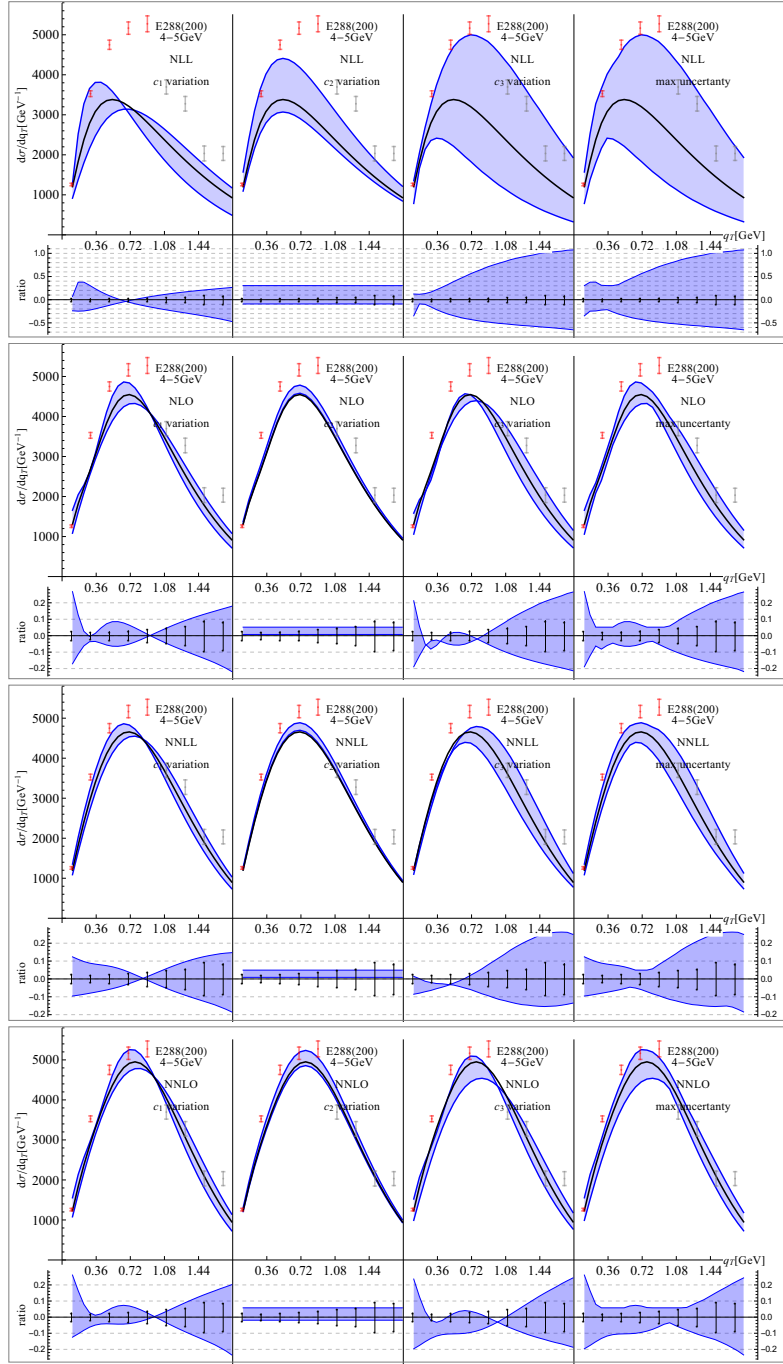


Figure 18: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

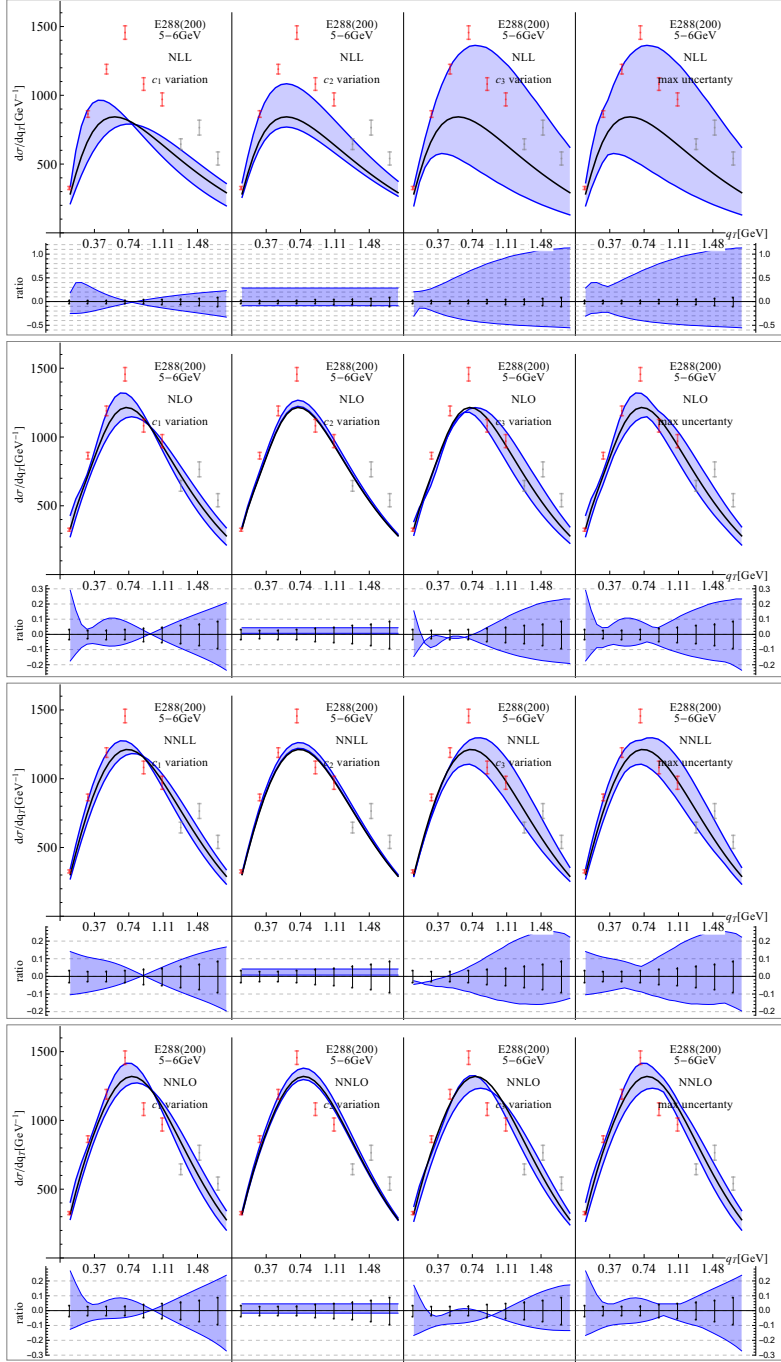


Figure 19: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

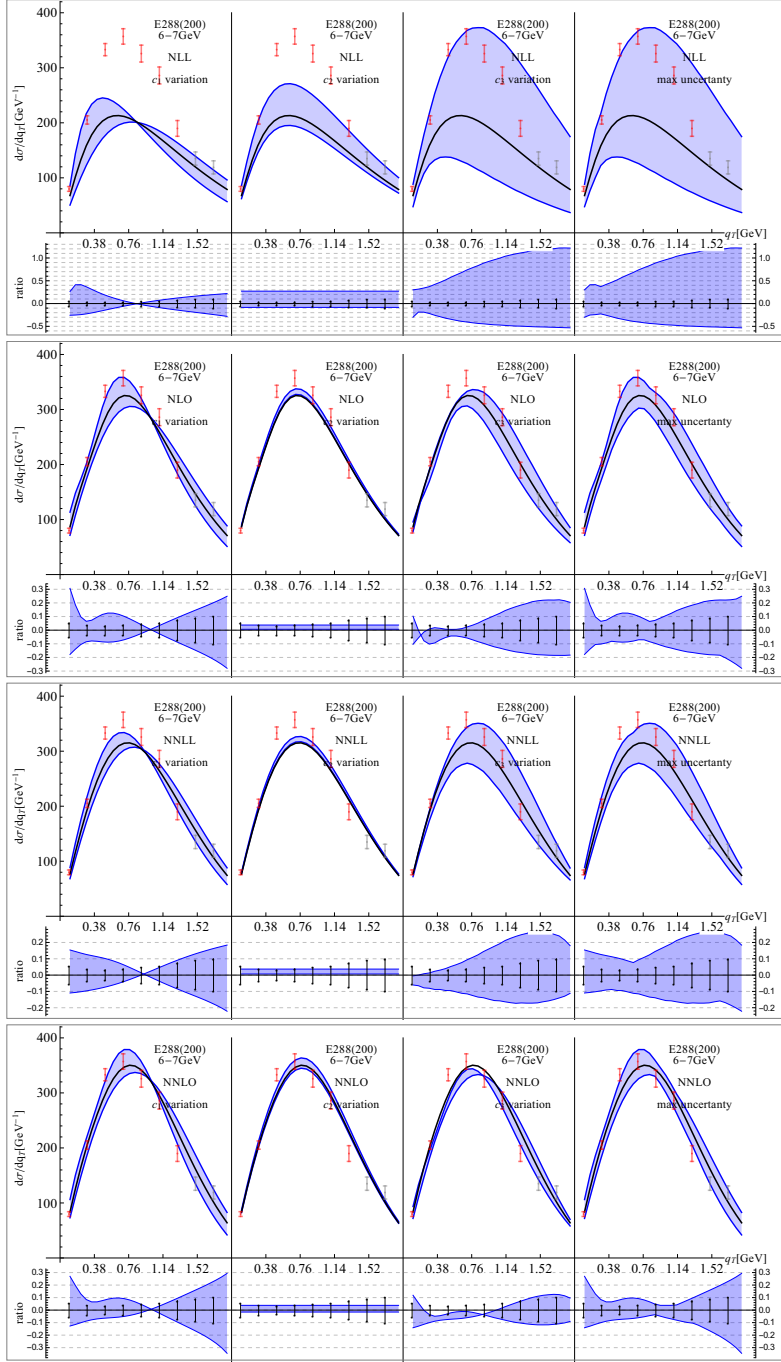


Figure 20: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

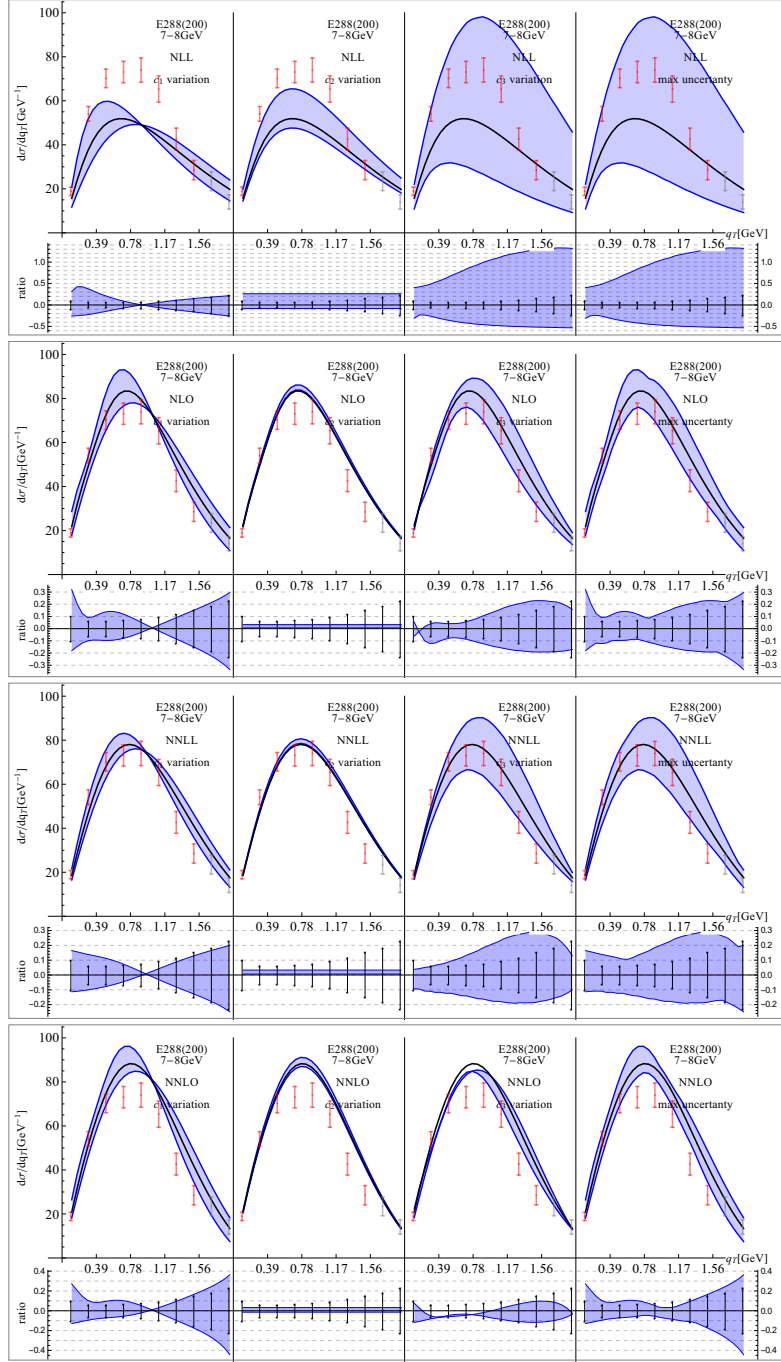


Figure 21: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

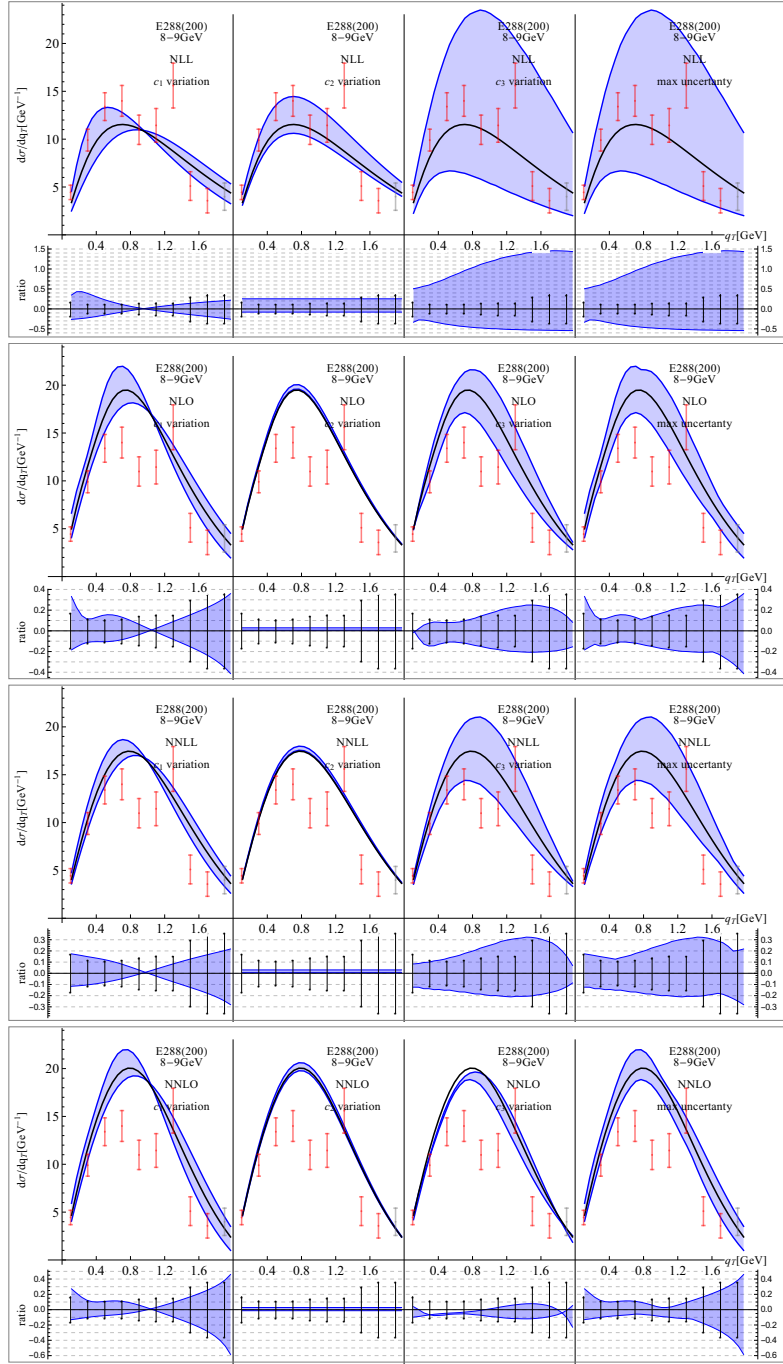


Figure 22: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

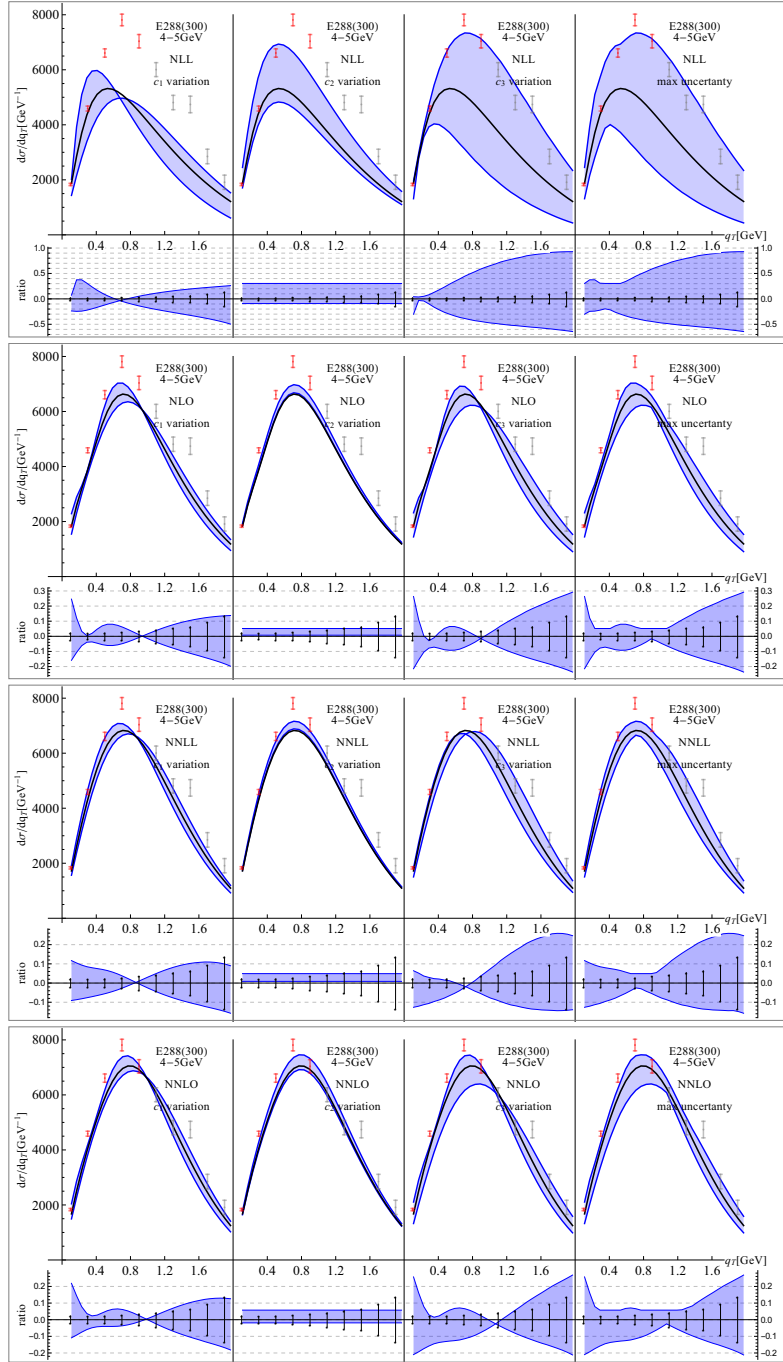


Figure 23: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

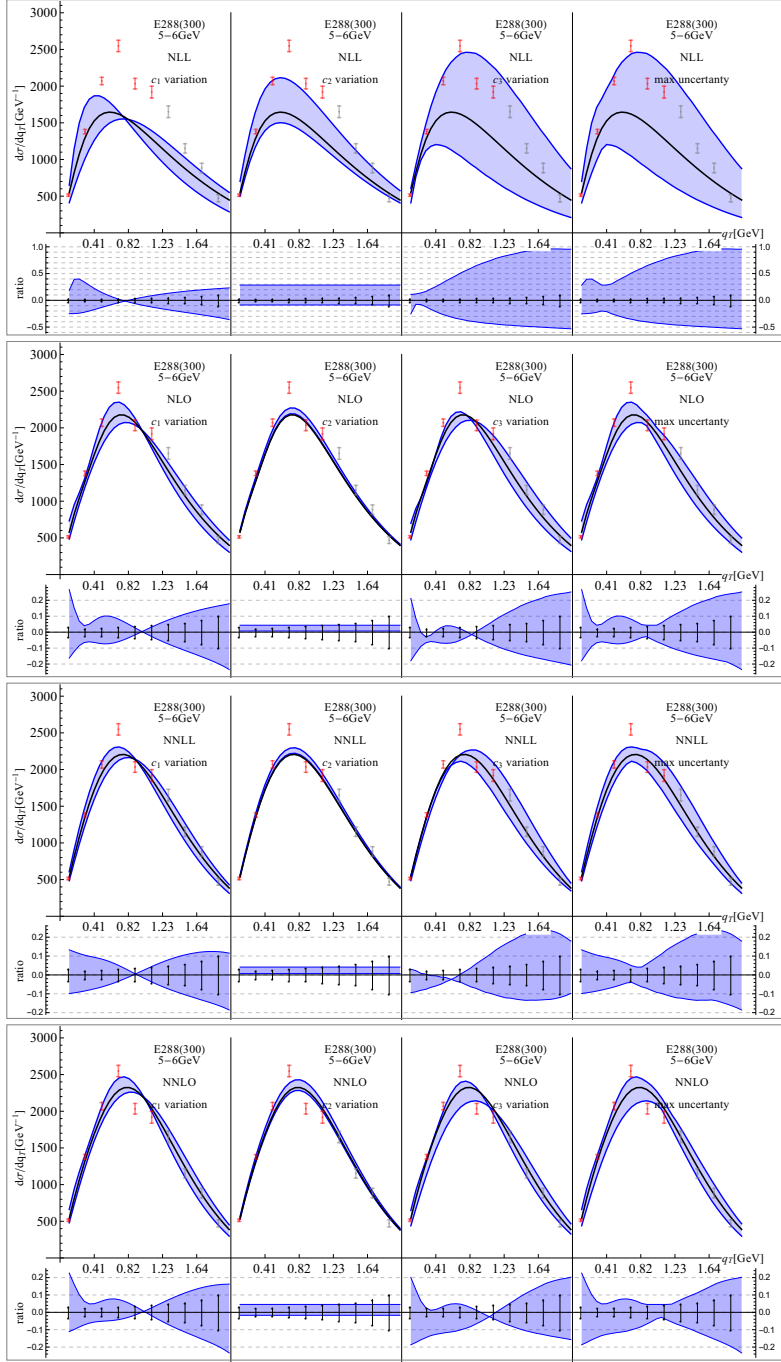


Figure 24: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



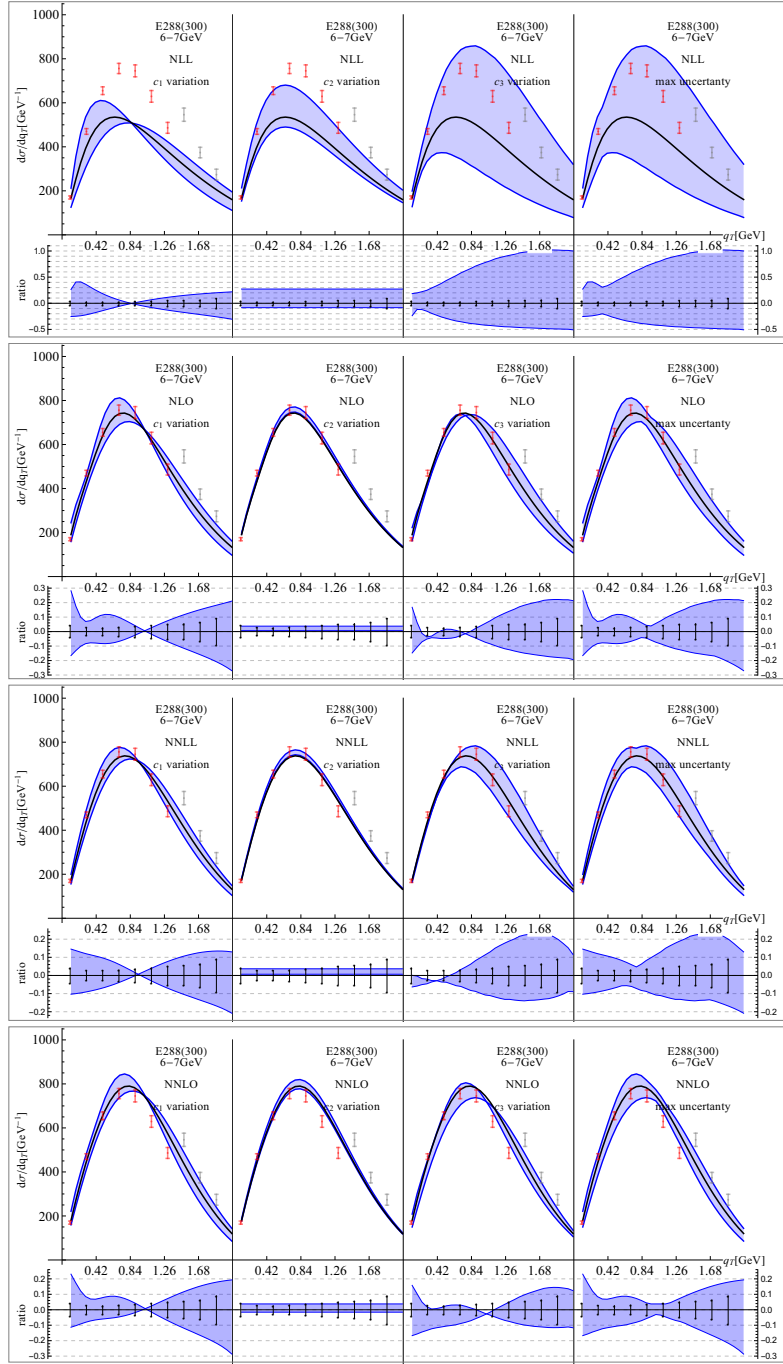


Figure 25: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

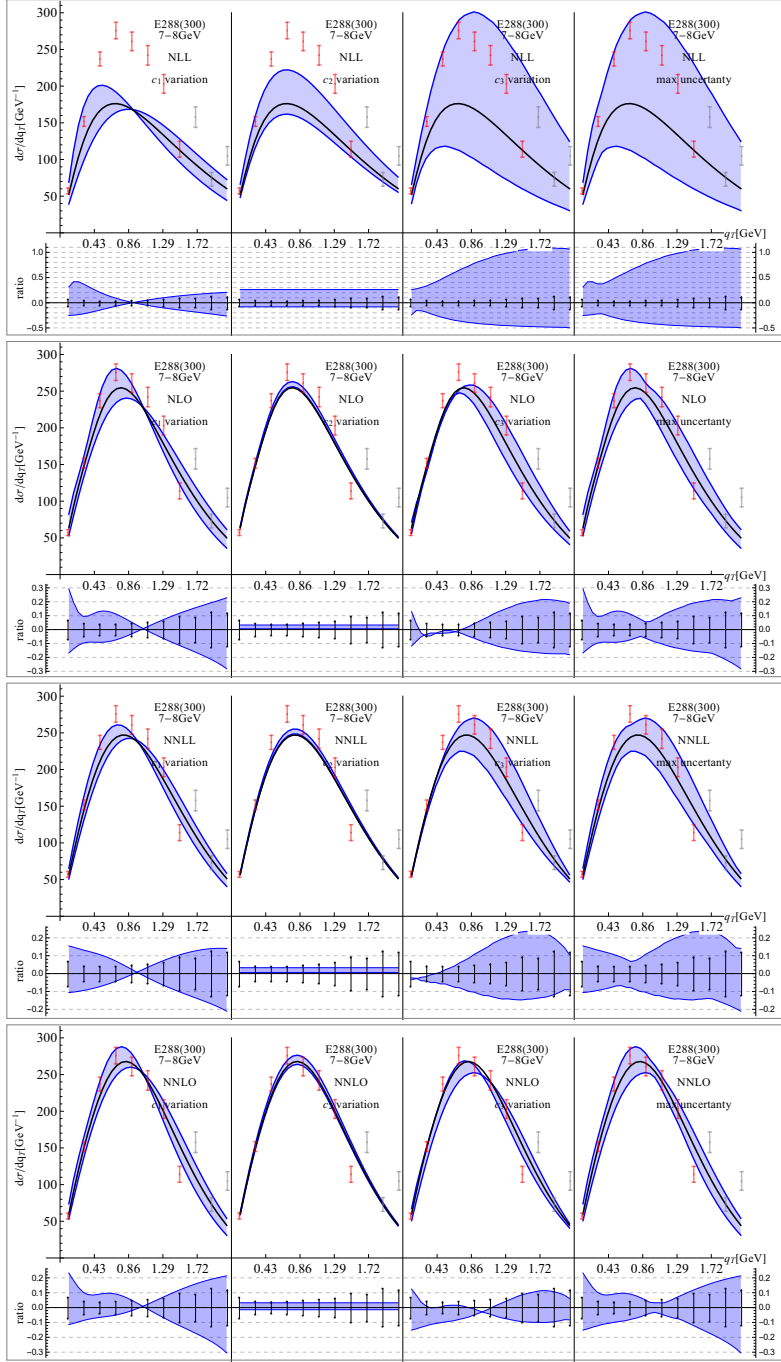


Figure 26: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

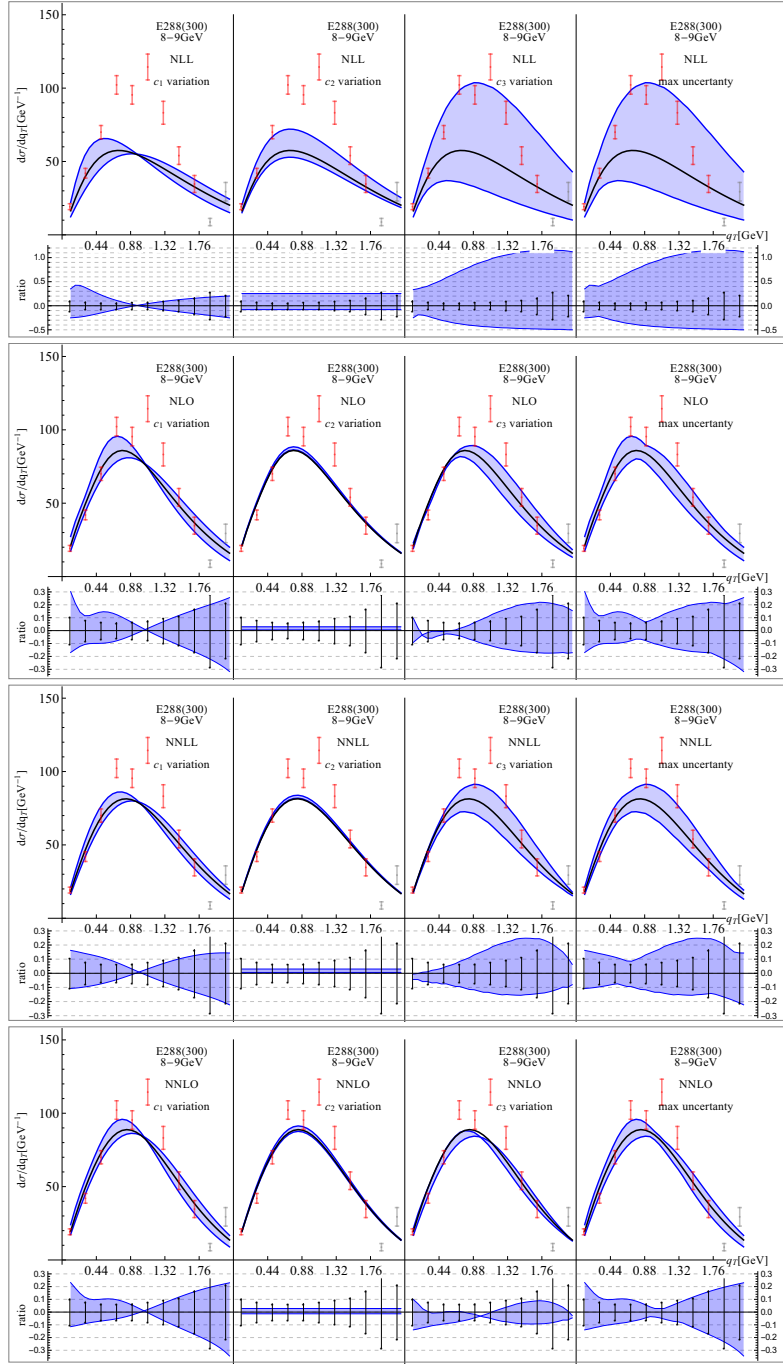


Figure 27: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

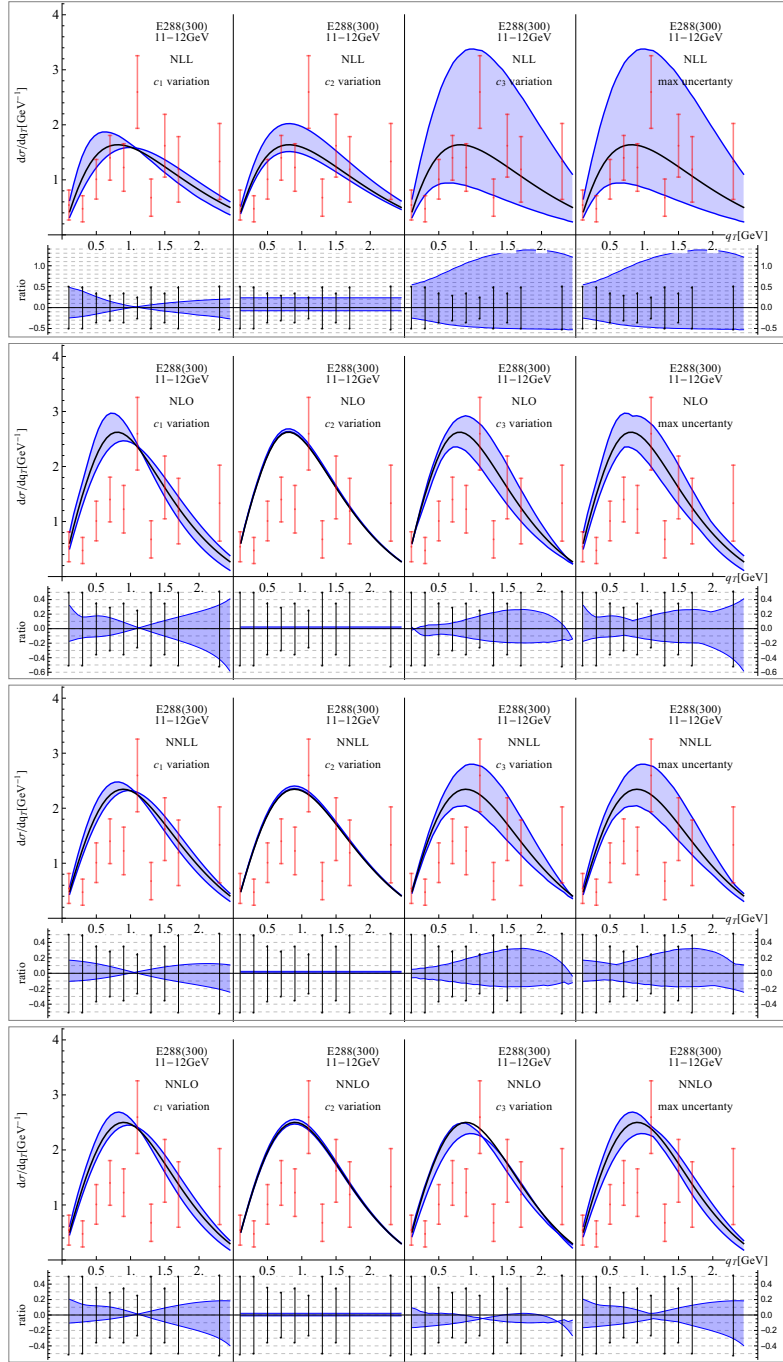


Figure 28: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

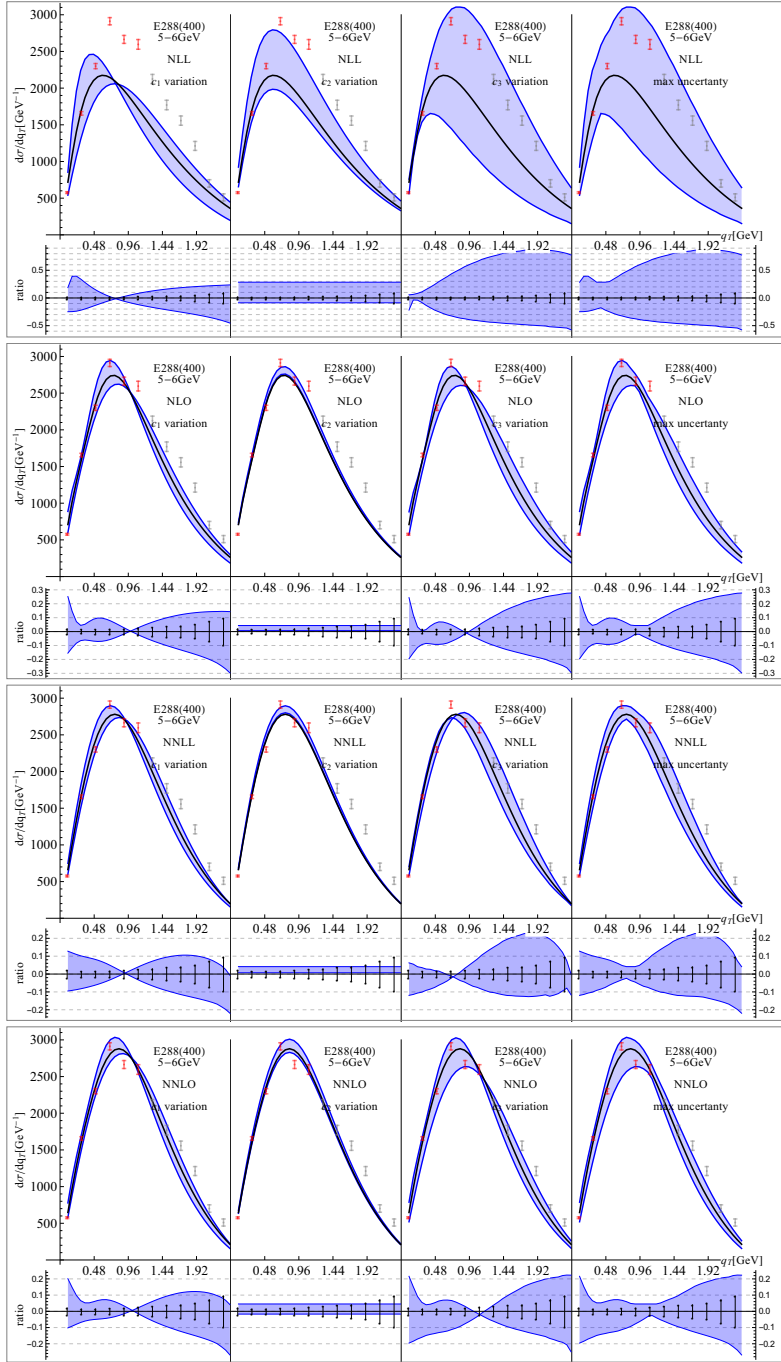


Figure 29: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

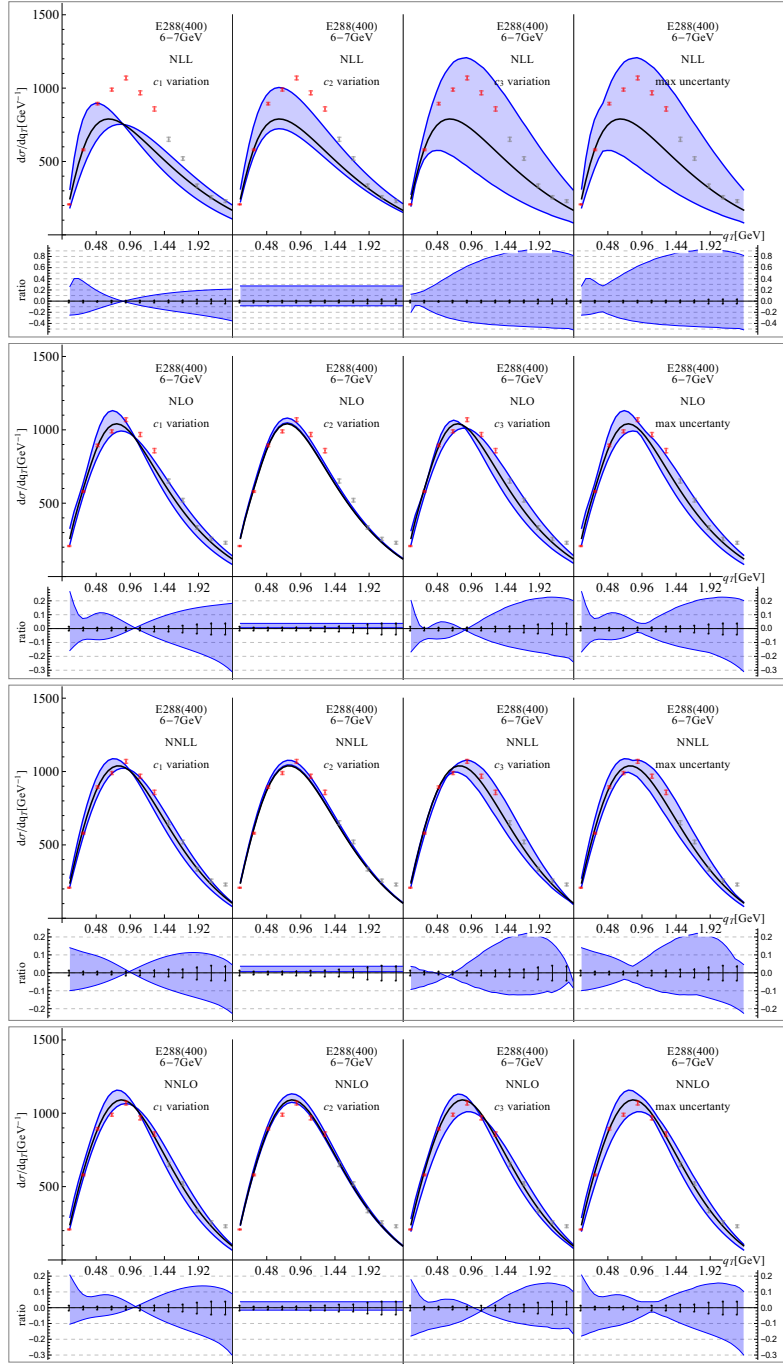


Figure 30: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

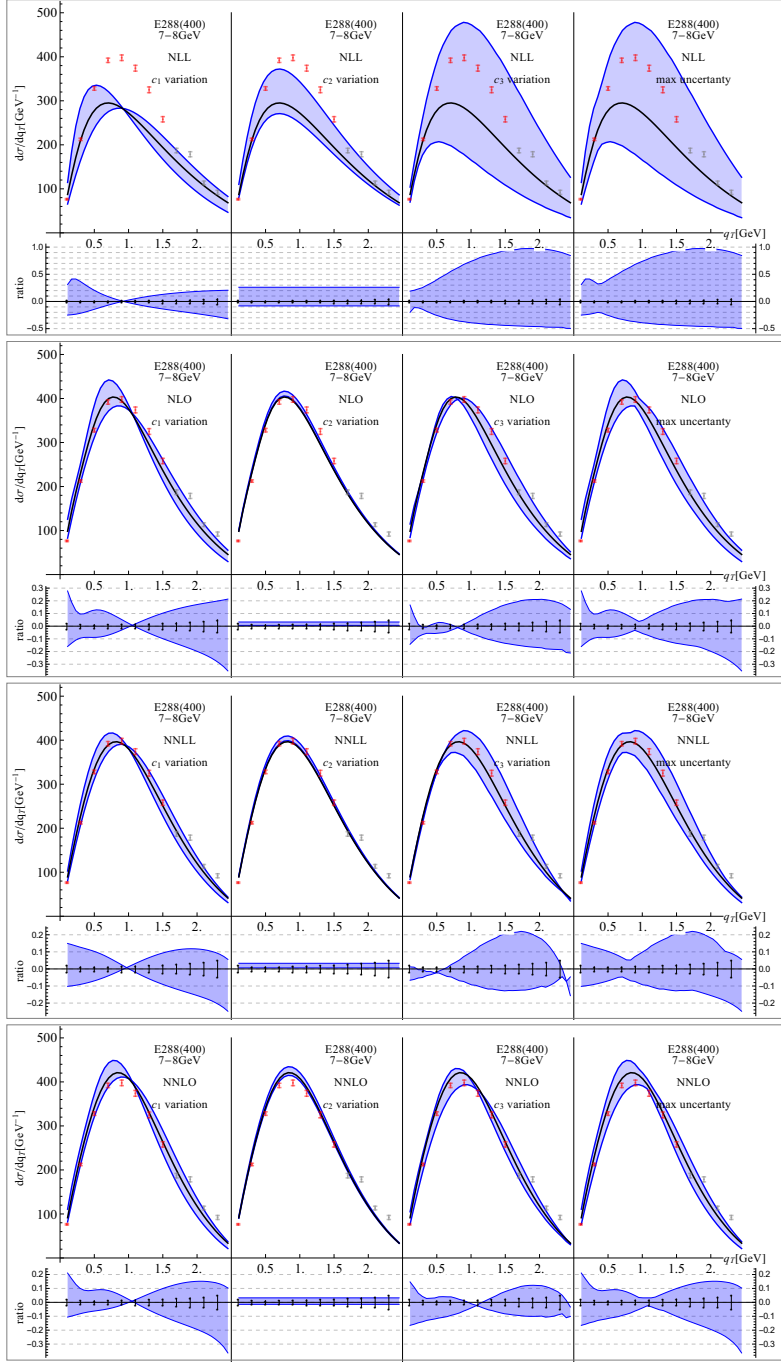


Figure 31: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

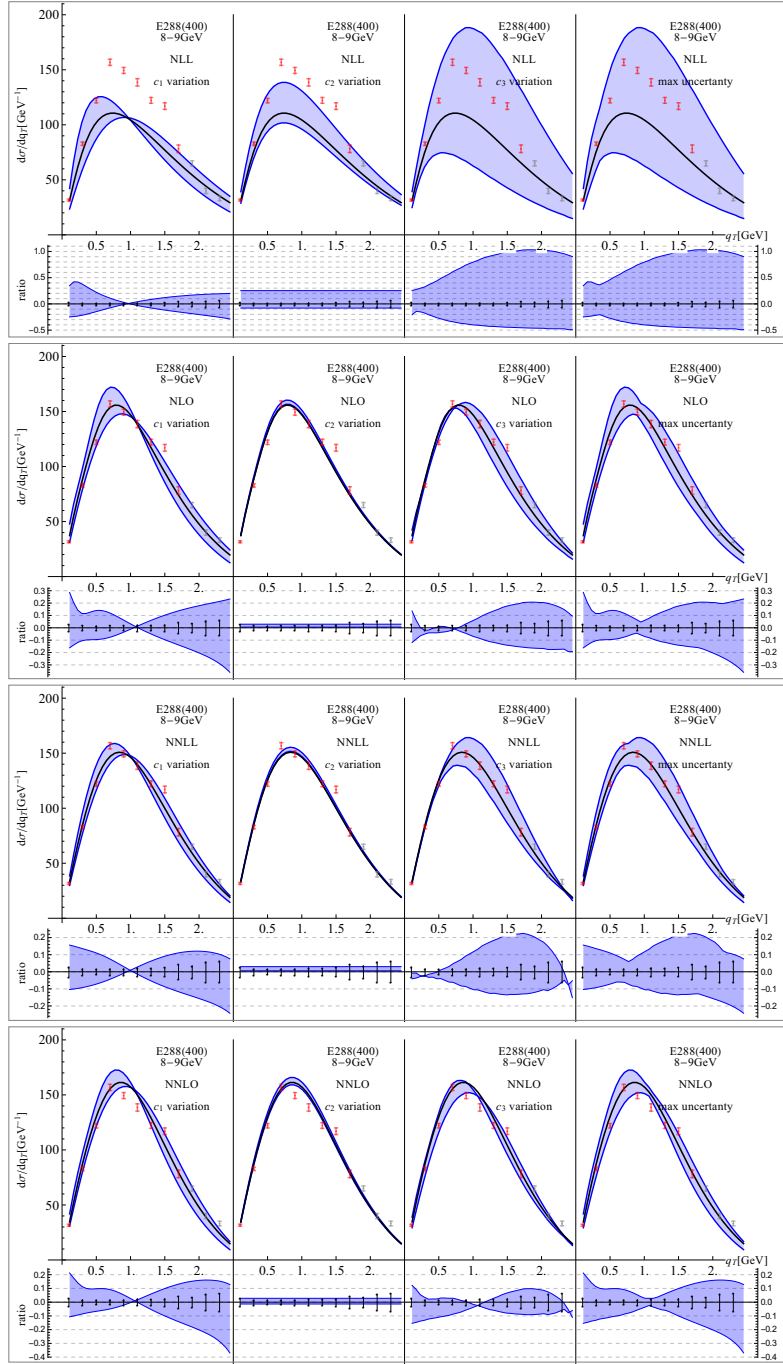


Figure 32: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



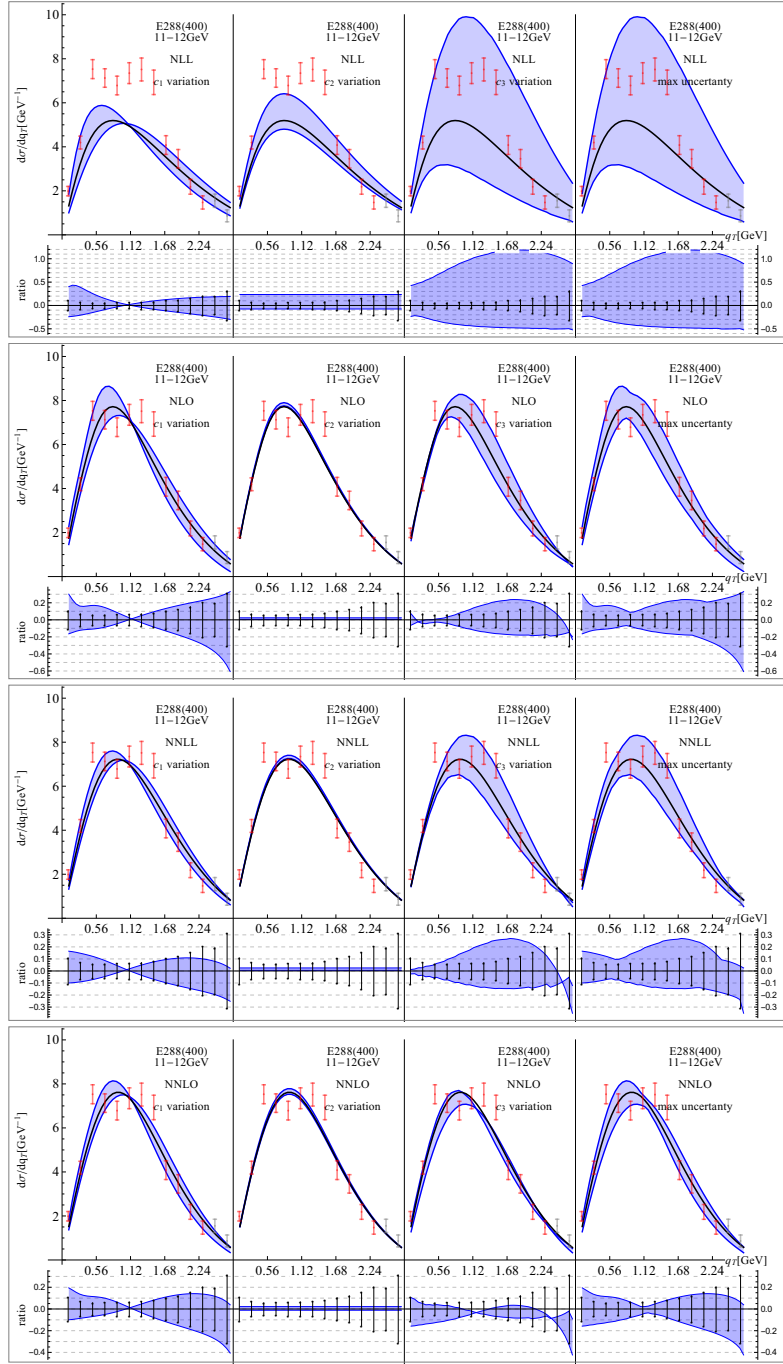


Figure 33: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

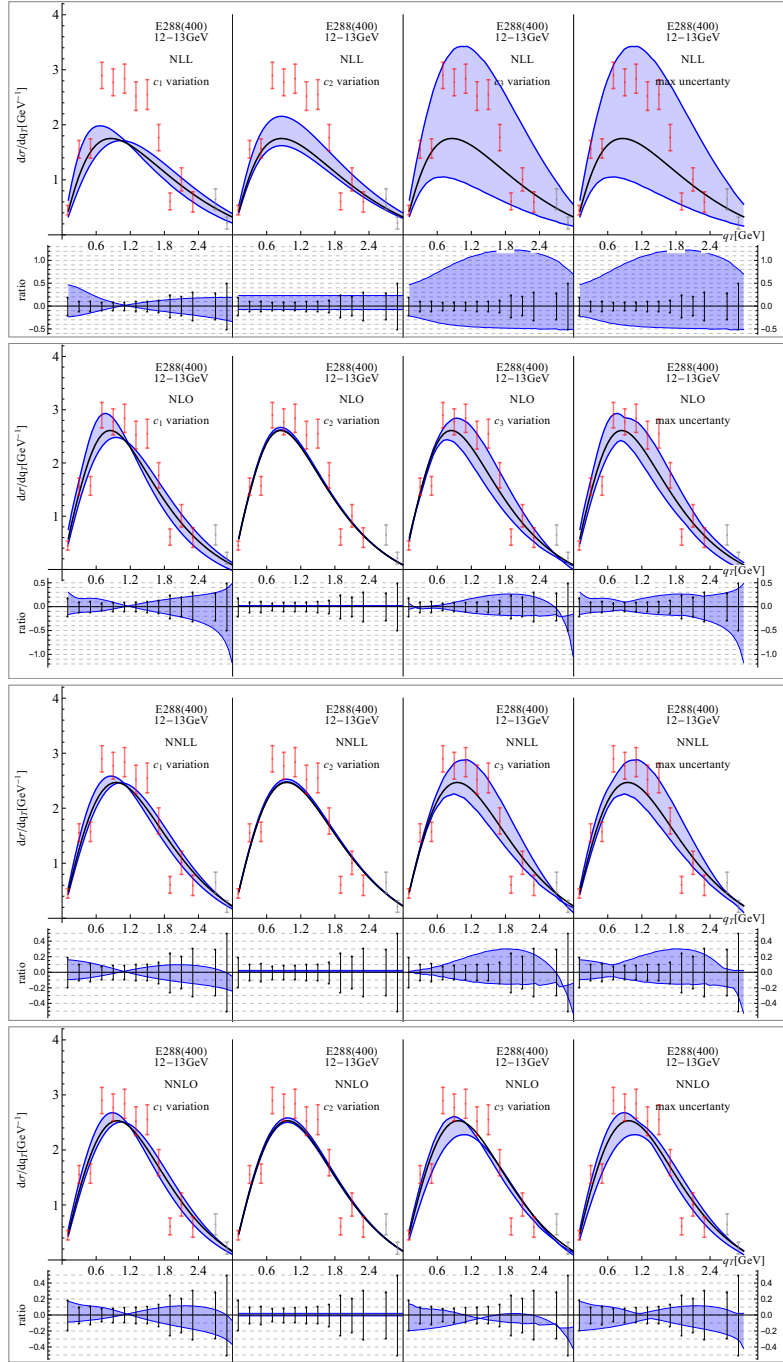


Figure 34: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

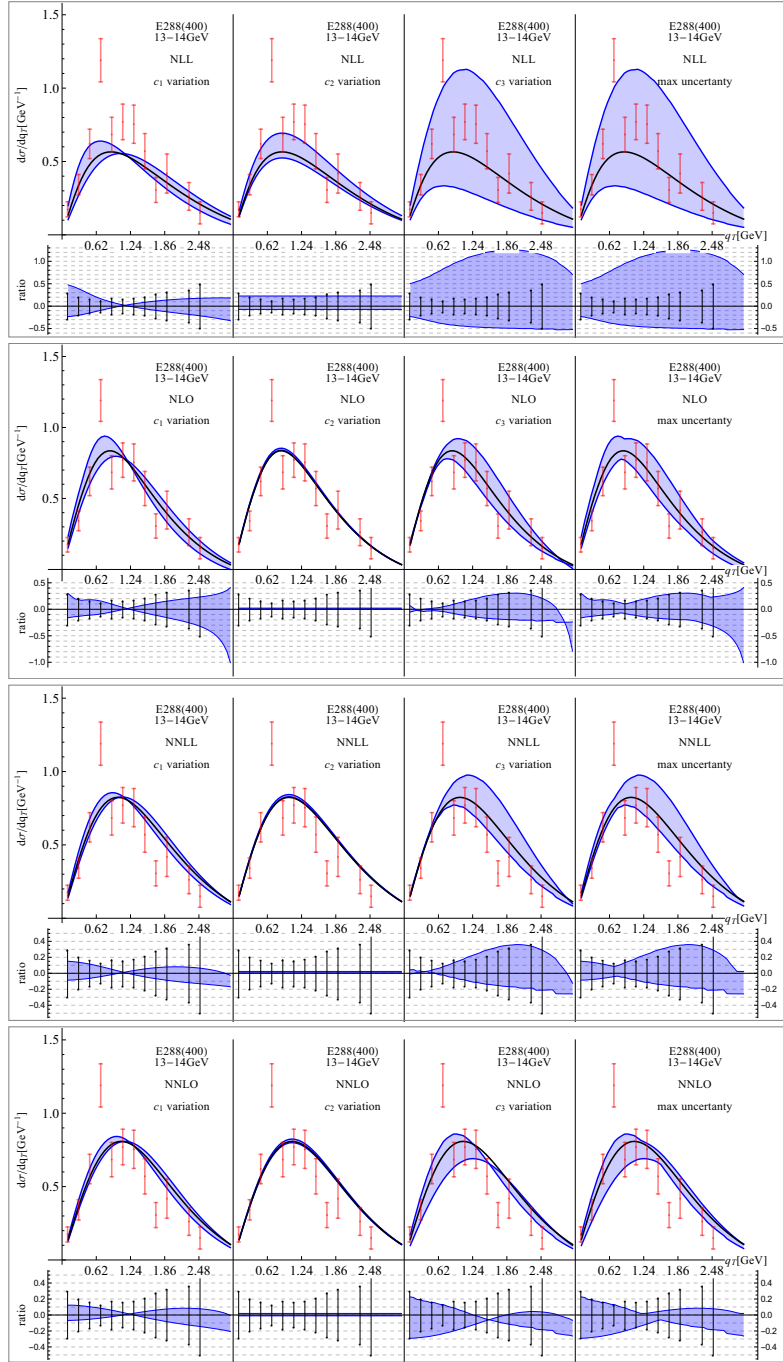


Figure 35: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

### **3 Uncertainties for M2**

Theoretical uncertainties  
order-by-order  
model 2

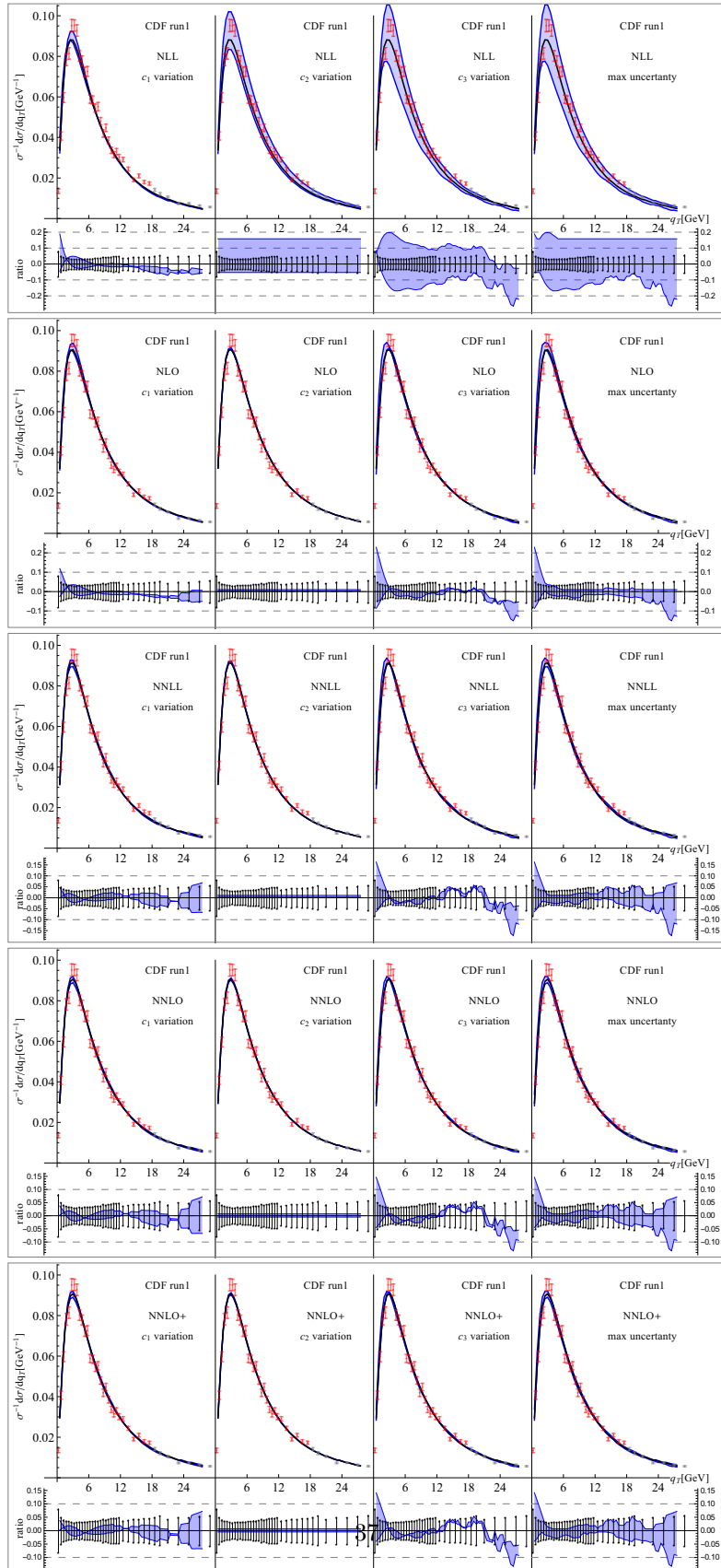


Figure 36: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

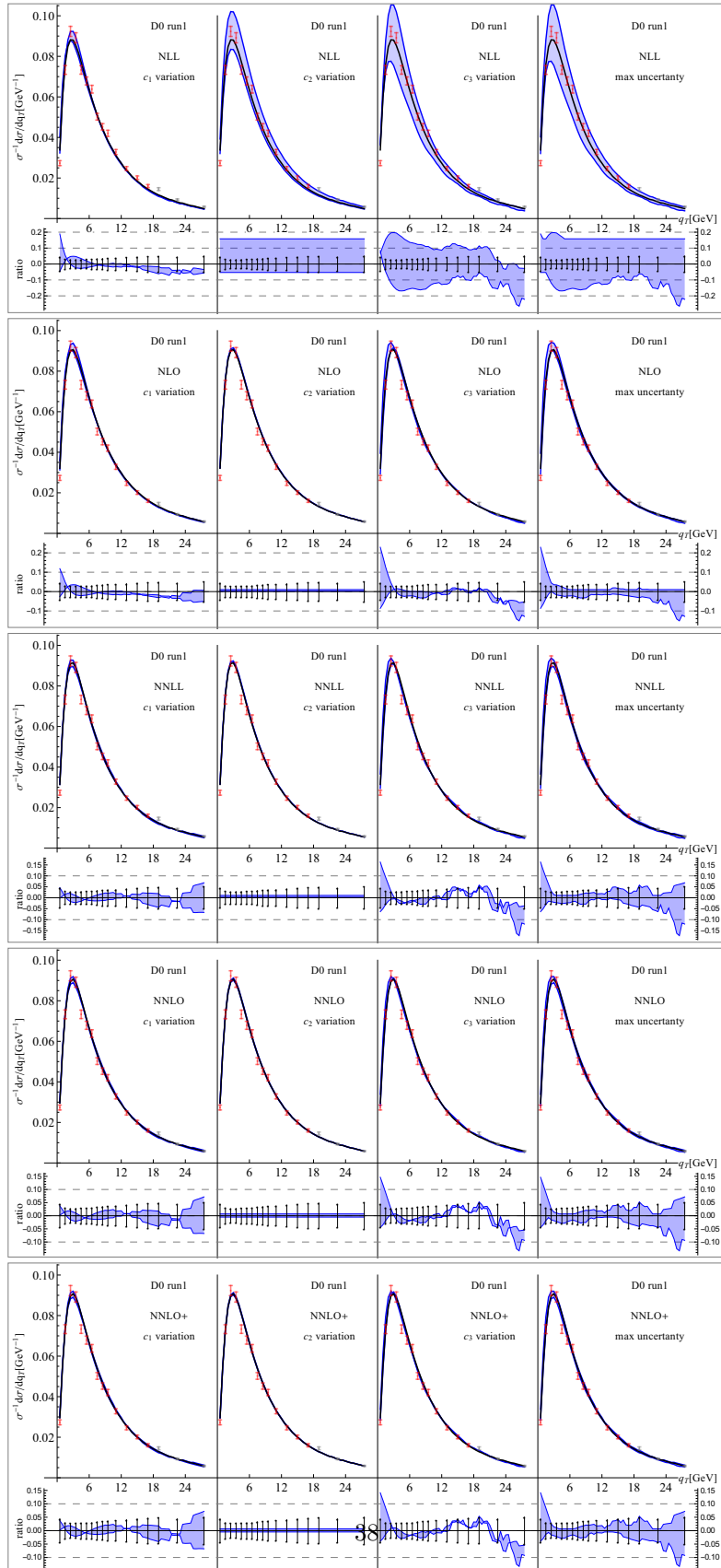


Figure 37: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

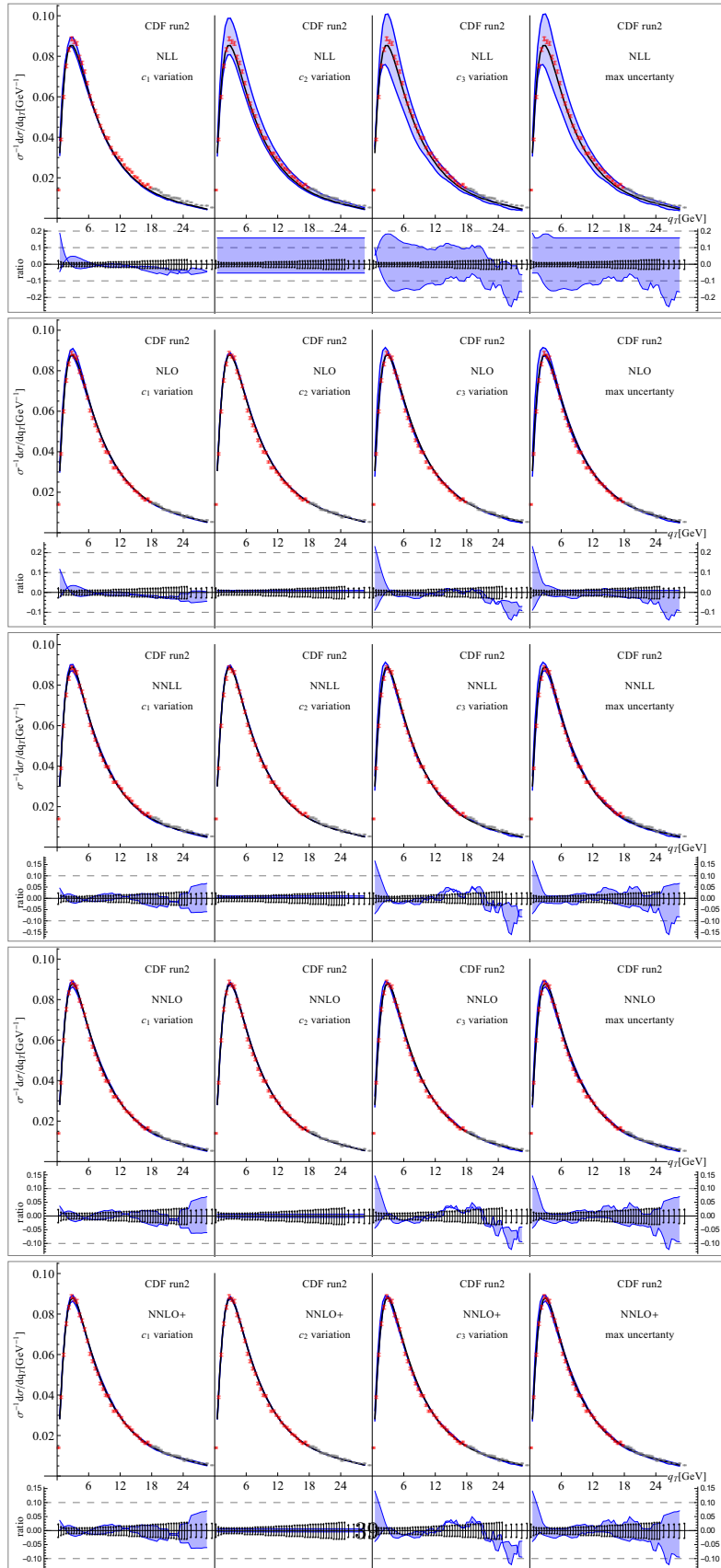


Figure 38: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

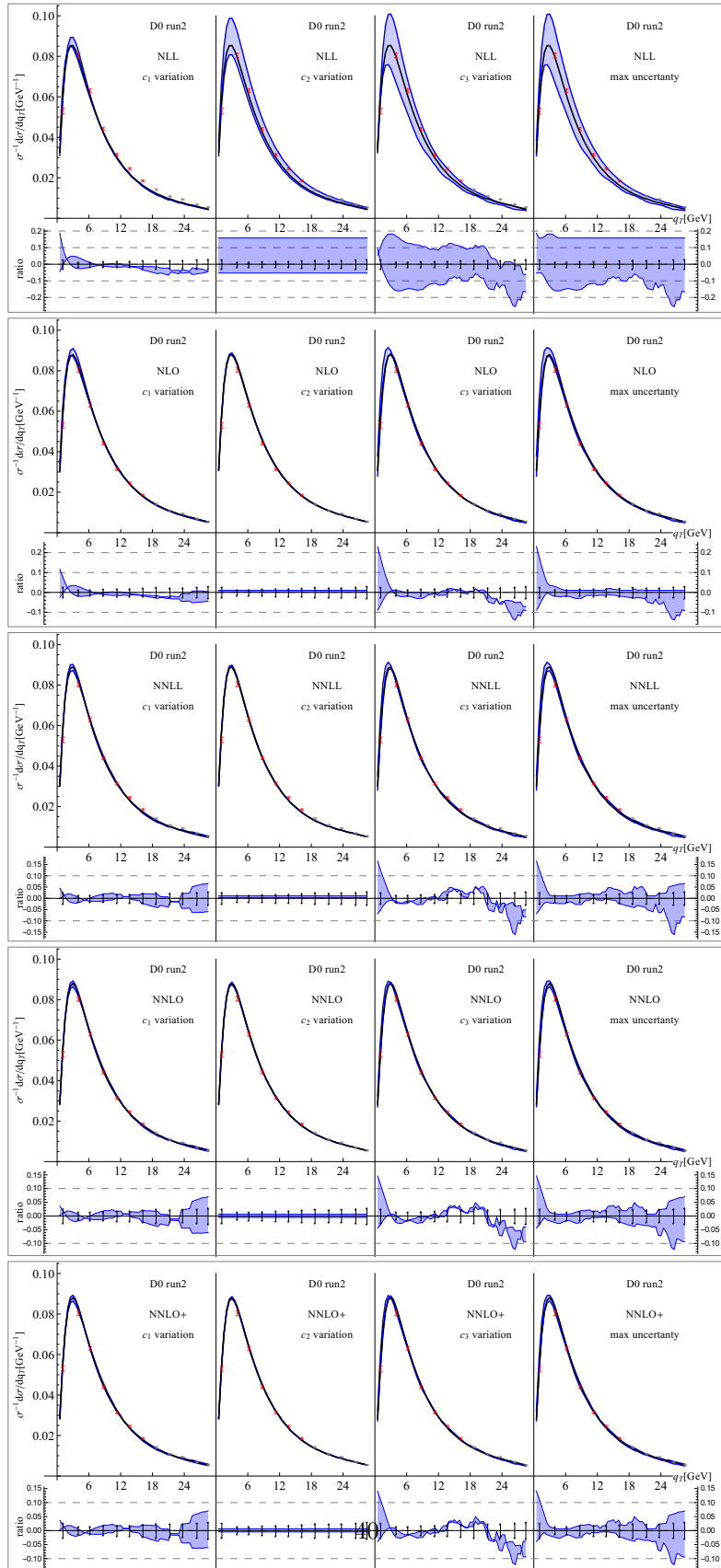


Figure 39: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



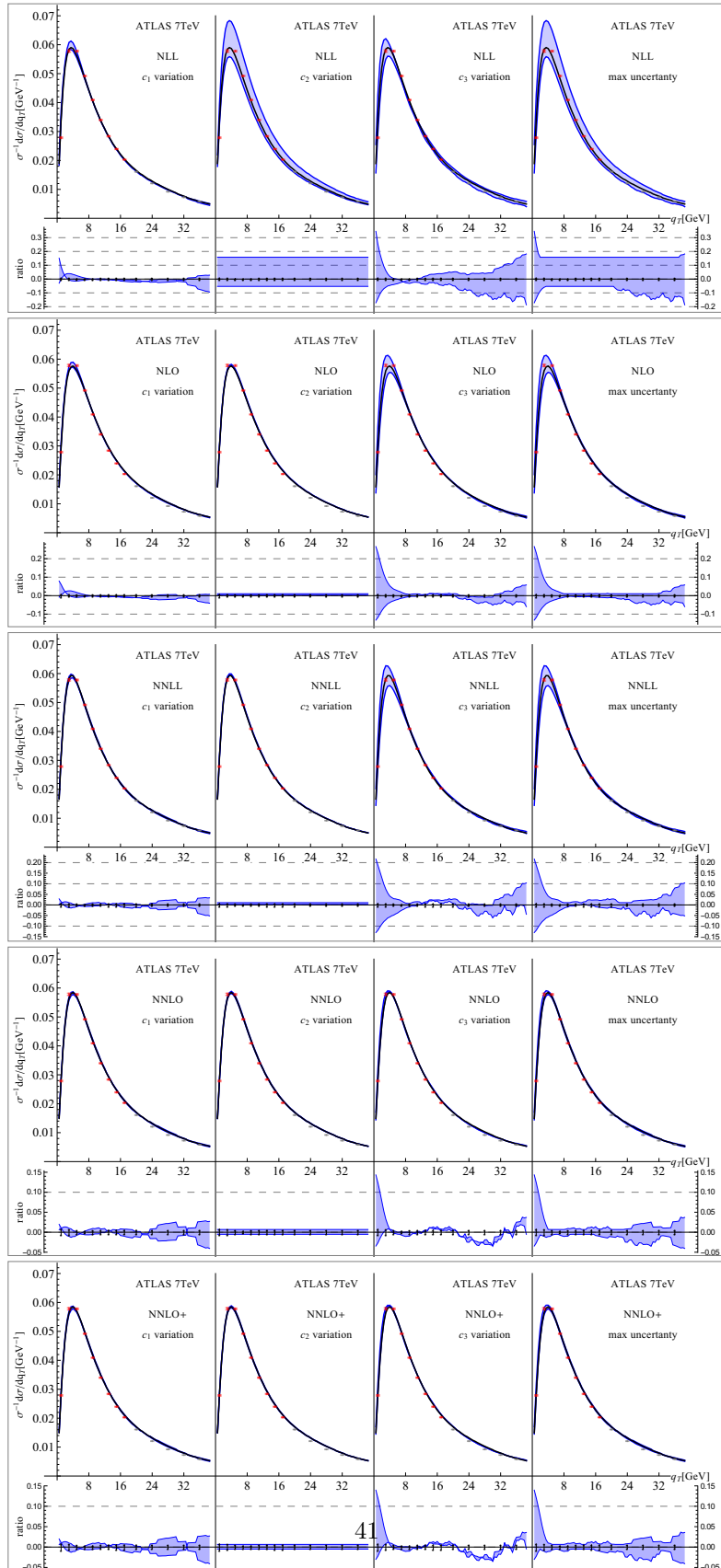


Figure 40: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

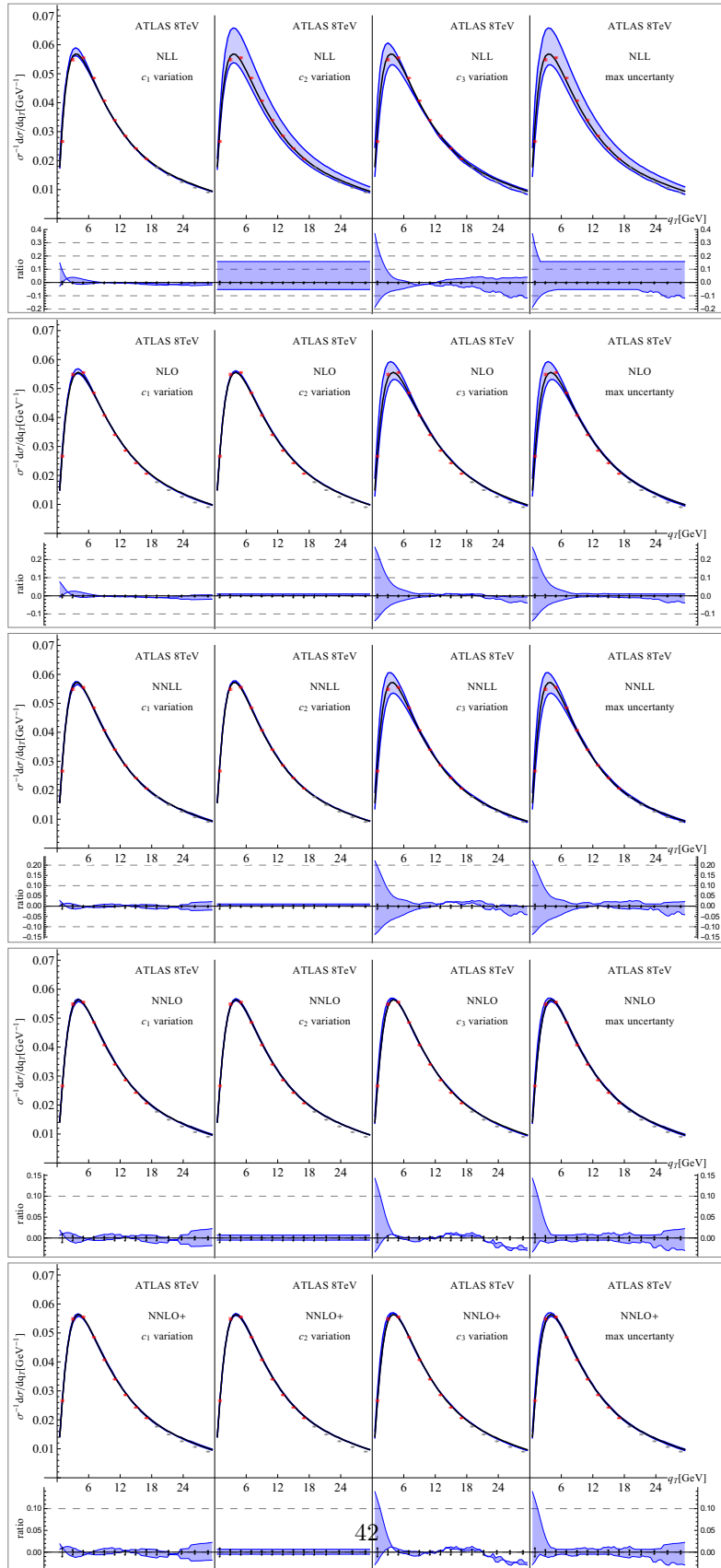


Figure 41: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

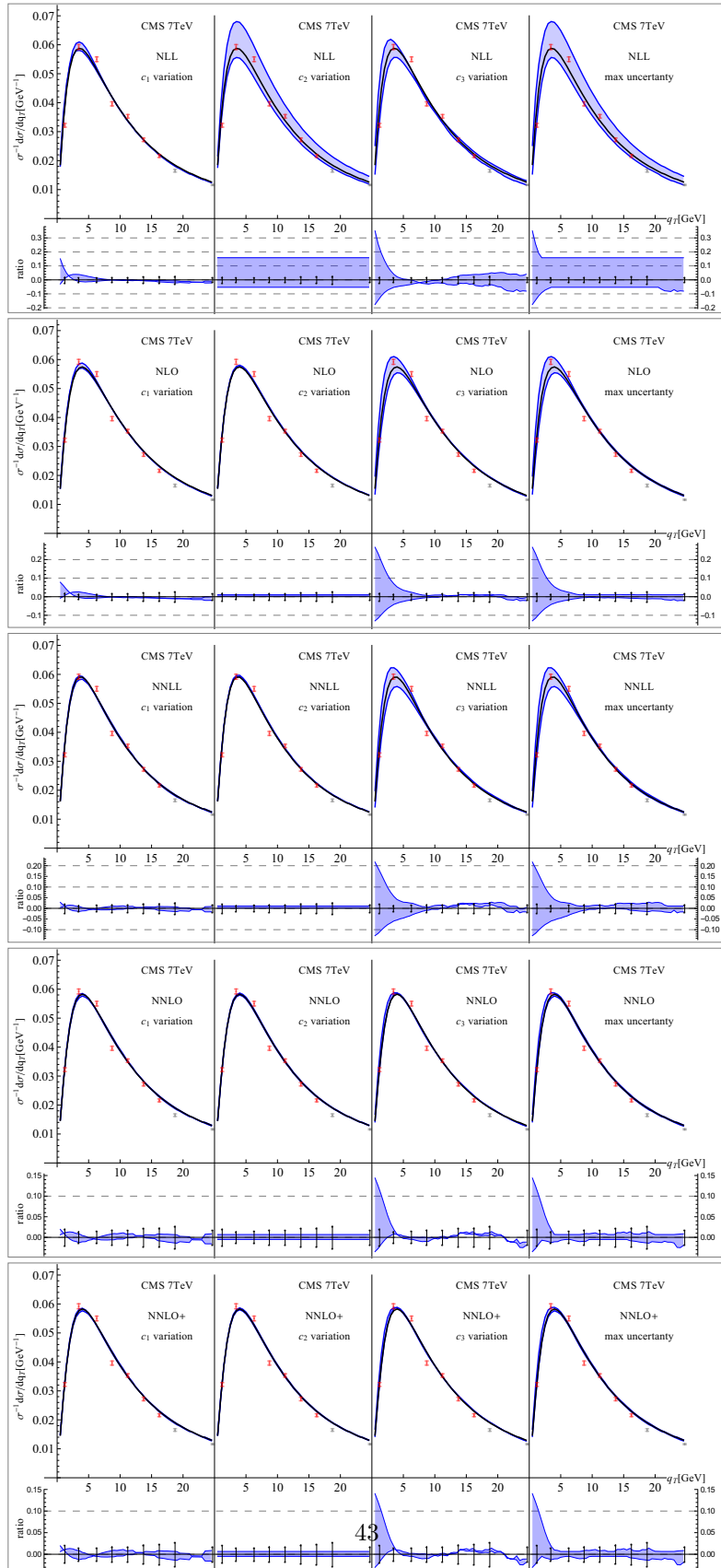


Figure 42: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

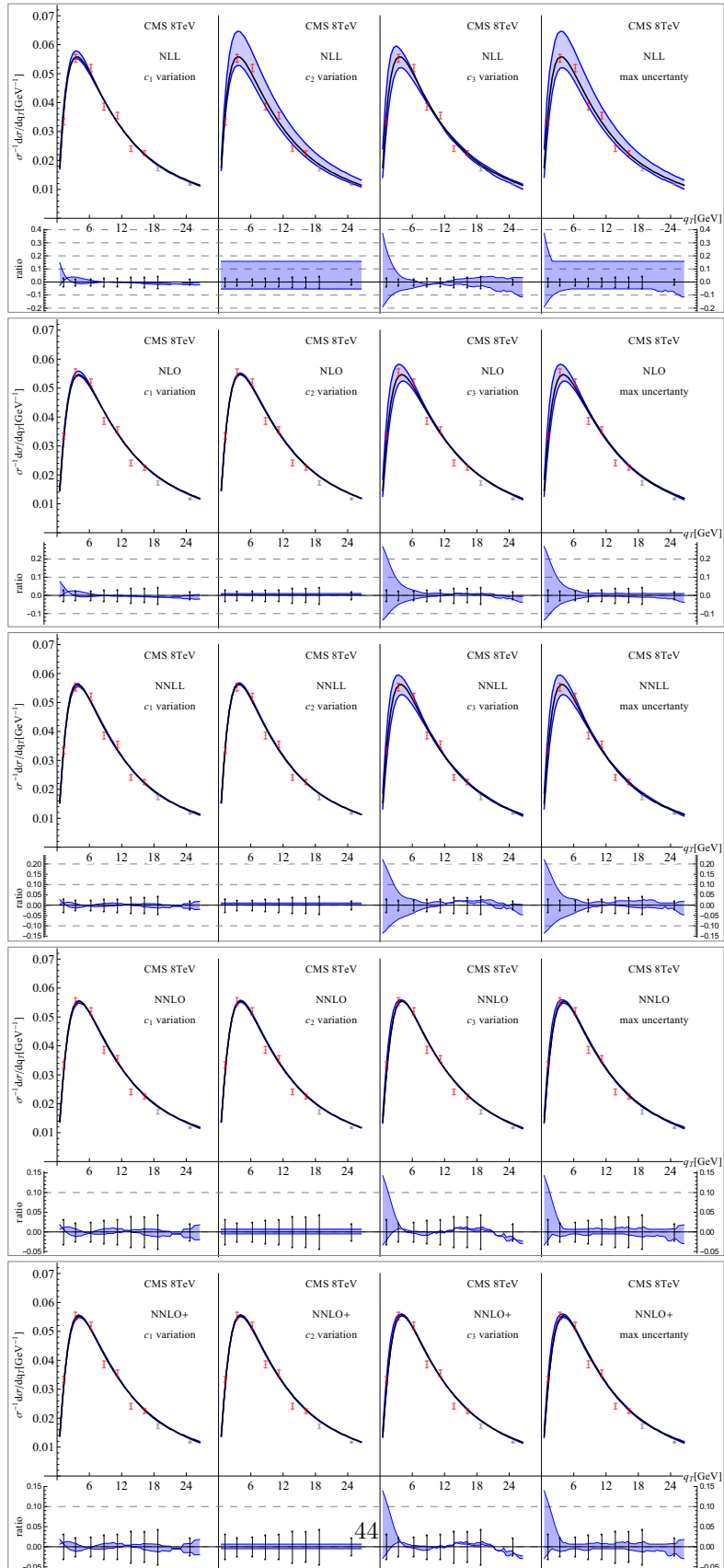


Figure 43: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

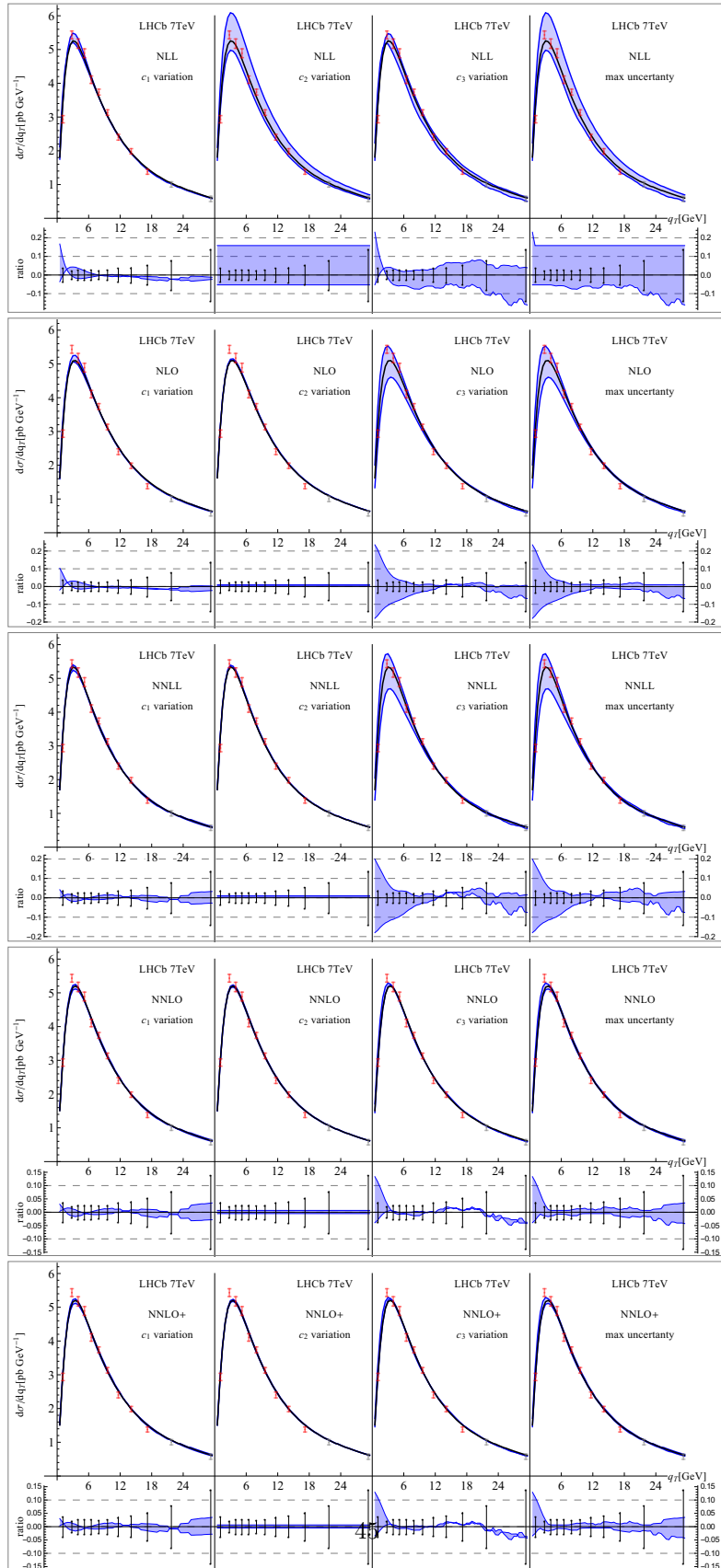


Figure 44: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

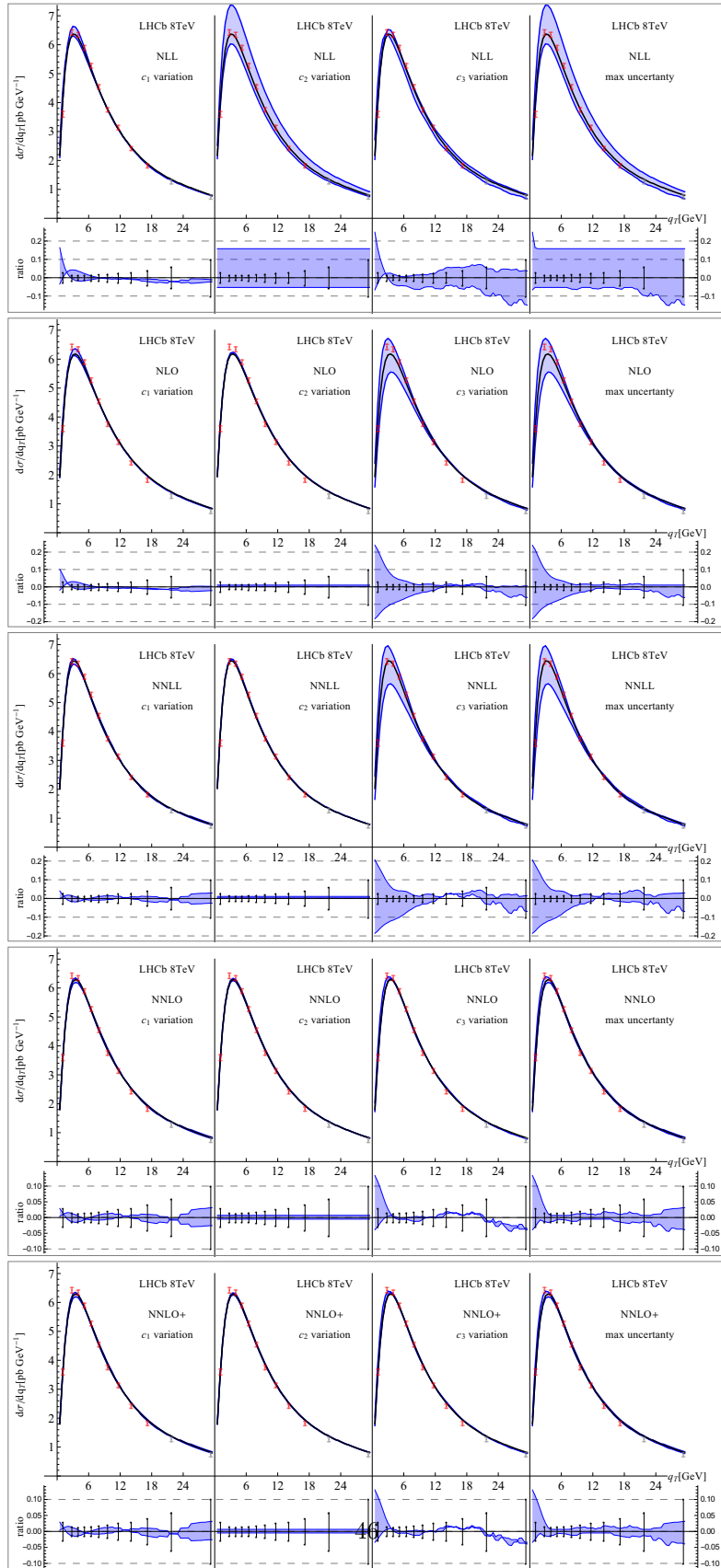


Figure 45: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

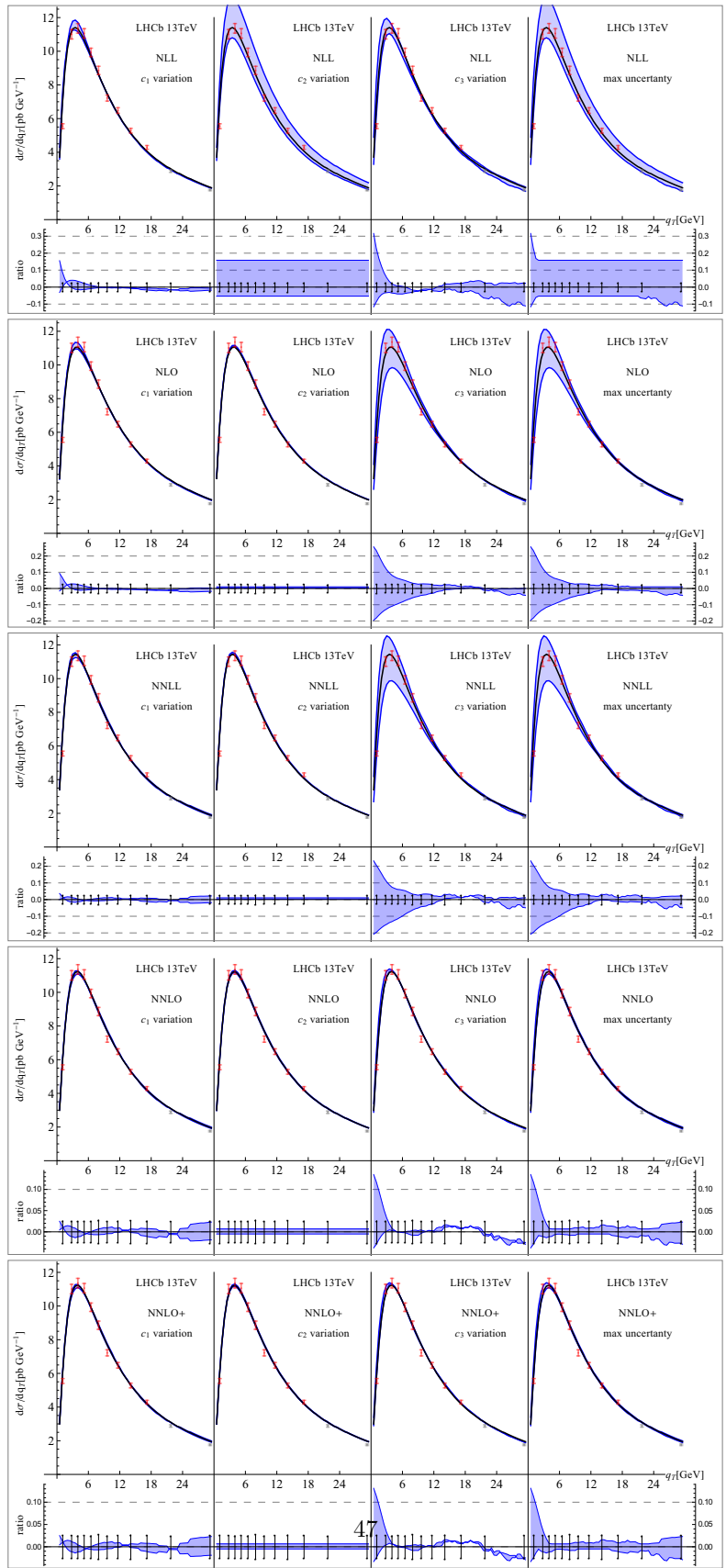


Figure 46: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

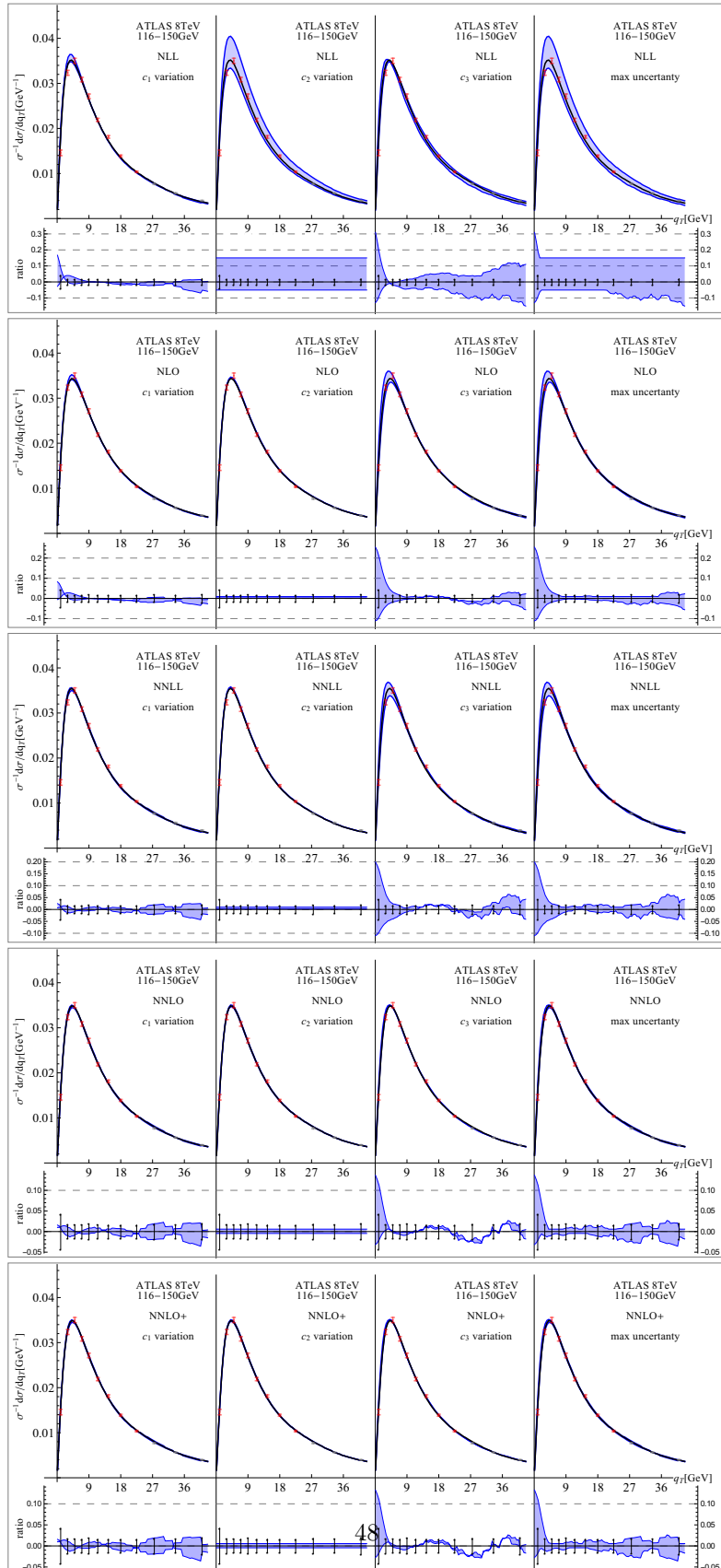


Figure 47: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



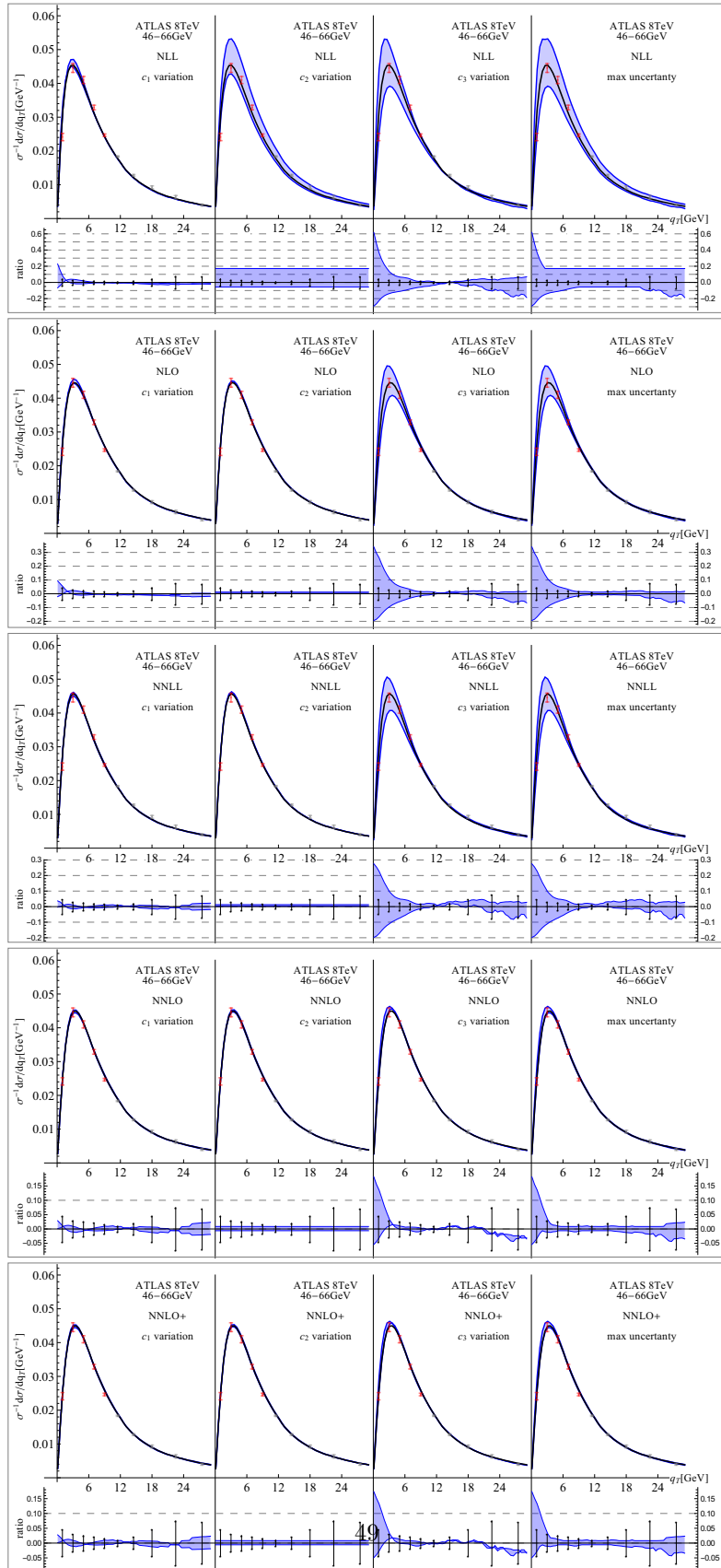


Figure 48: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

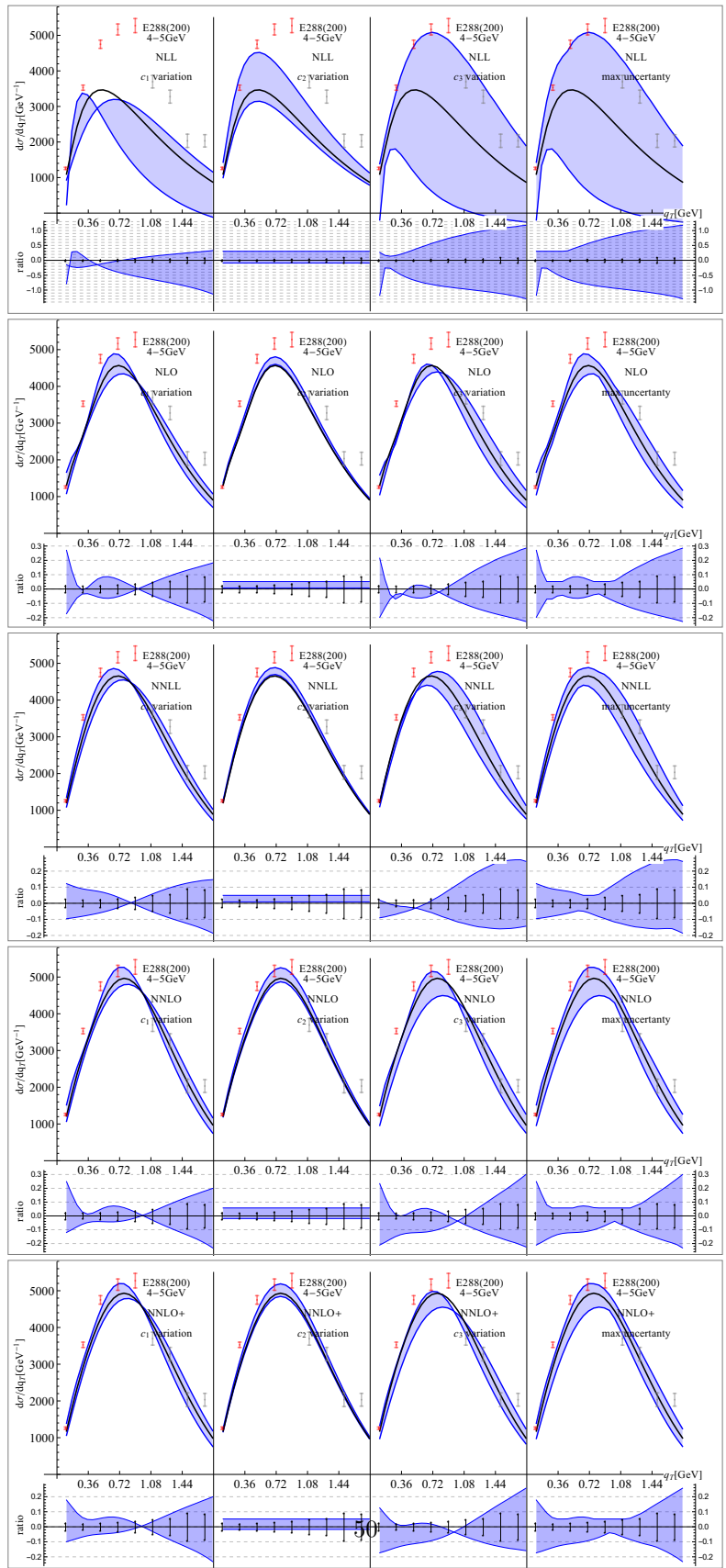


Figure 49: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

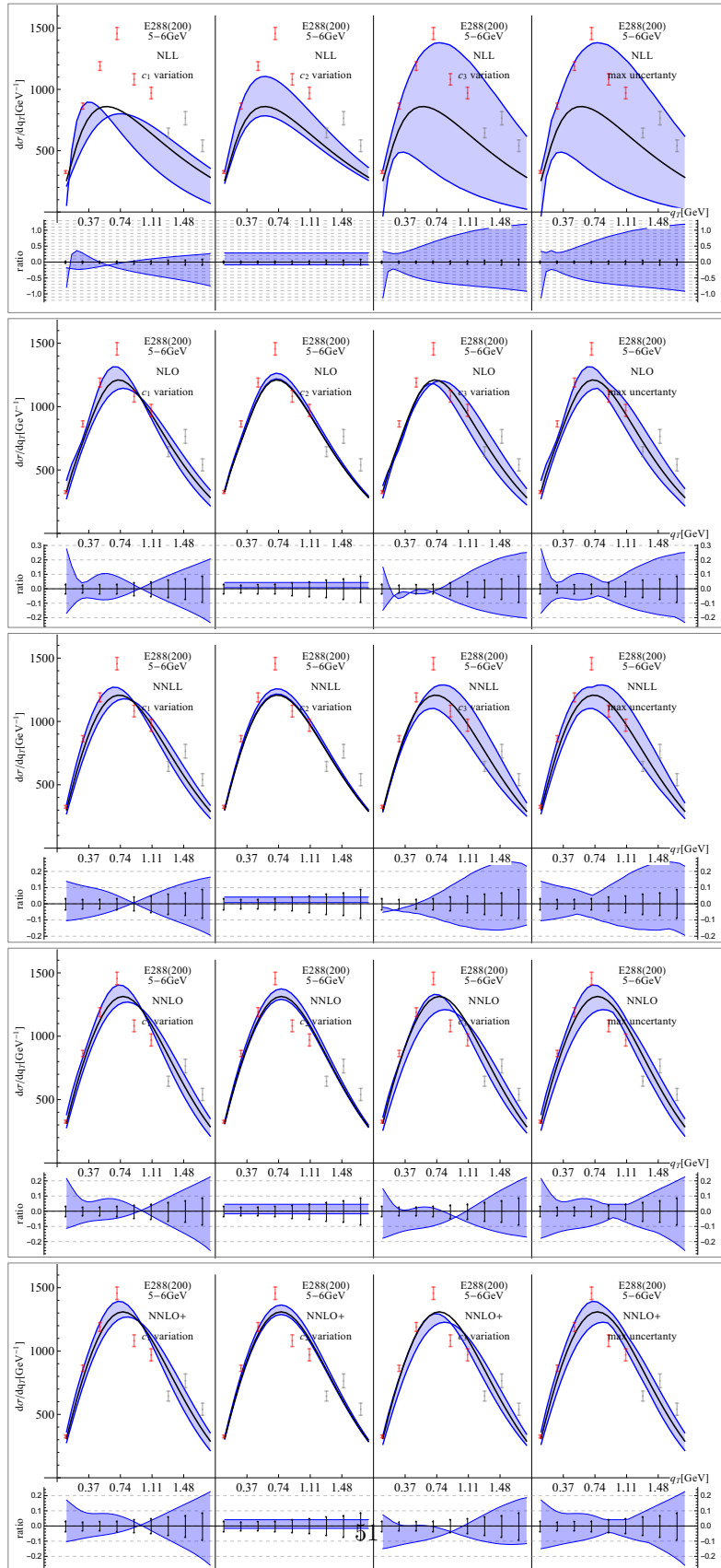


Figure 50: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

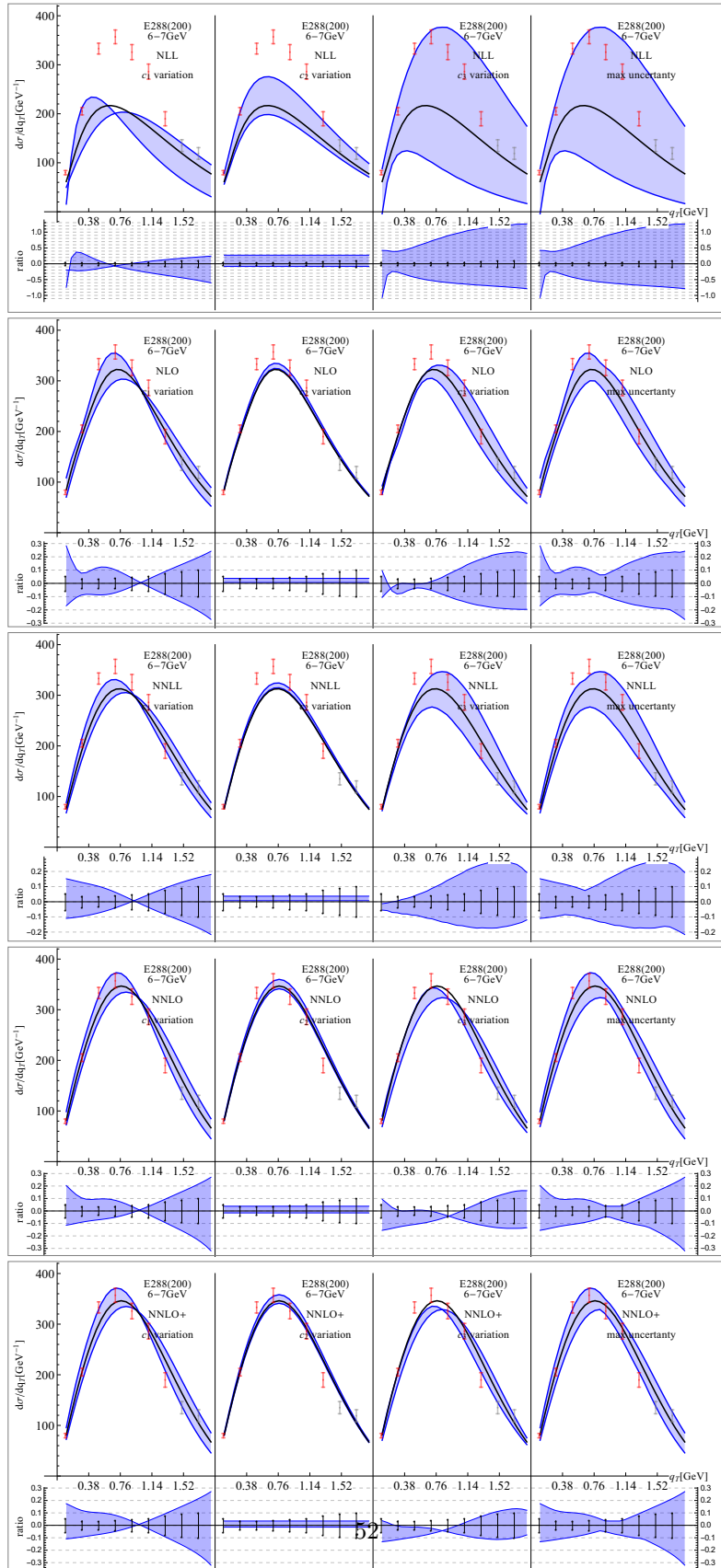


Figure 51: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

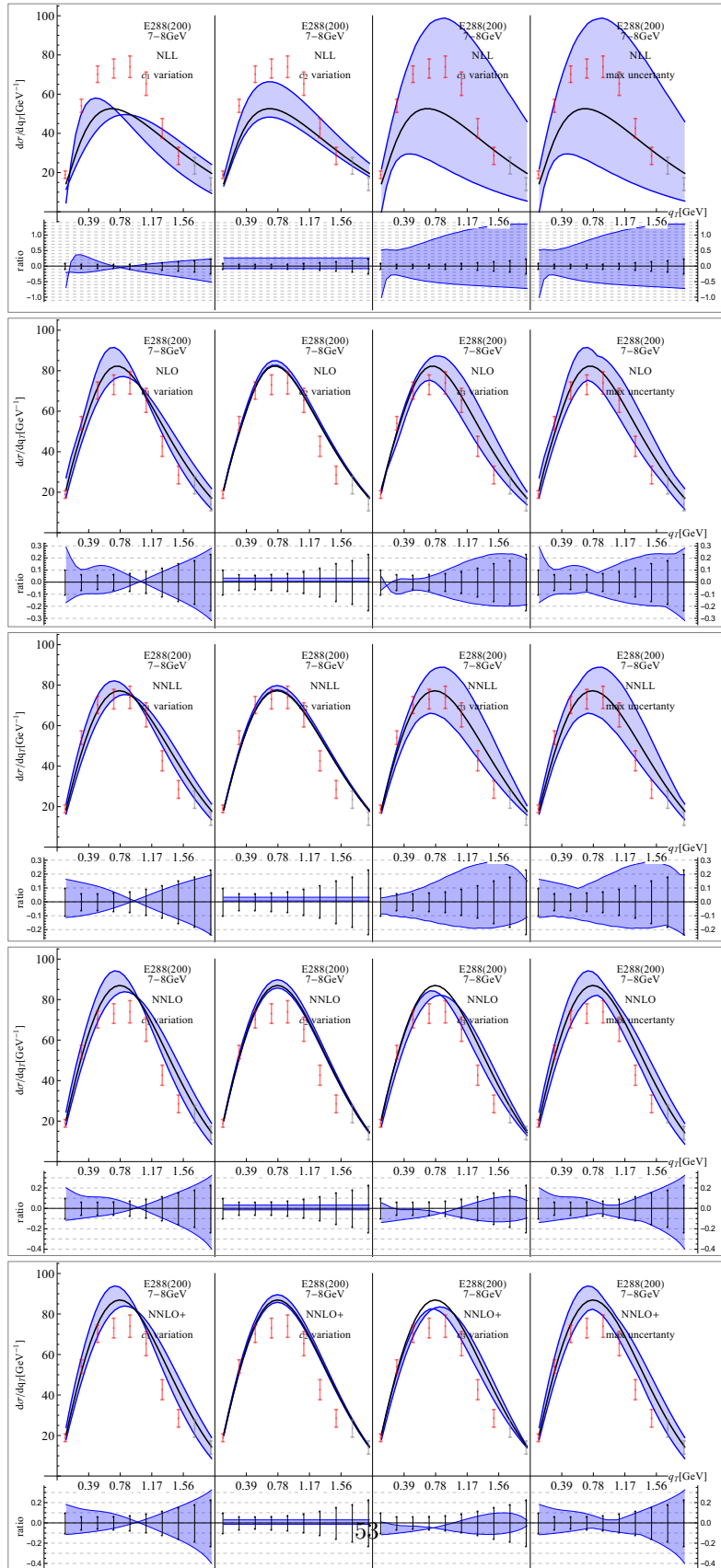


Figure 52: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

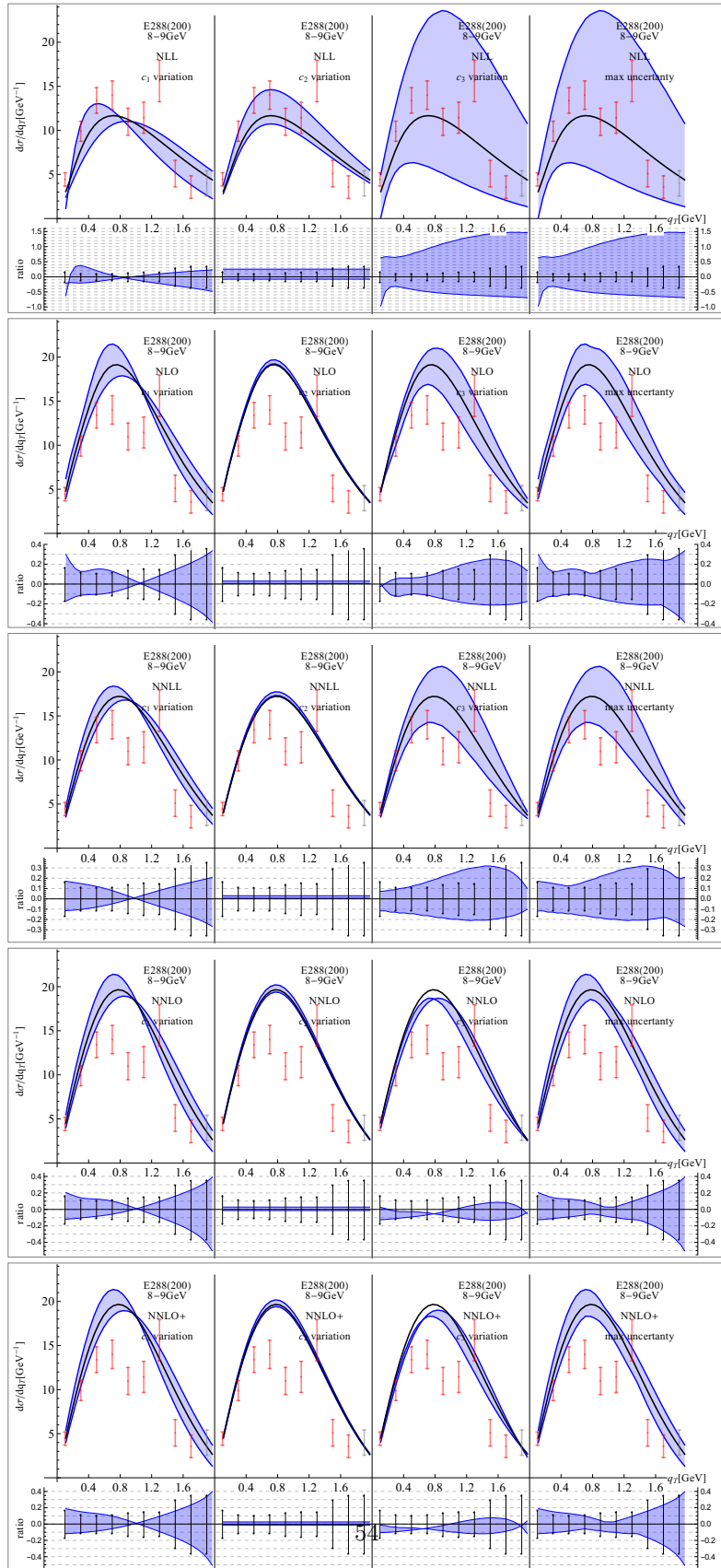


Figure 53: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

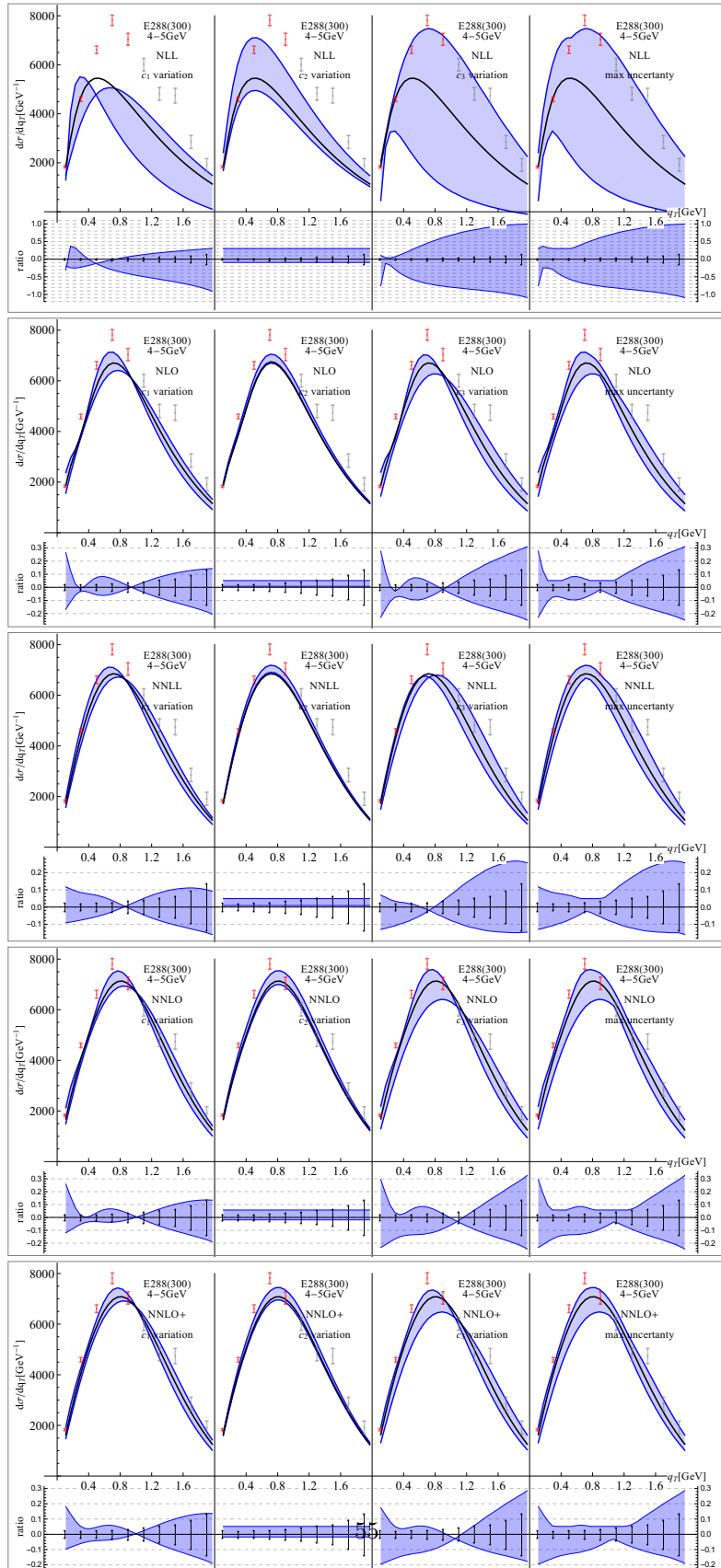


Figure 54: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

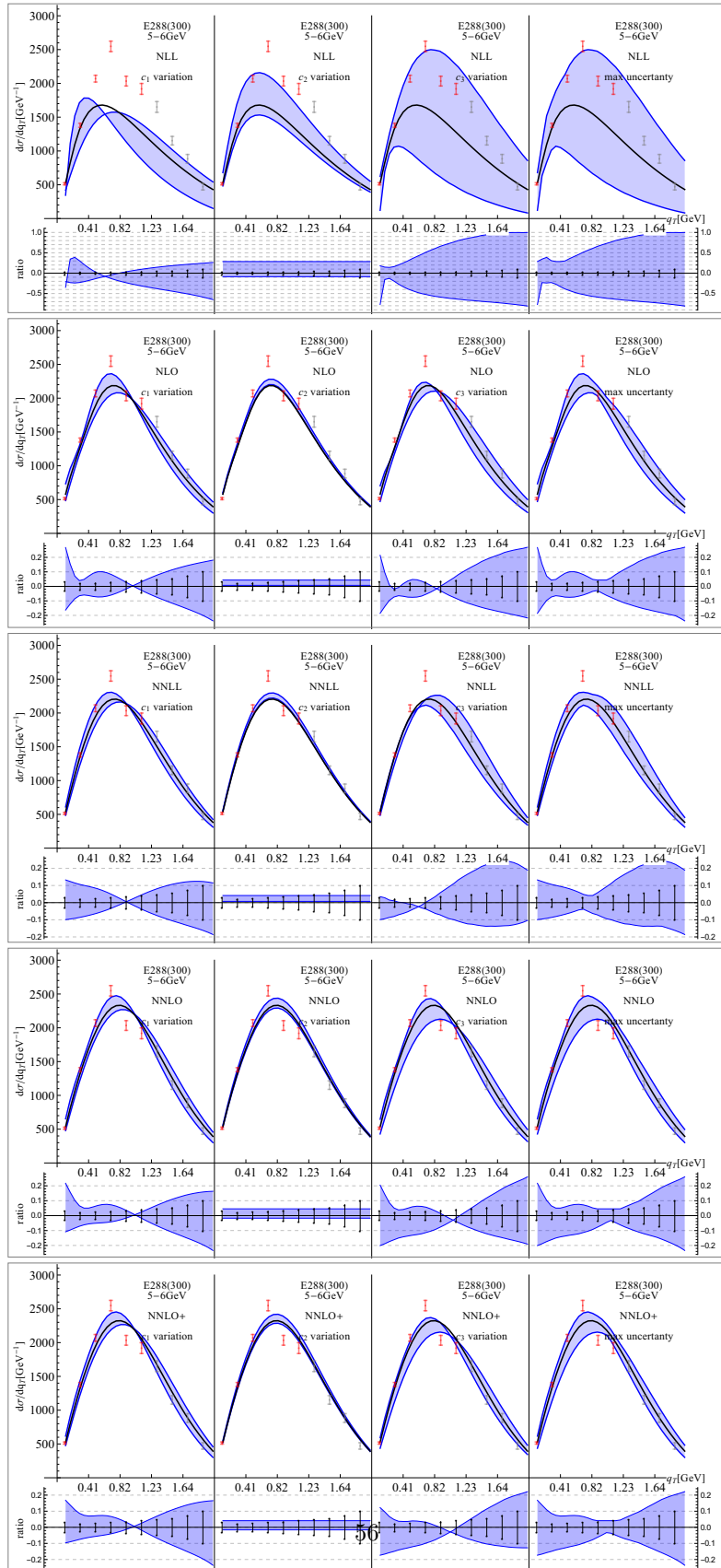


Figure 55: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



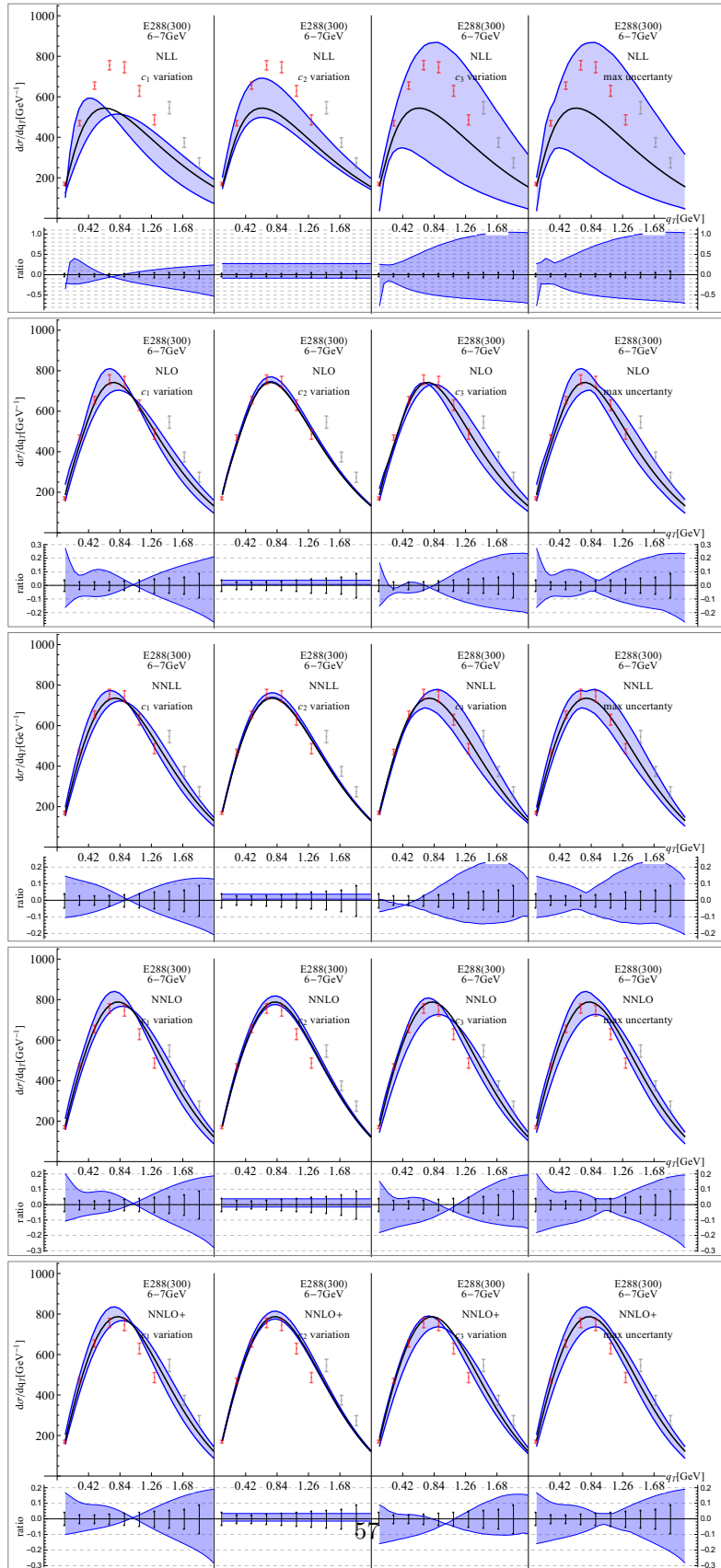


Figure 56: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

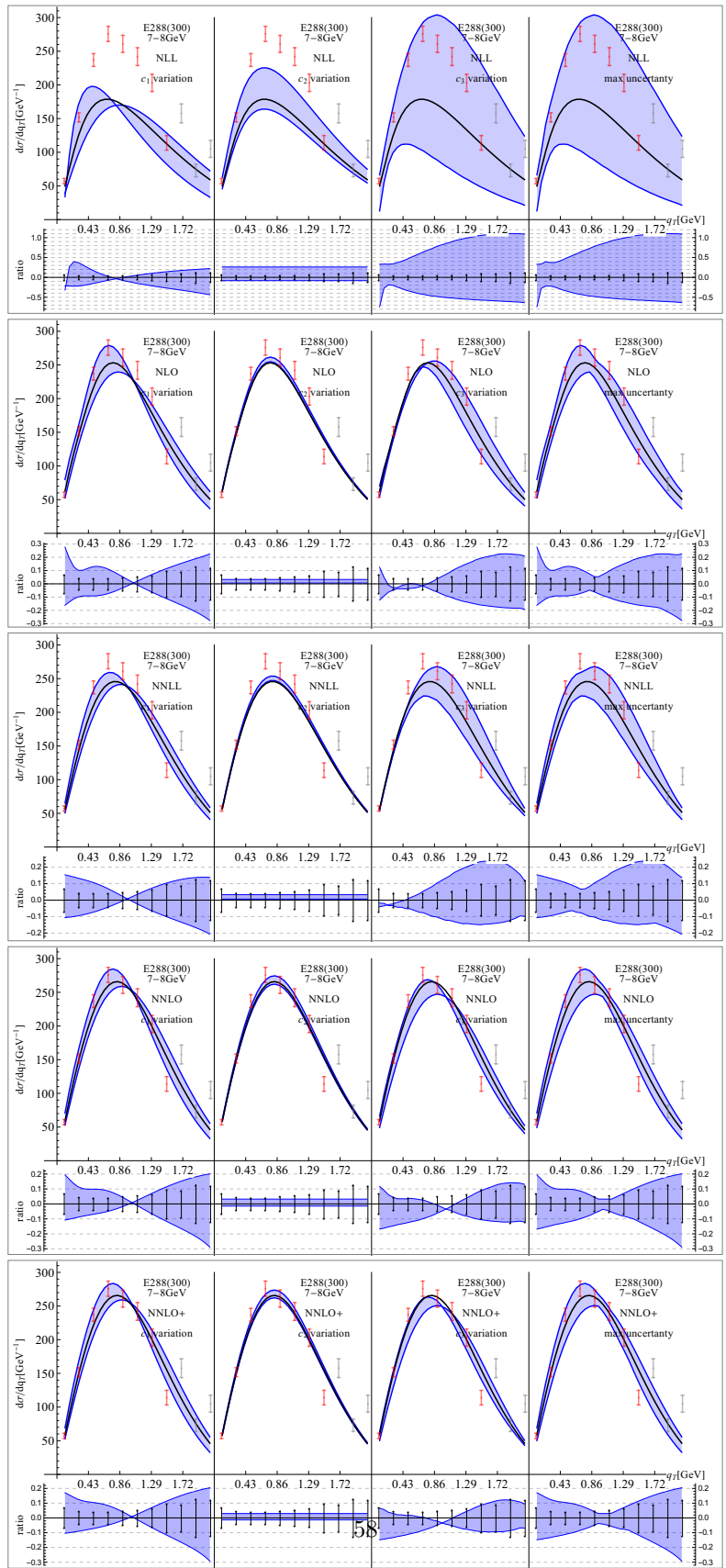


Figure 57: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

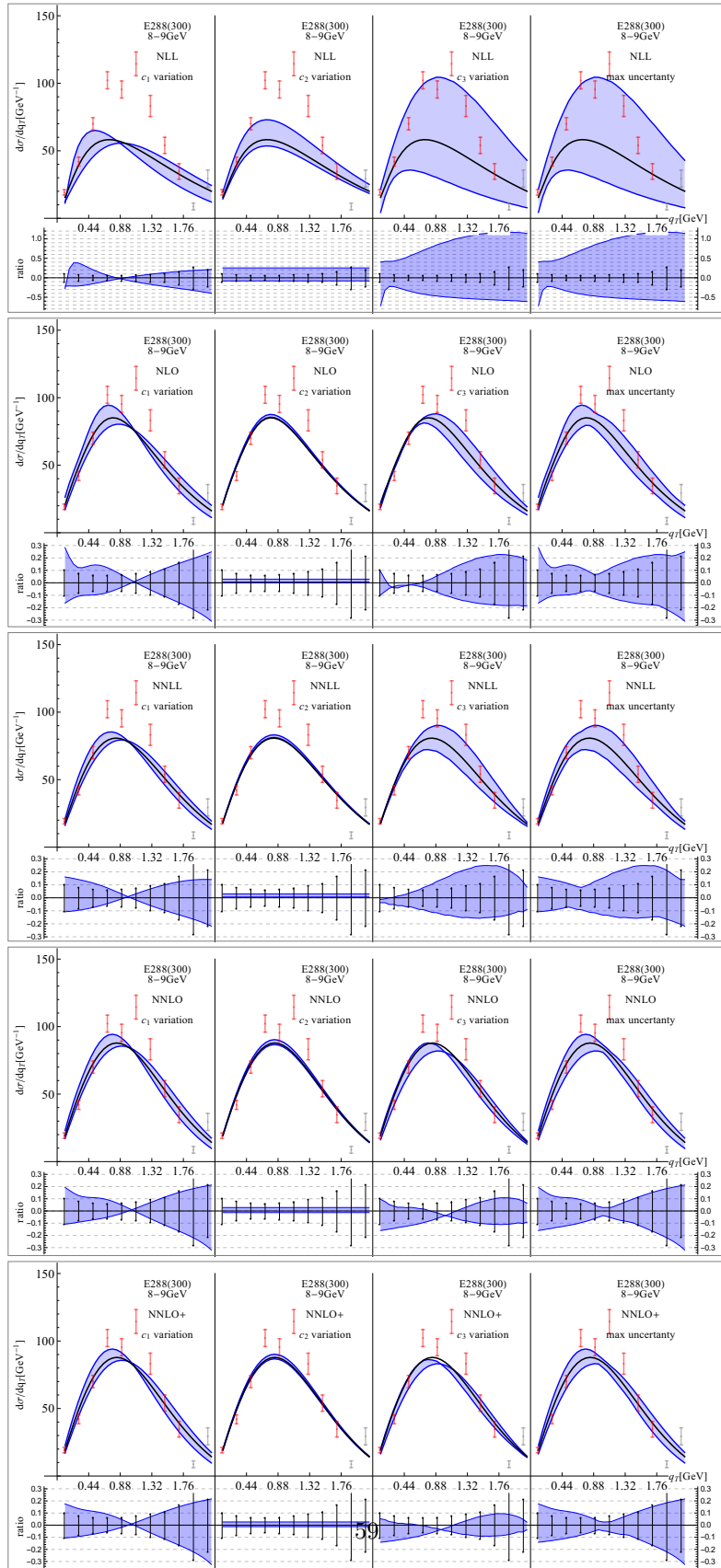


Figure 58: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

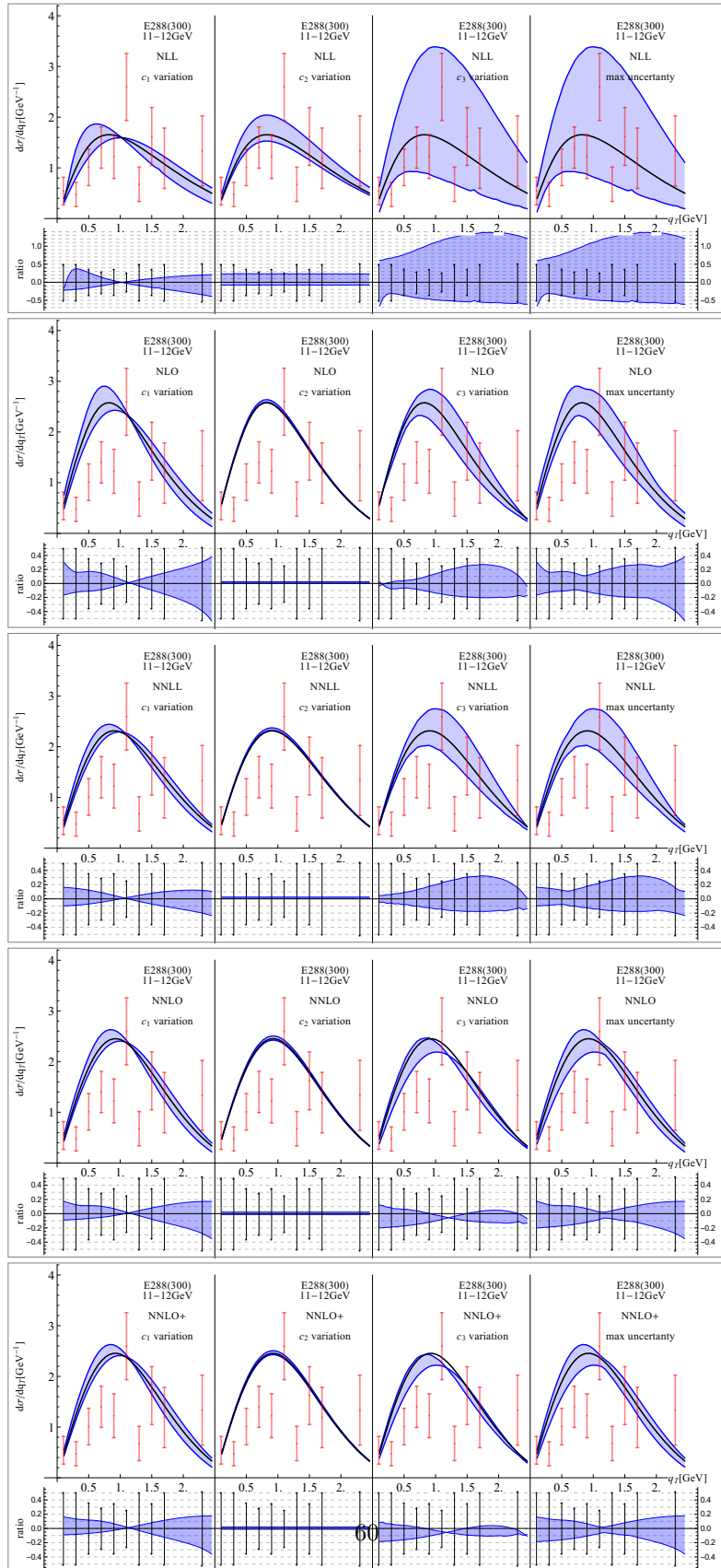


Figure 59: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

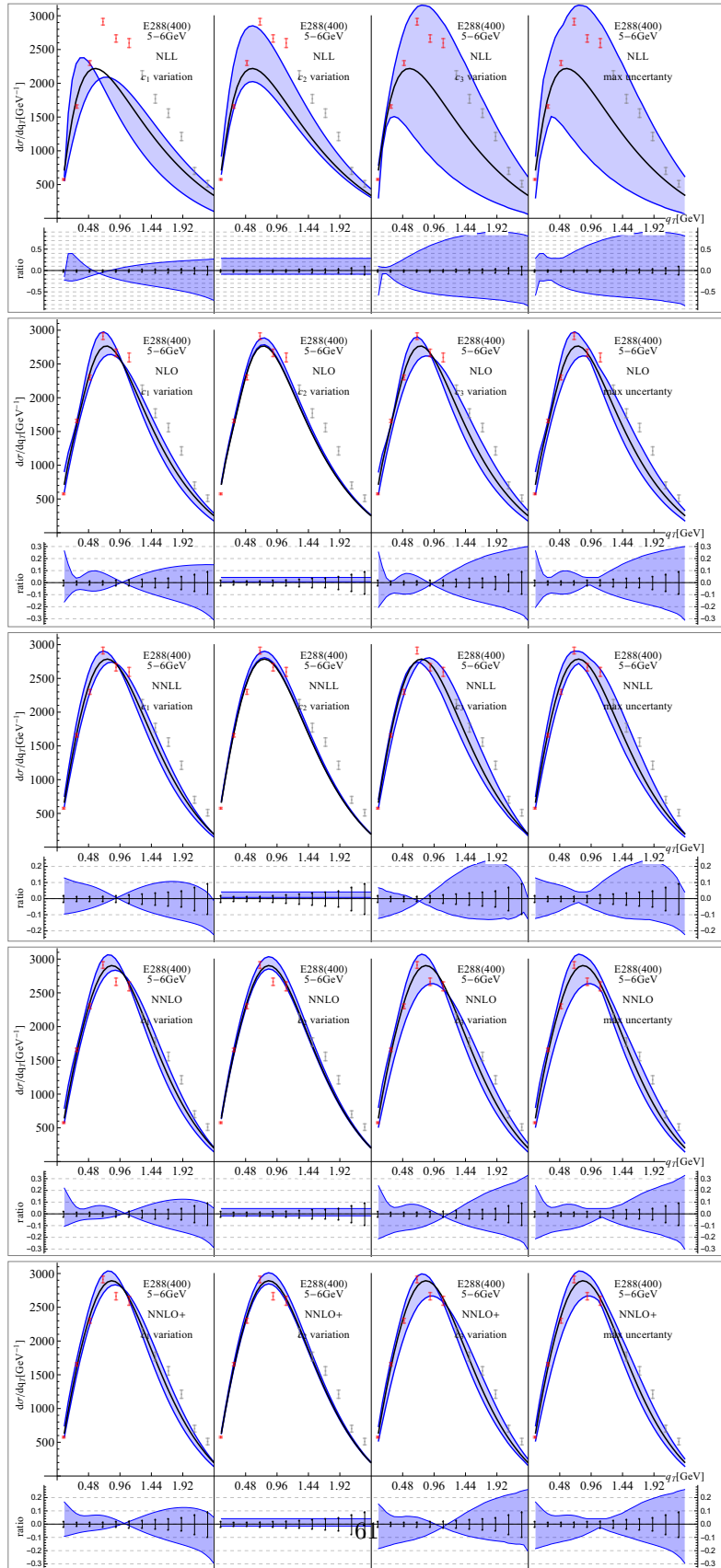


Figure 60: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

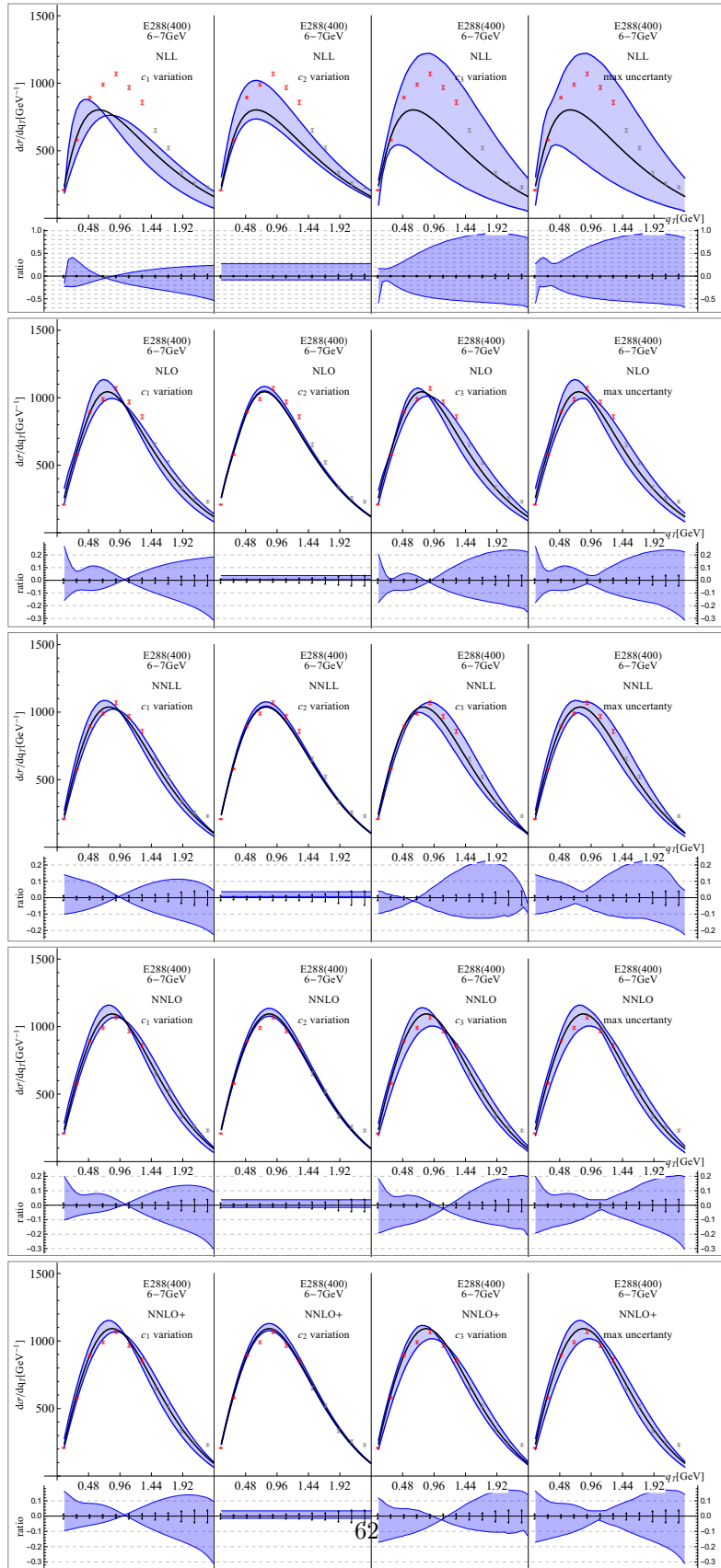


Figure 61: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

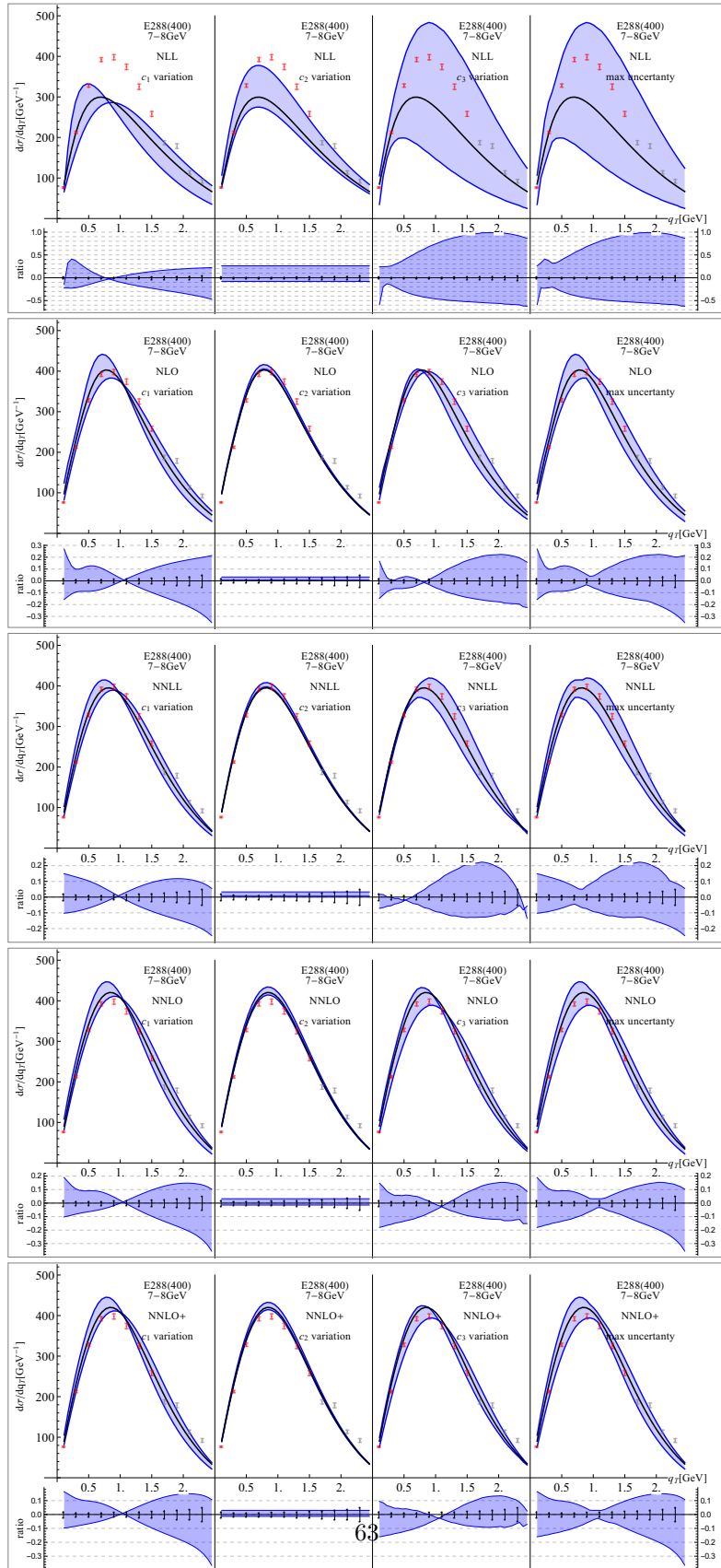


Figure 62: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

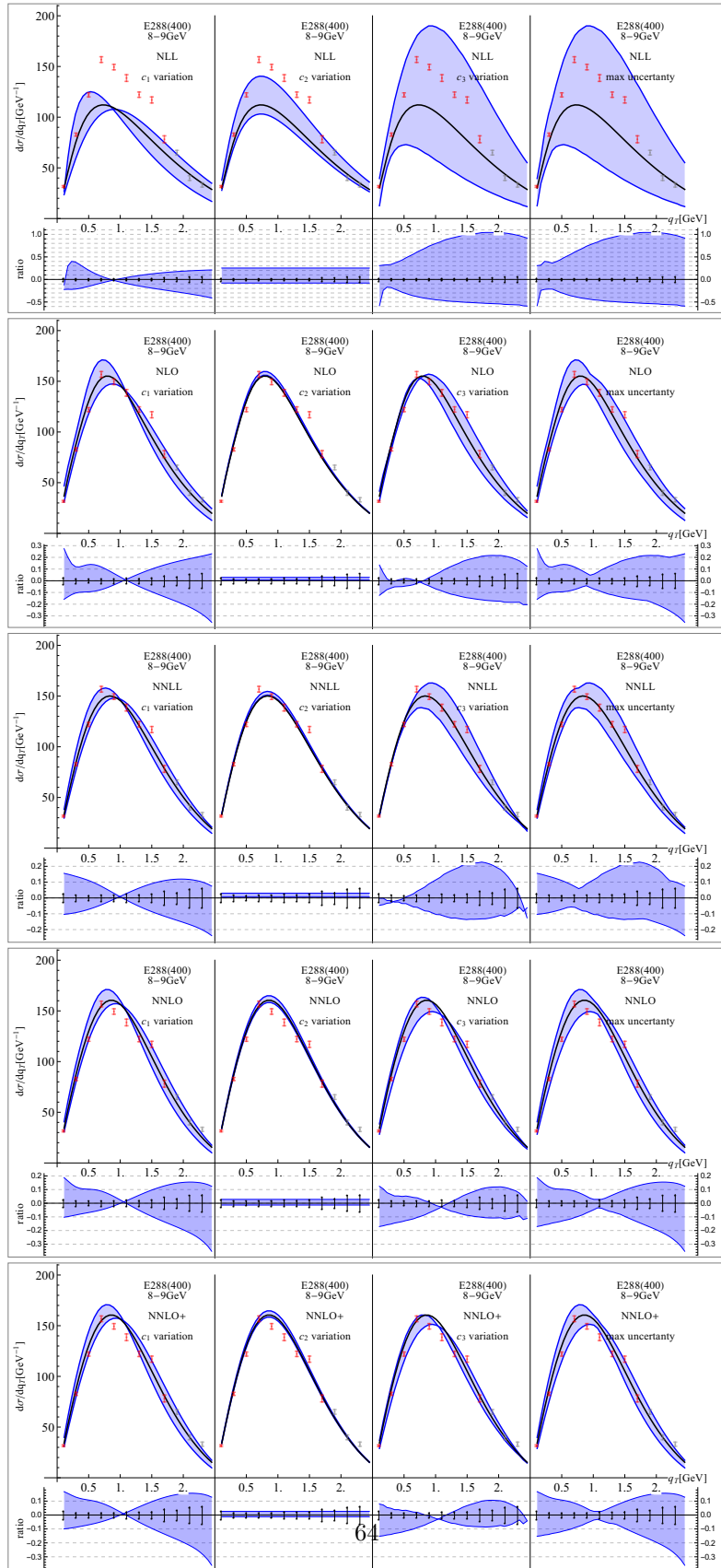


Figure 63: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



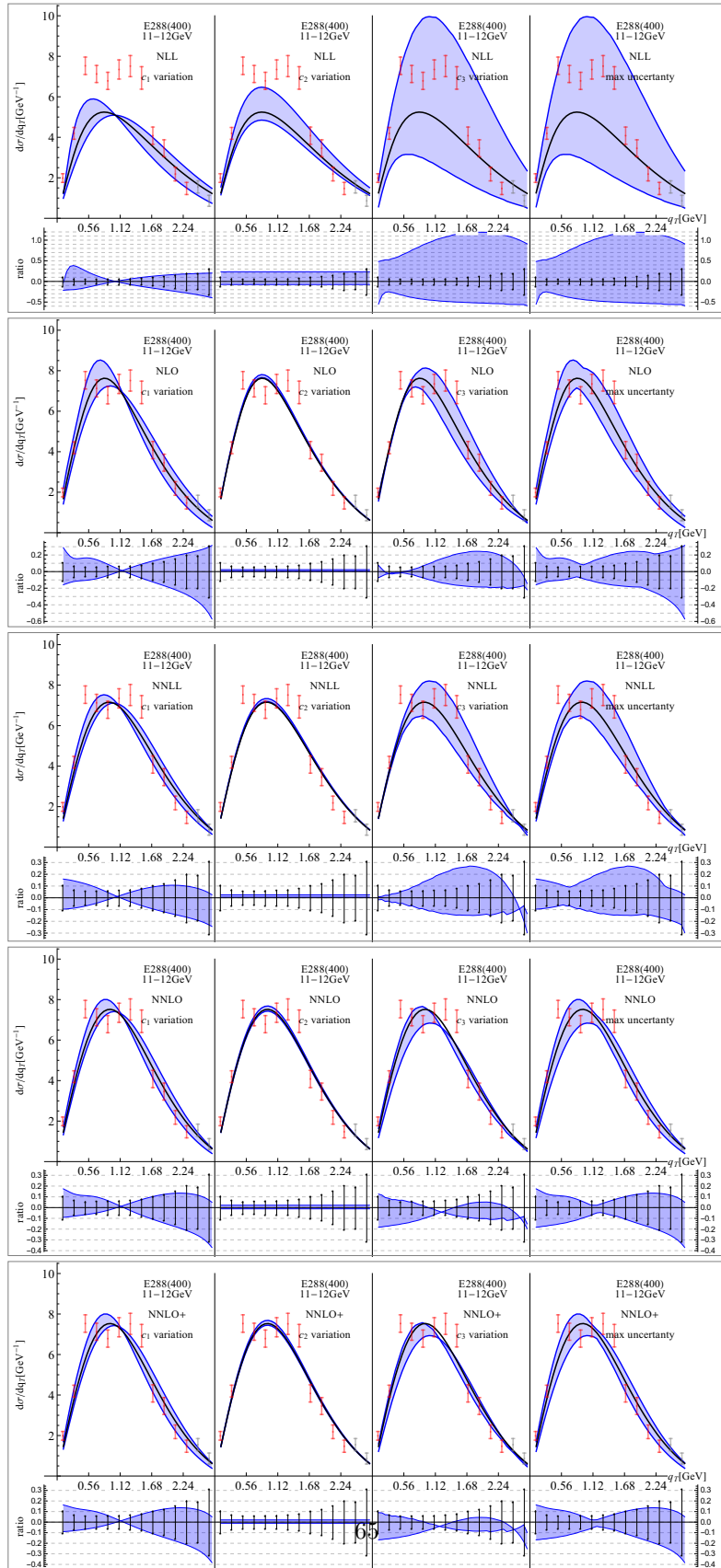


Figure 64: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

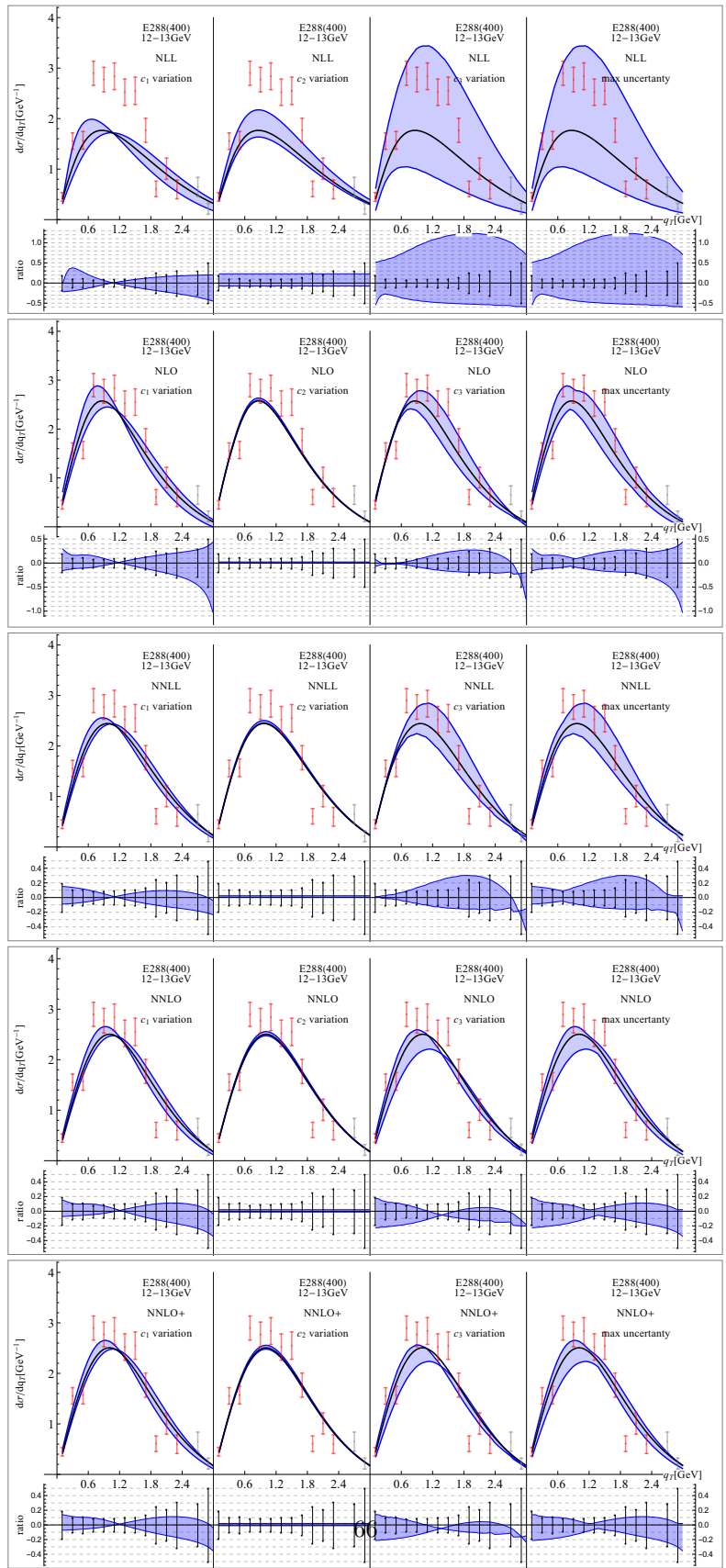


Figure 65: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

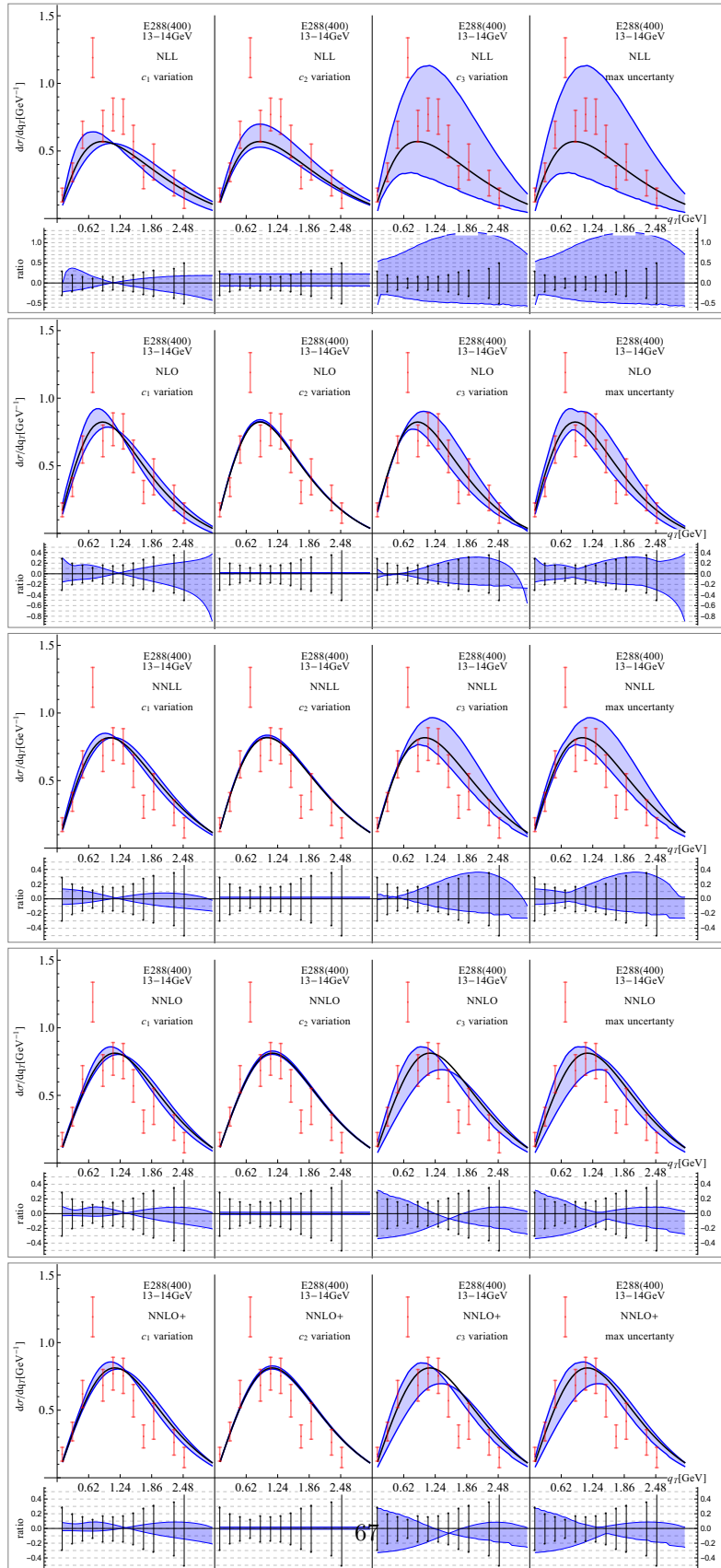


Figure 66: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

#### 4 Uncertainties for $\exp+gK$

Theoretical uncertainties  
order-by-order  
exponent  $+gK$

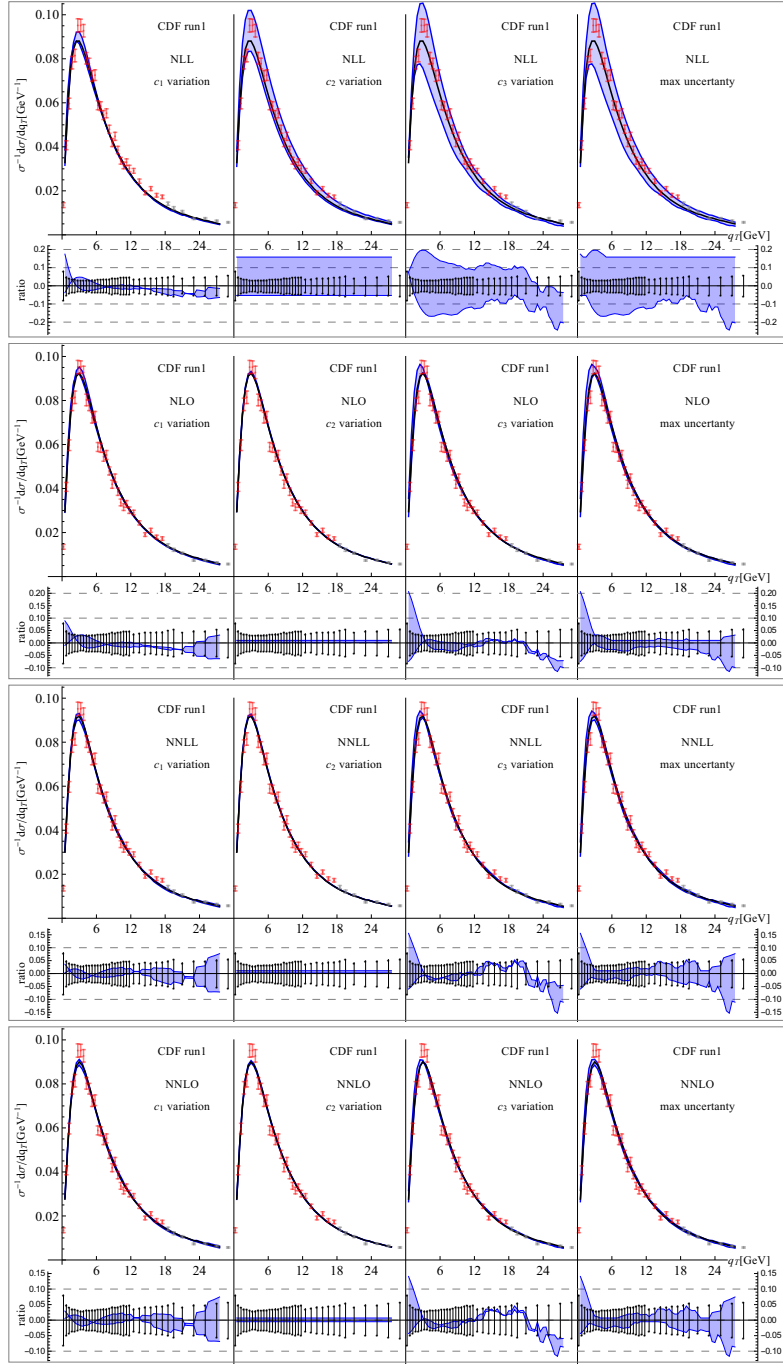


Figure 67: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

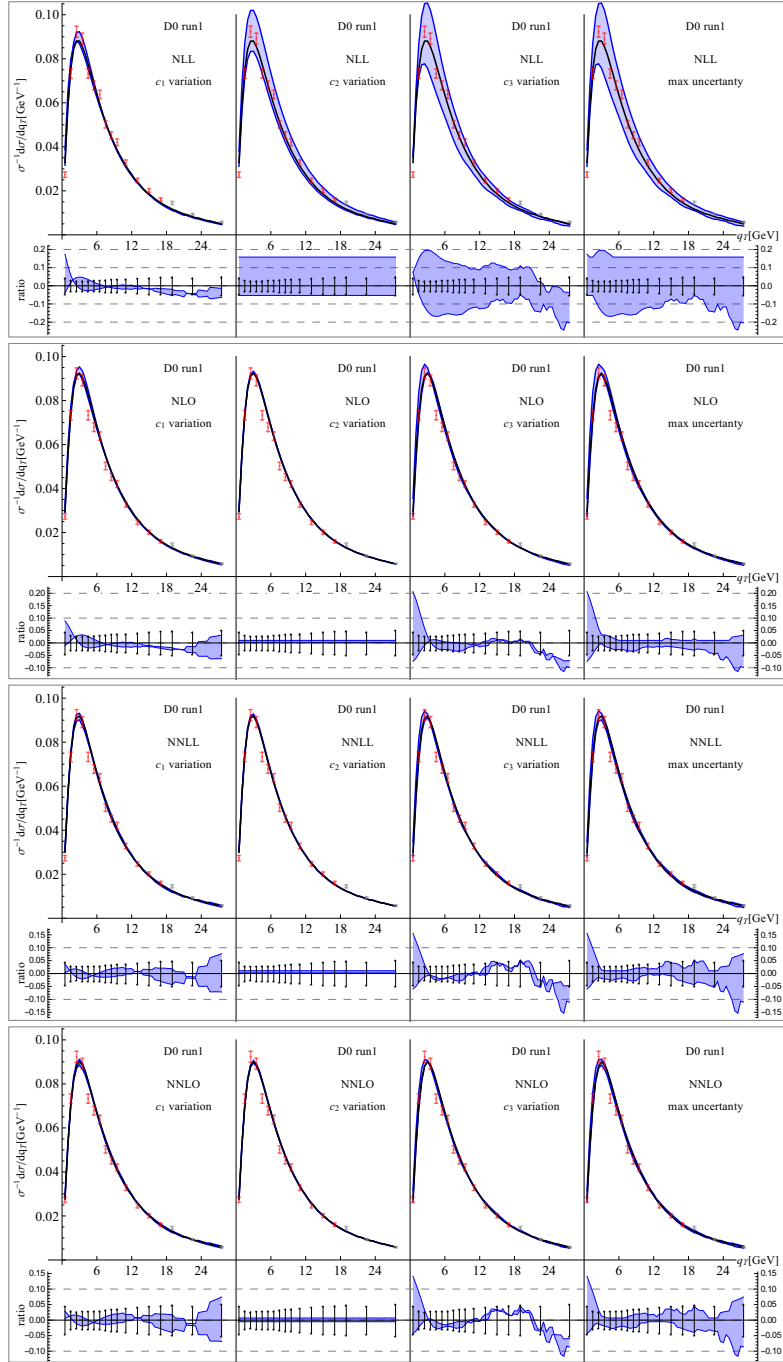


Figure 68: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

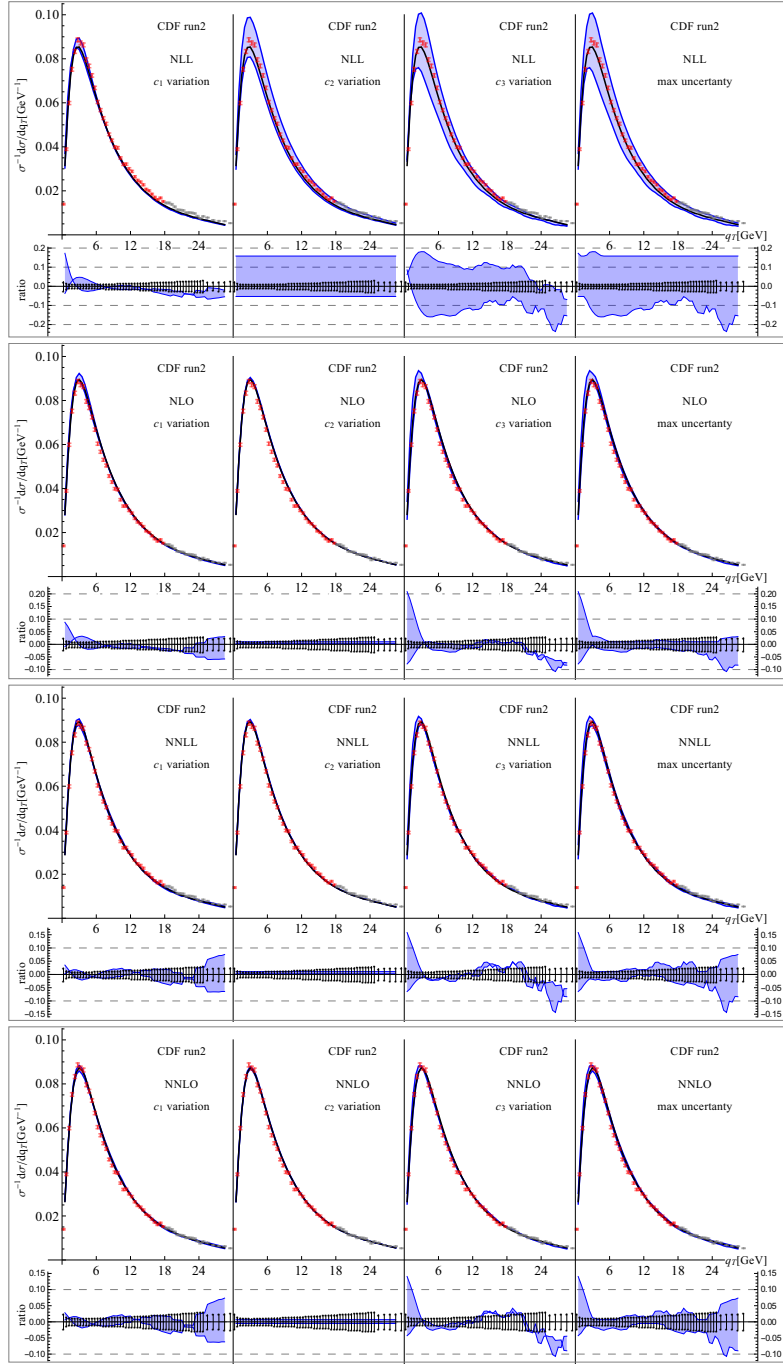


Figure 69: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

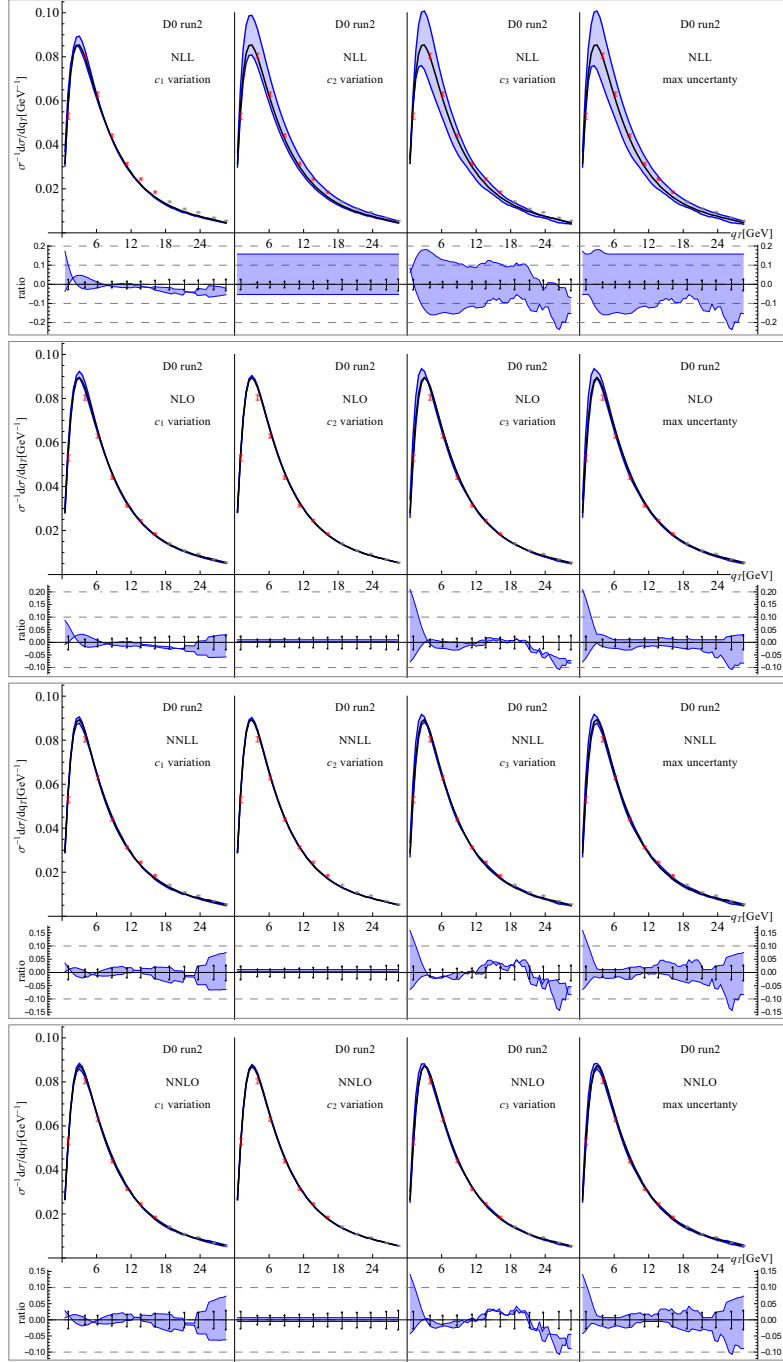


Figure 70: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



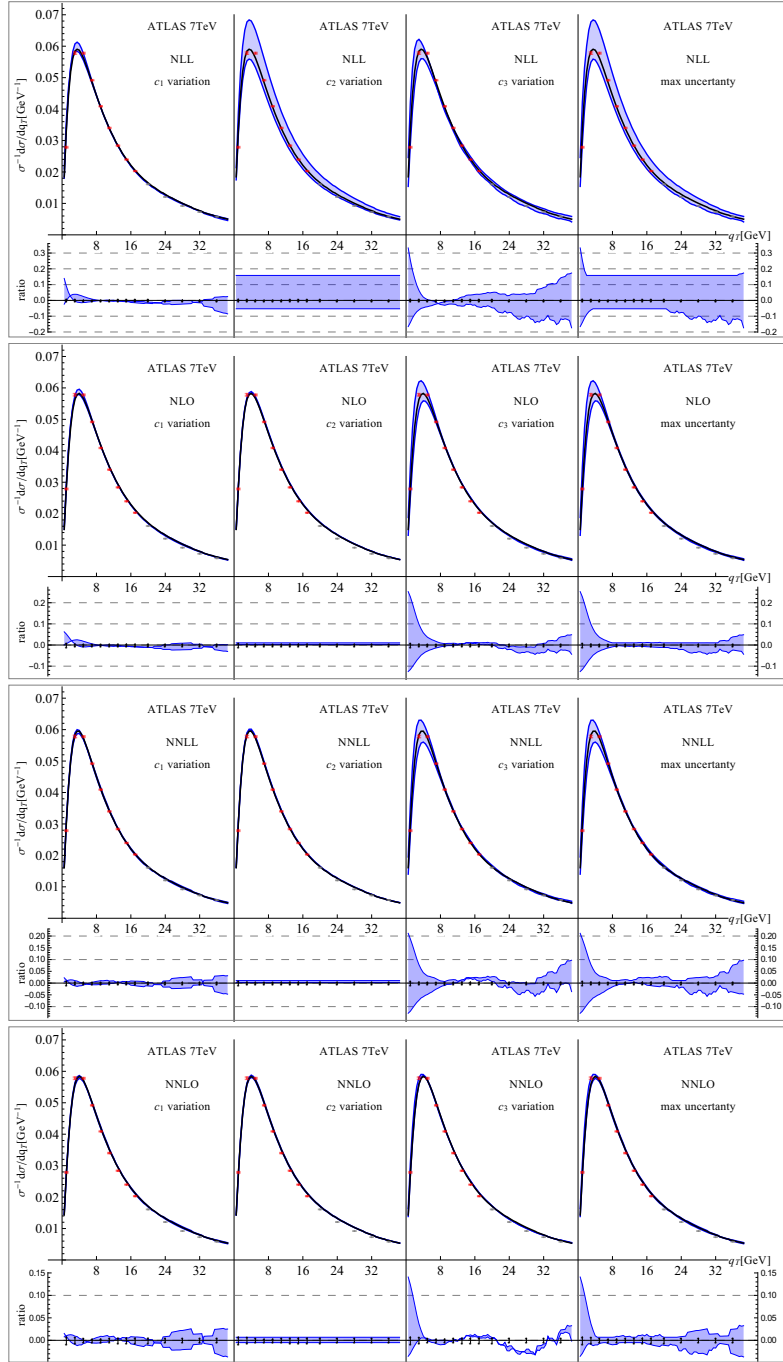


Figure 71: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

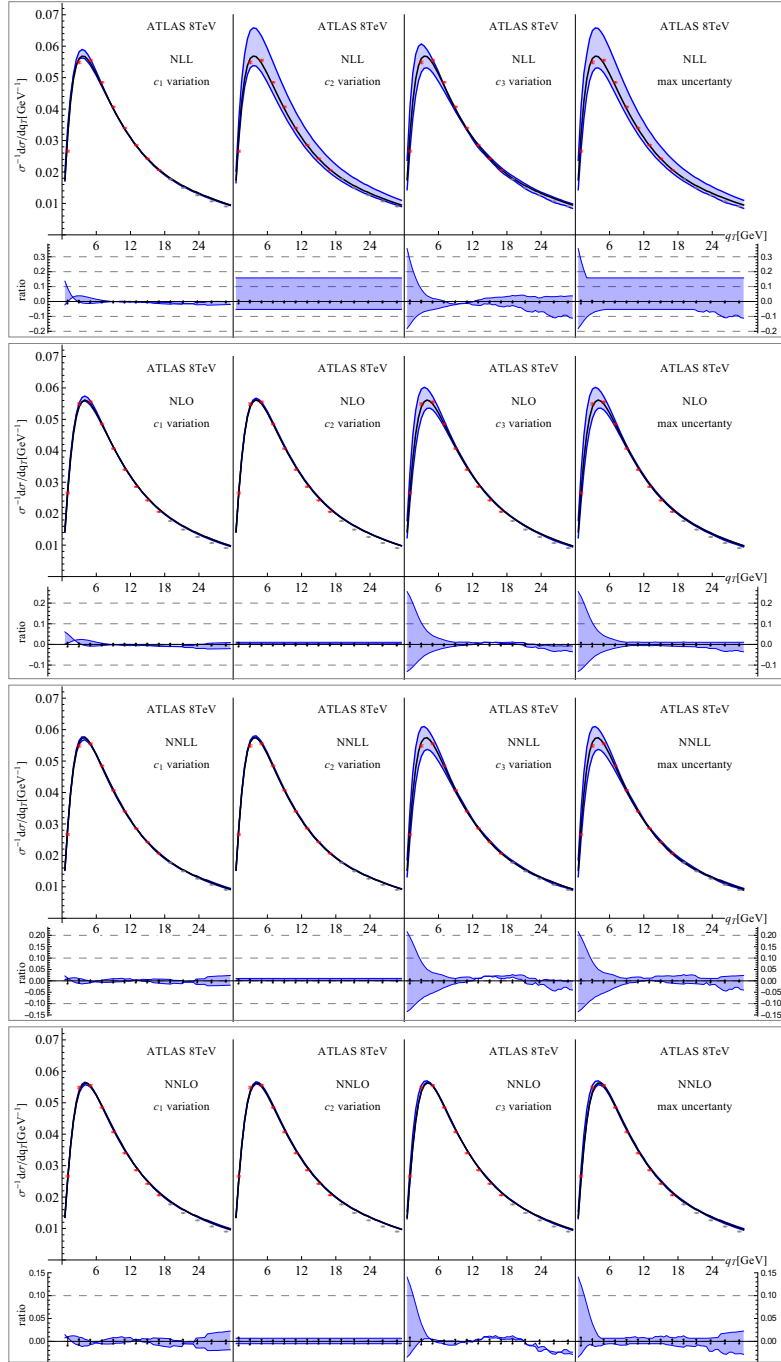


Figure 72: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

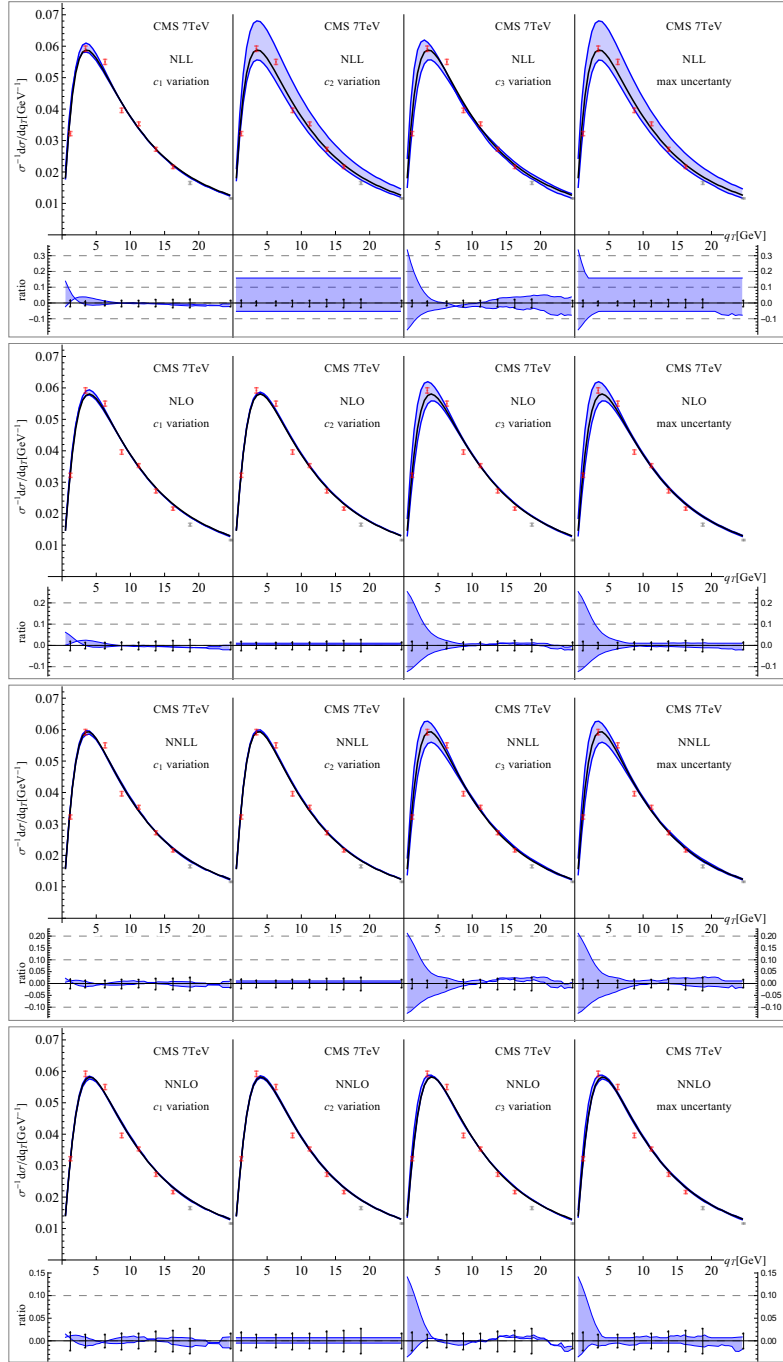


Figure 73: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

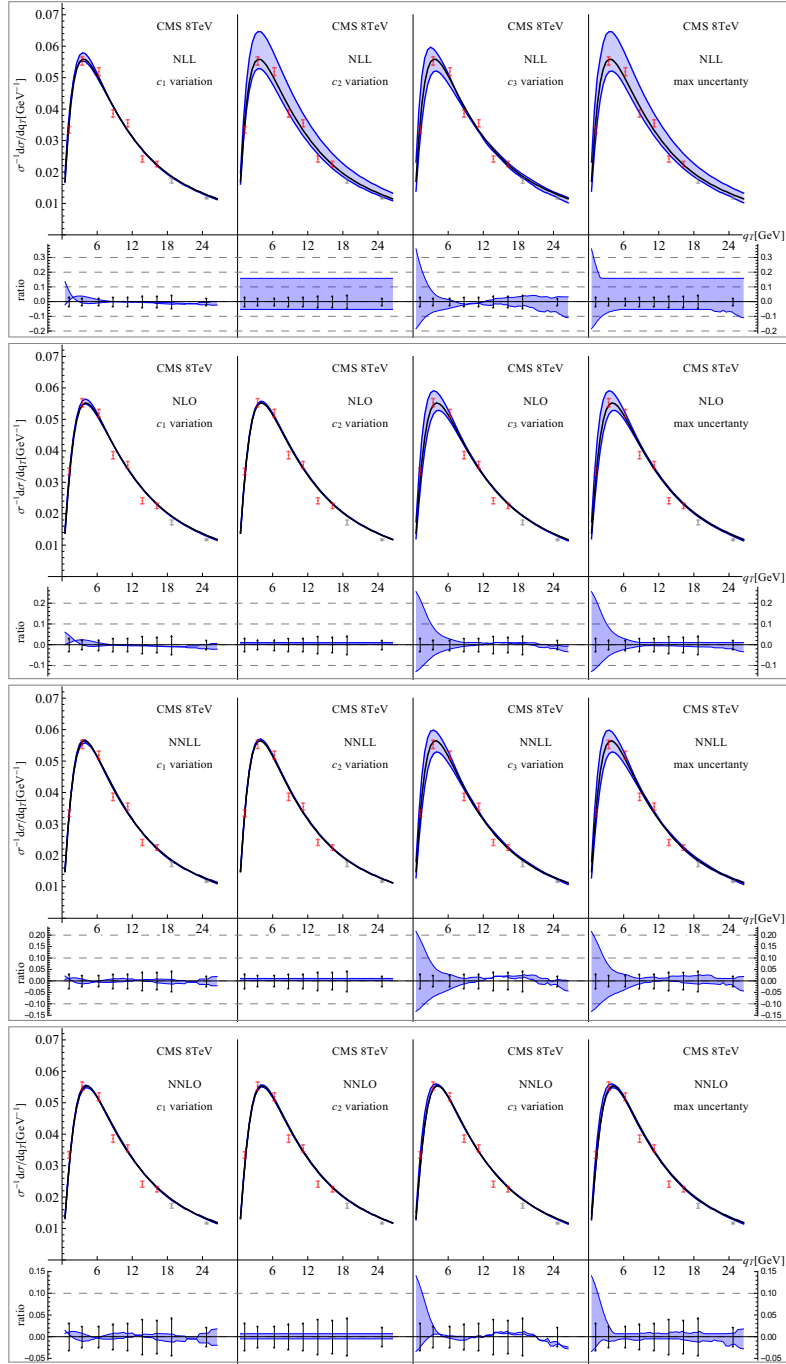


Figure 74: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

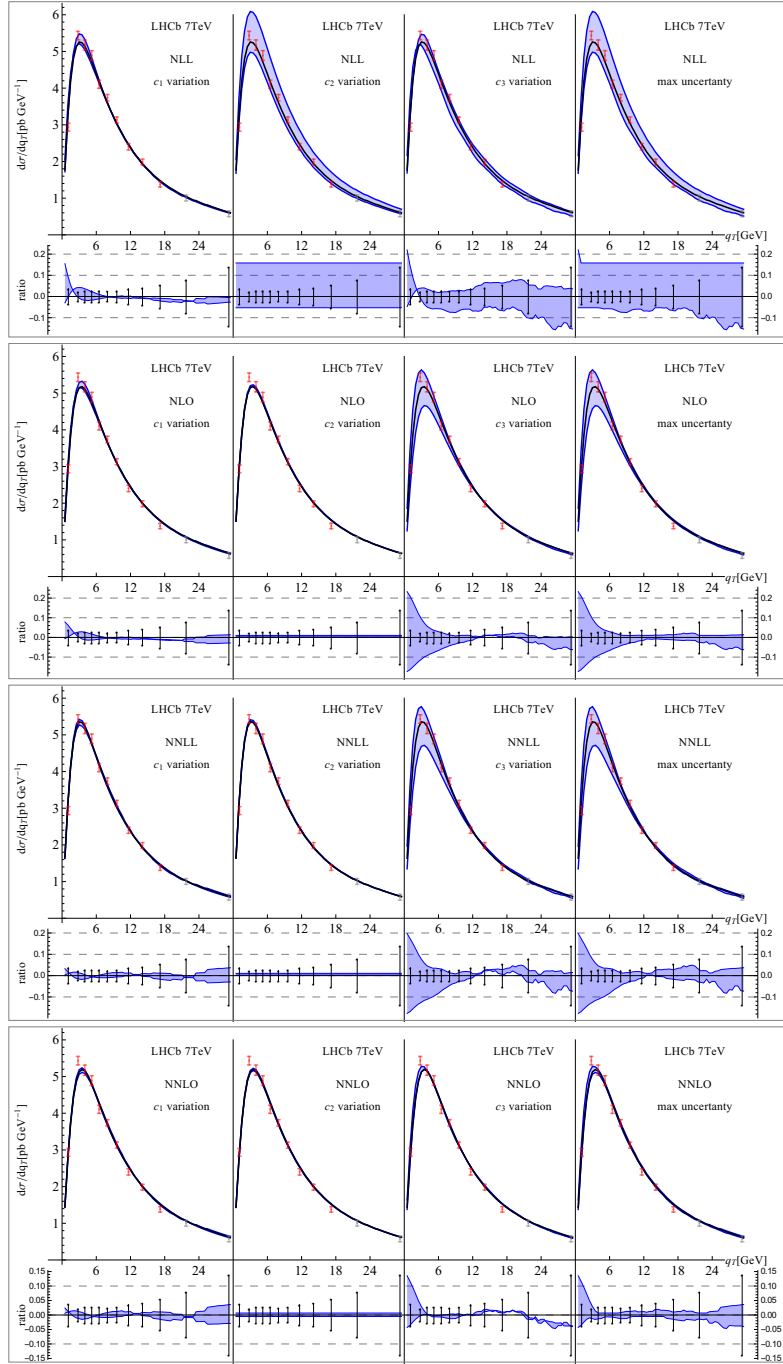


Figure 75: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

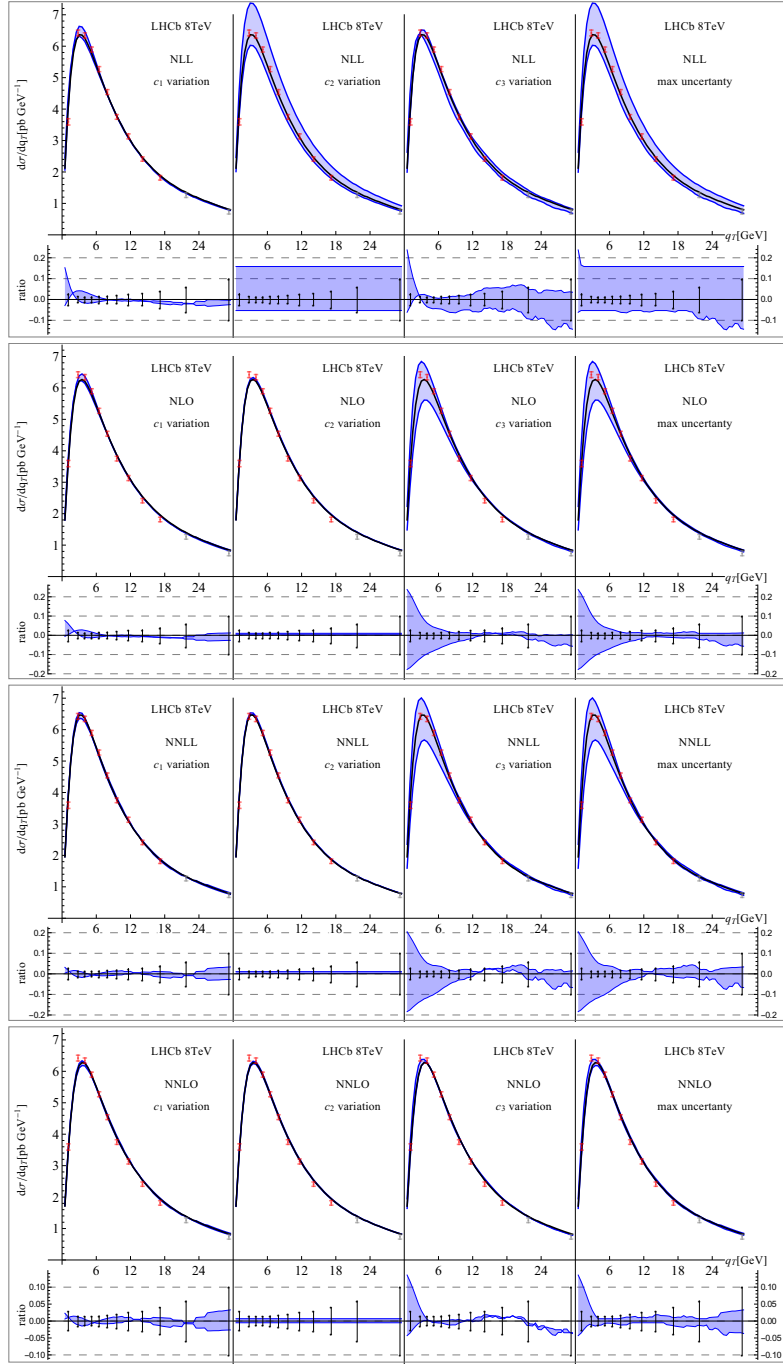


Figure 76: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

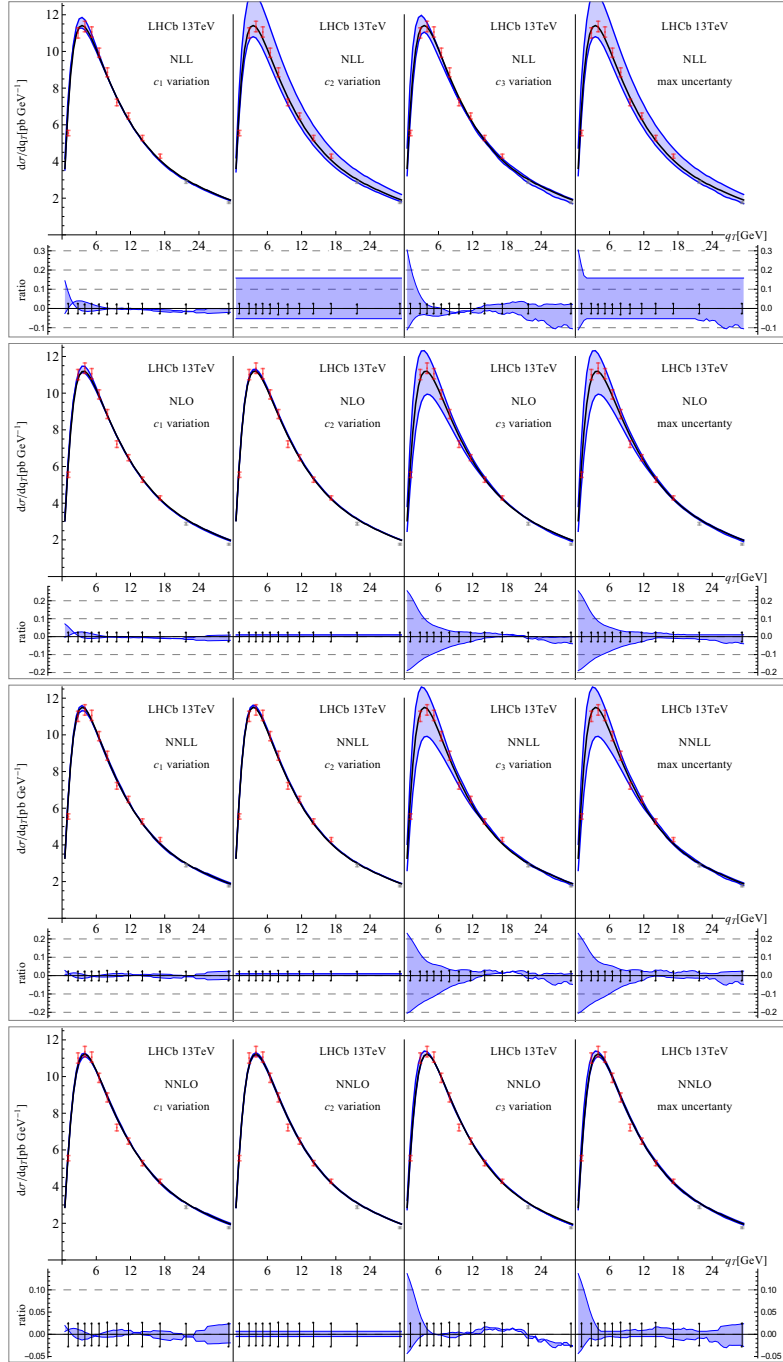


Figure 77: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

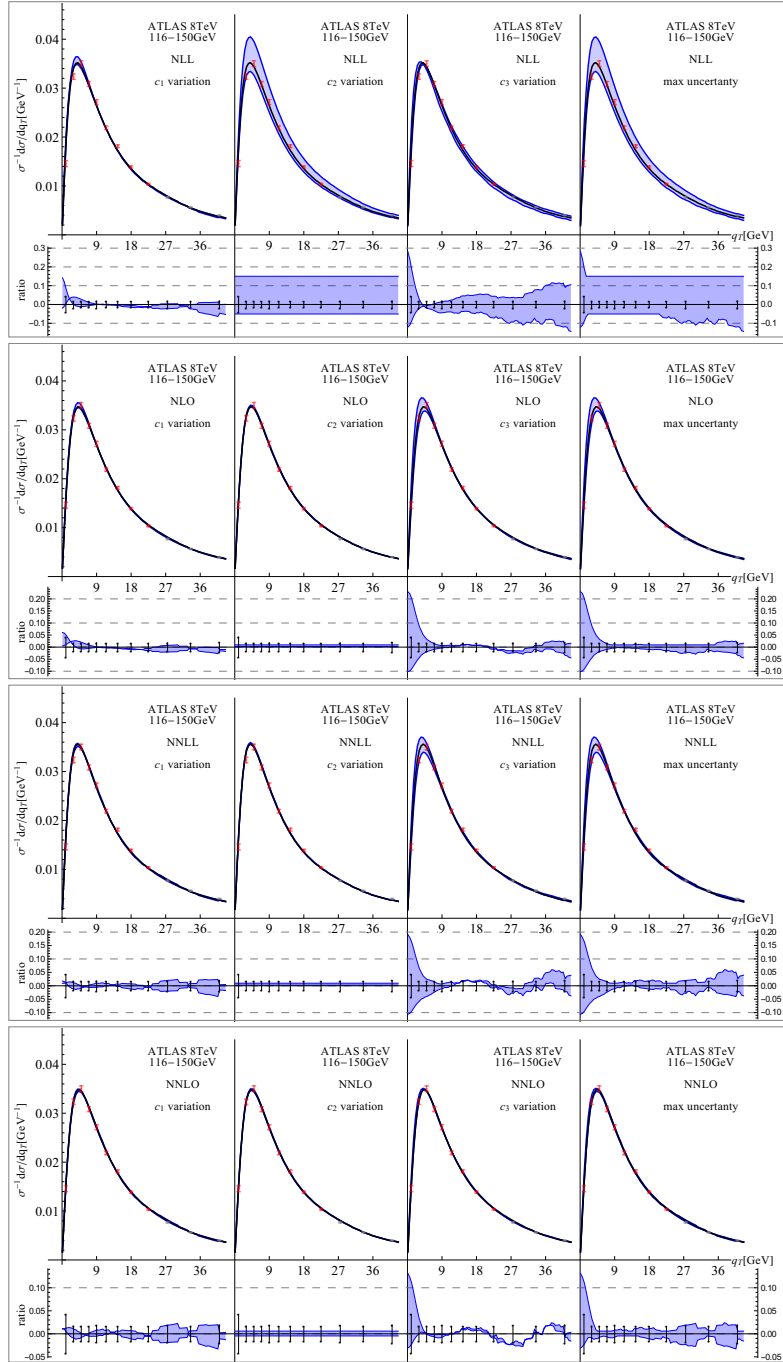


Figure 78: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$



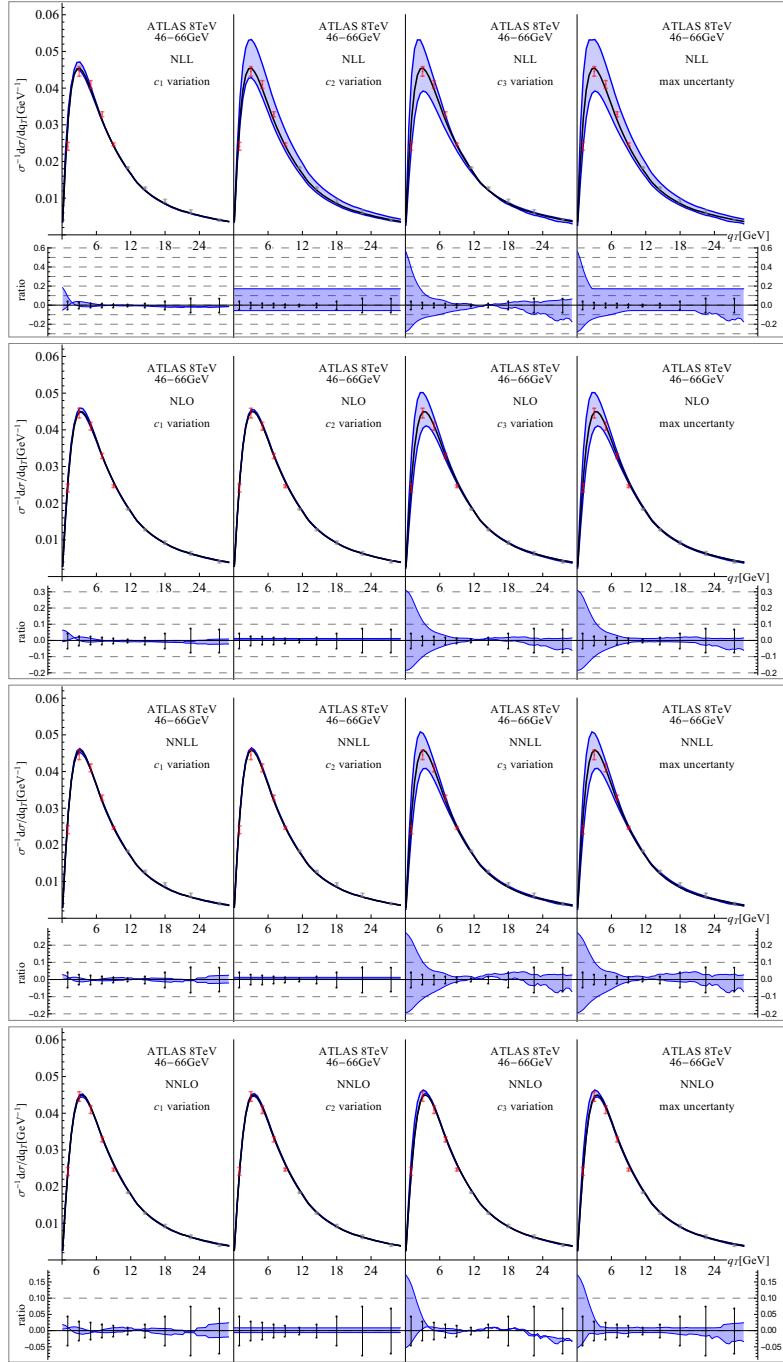


Figure 79: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $f_{NP} = \exp(-\lambda_1 b)$ ,  $\mu = \mu_b + 1$

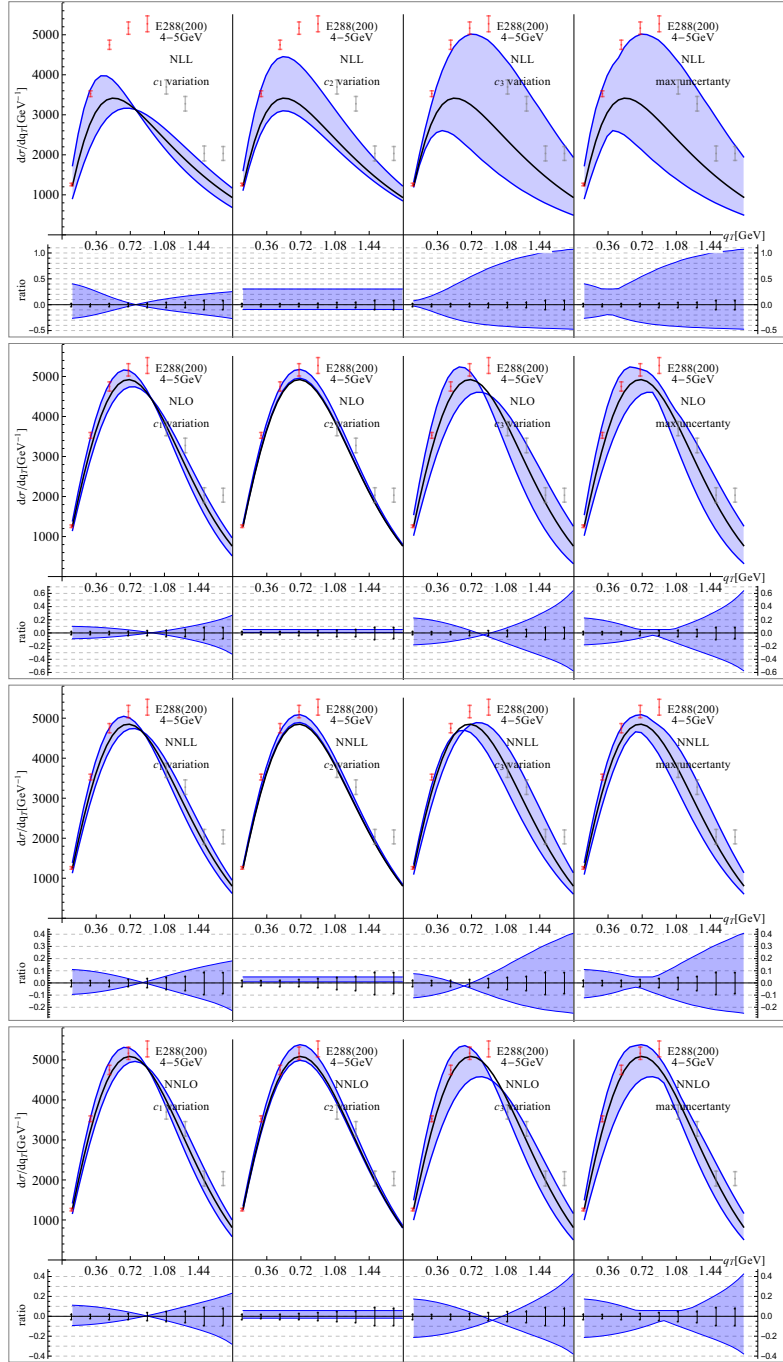


Figure 80: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

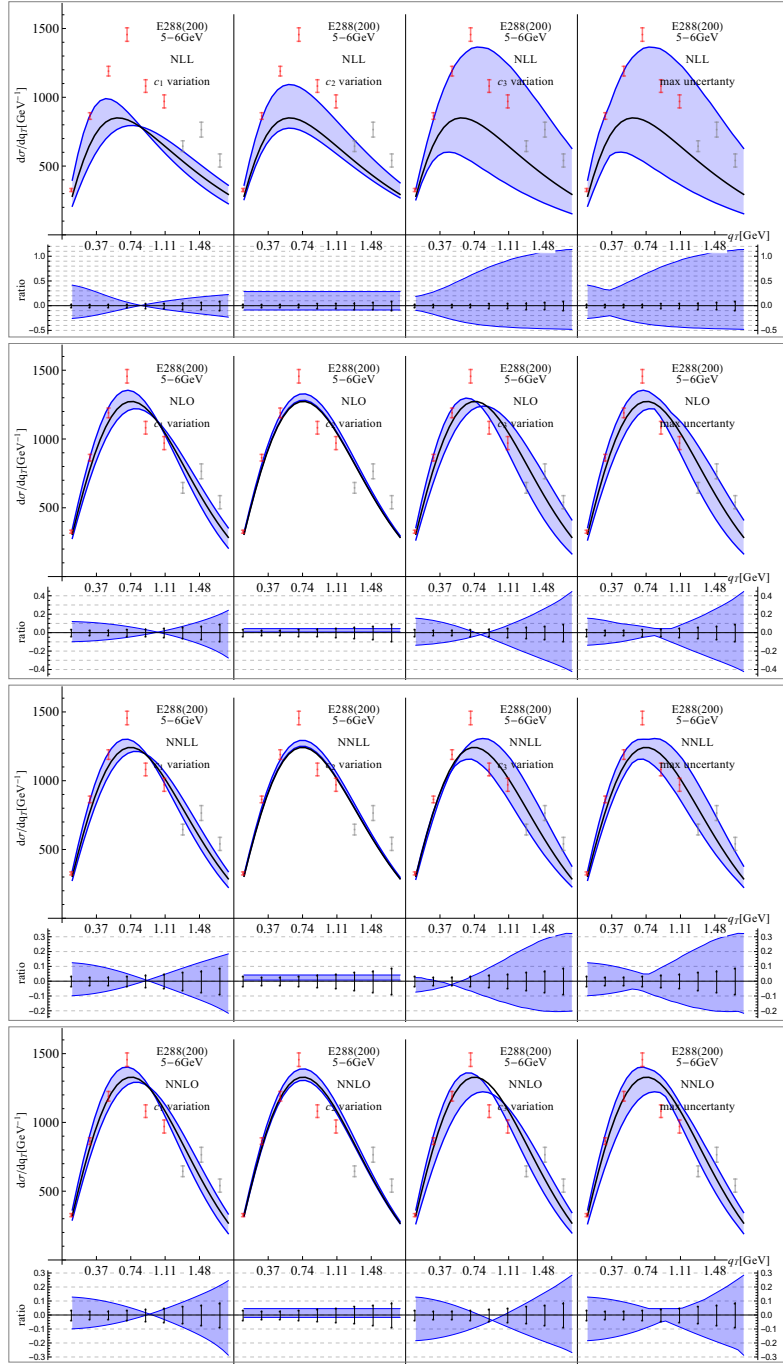


Figure 81: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

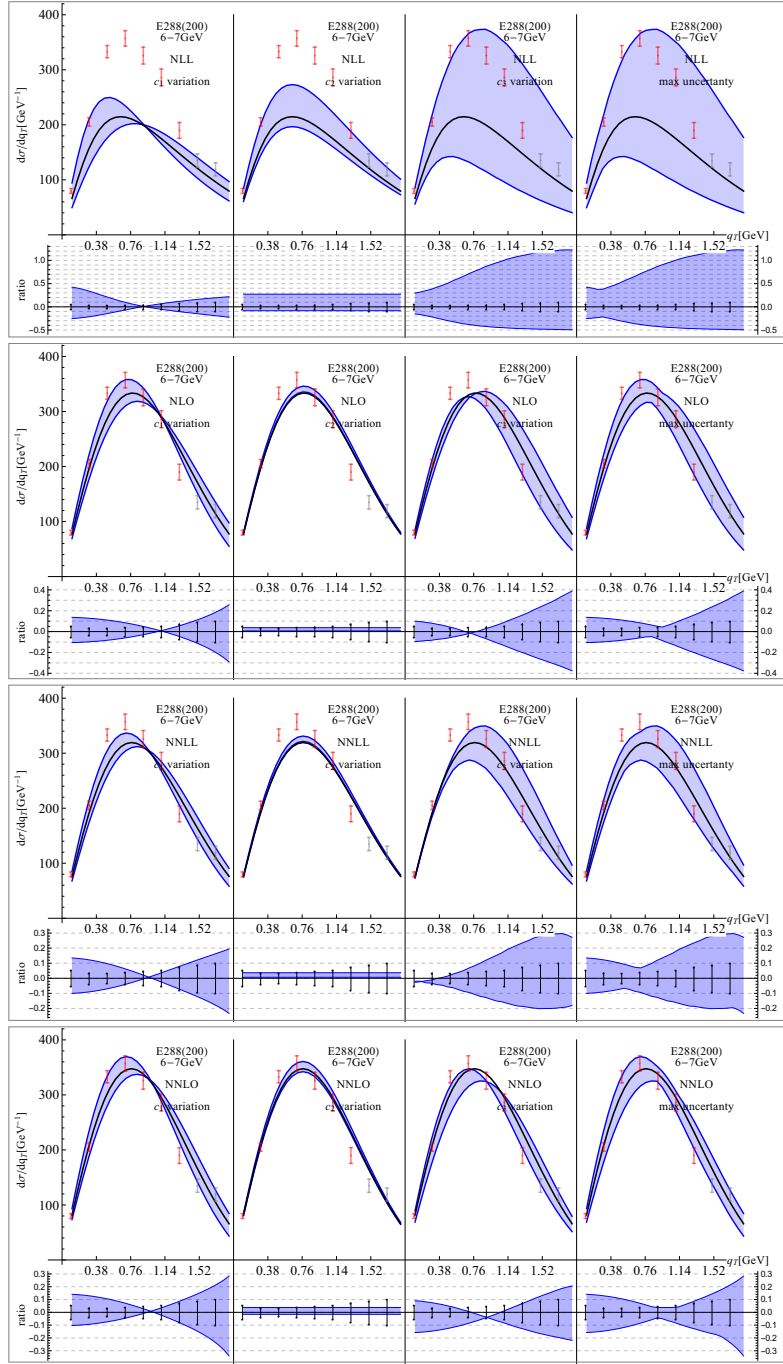


Figure 82: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

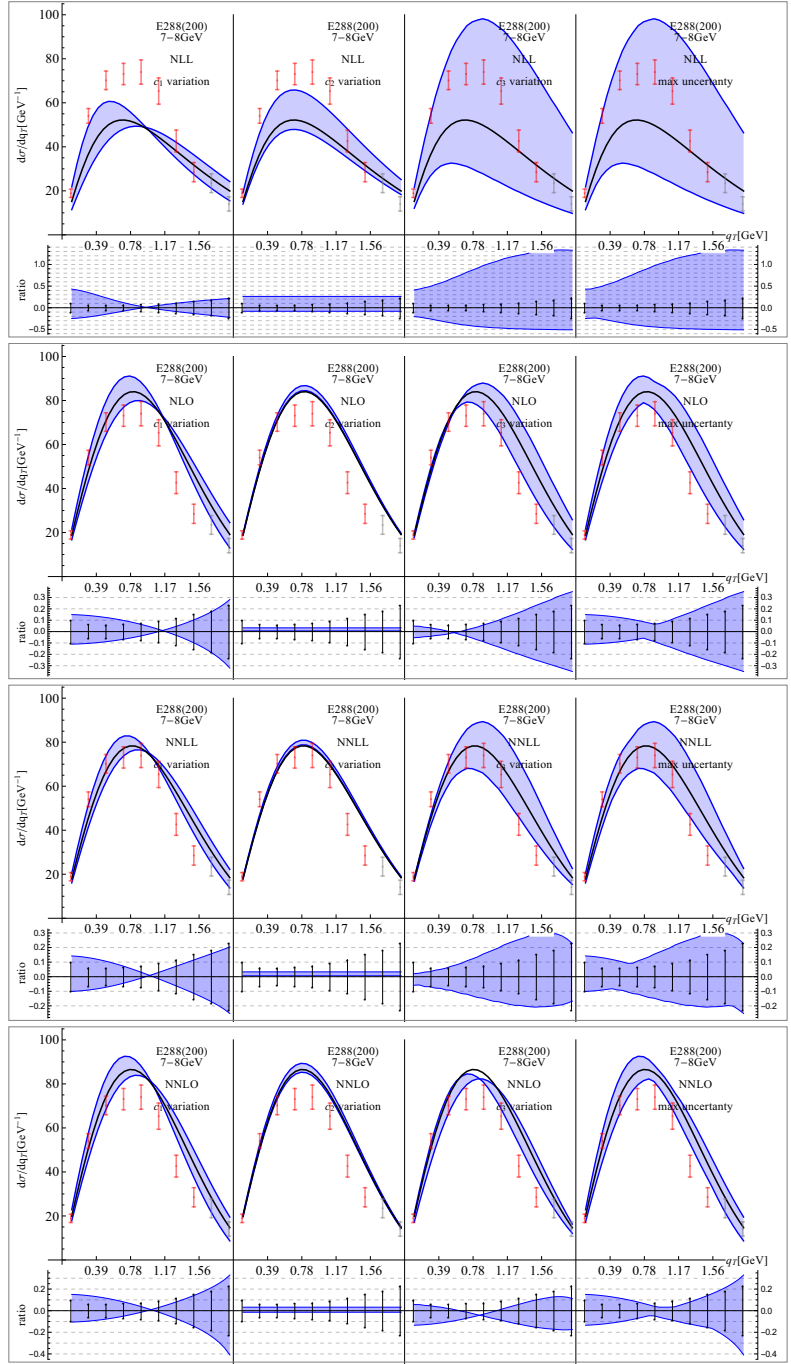


Figure 83: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

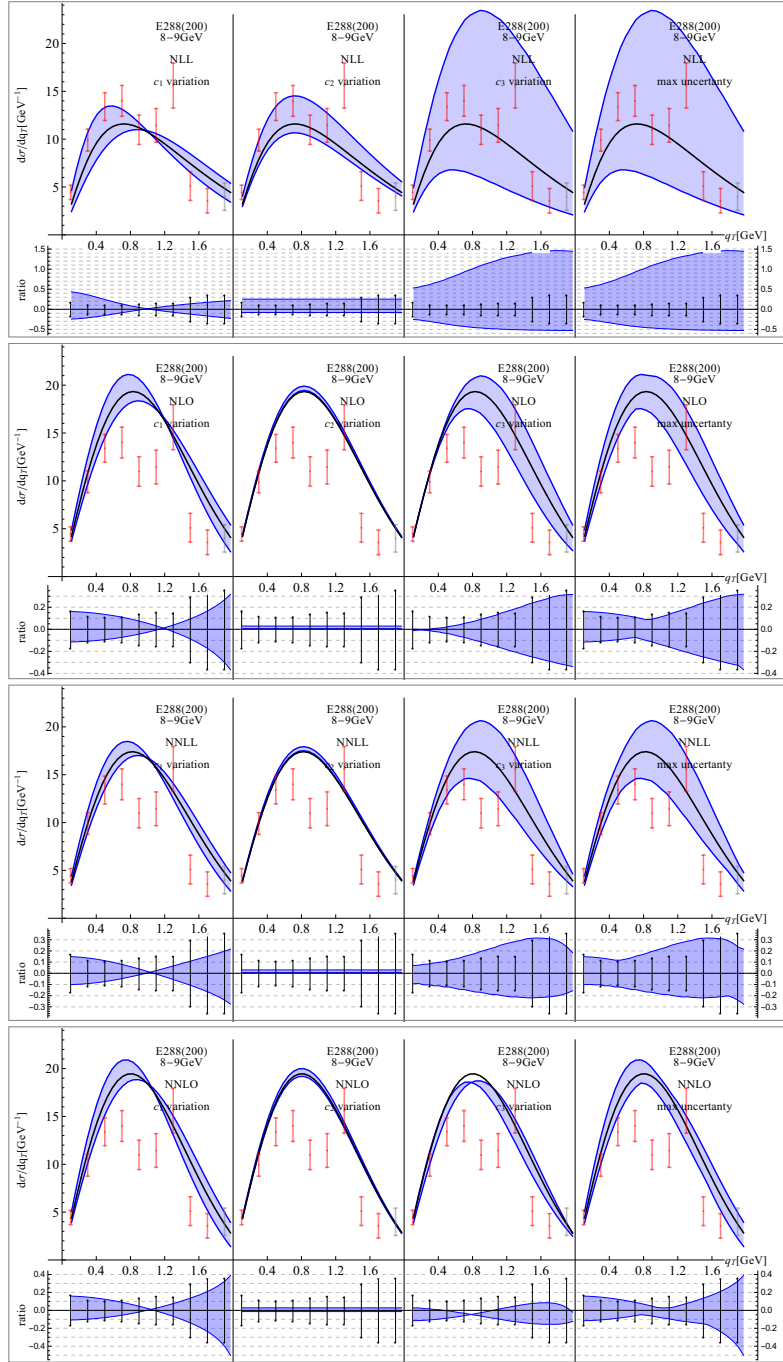


Figure 84: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

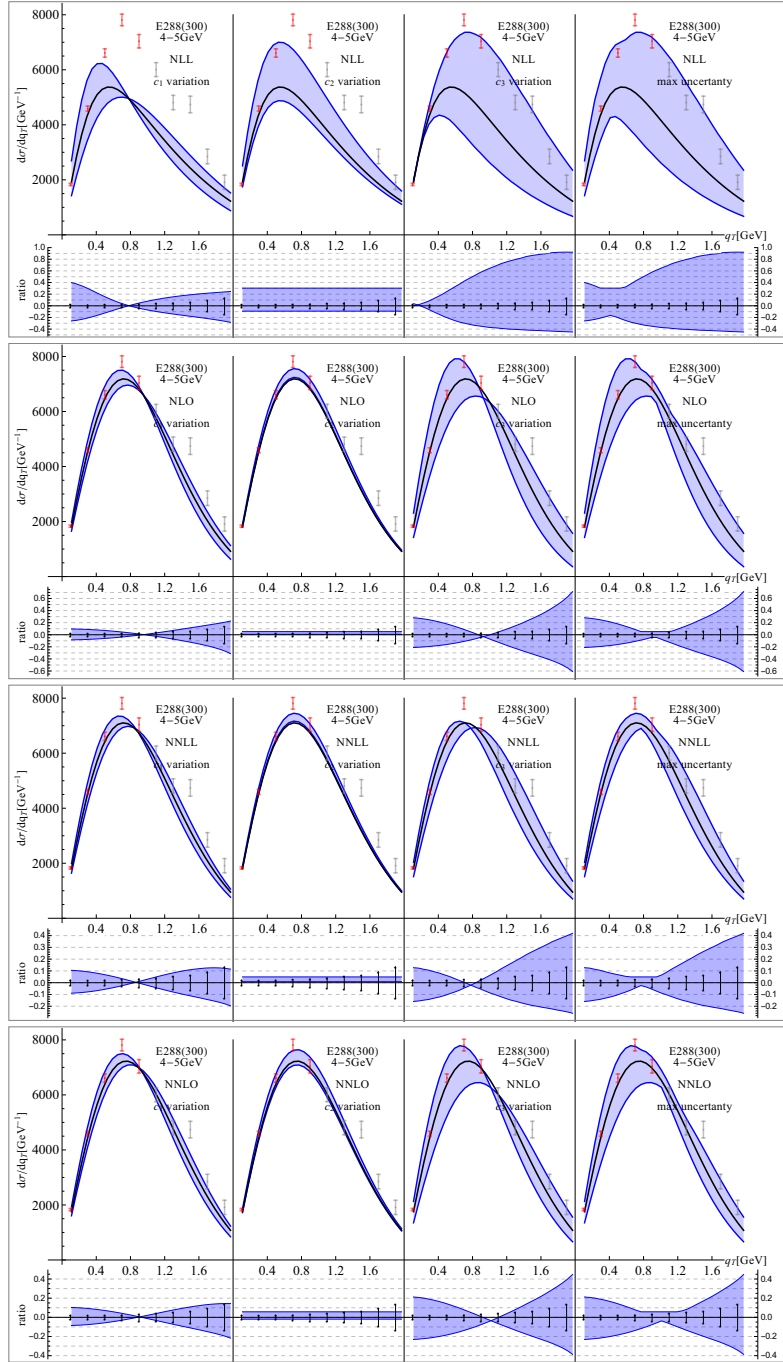


Figure 85: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

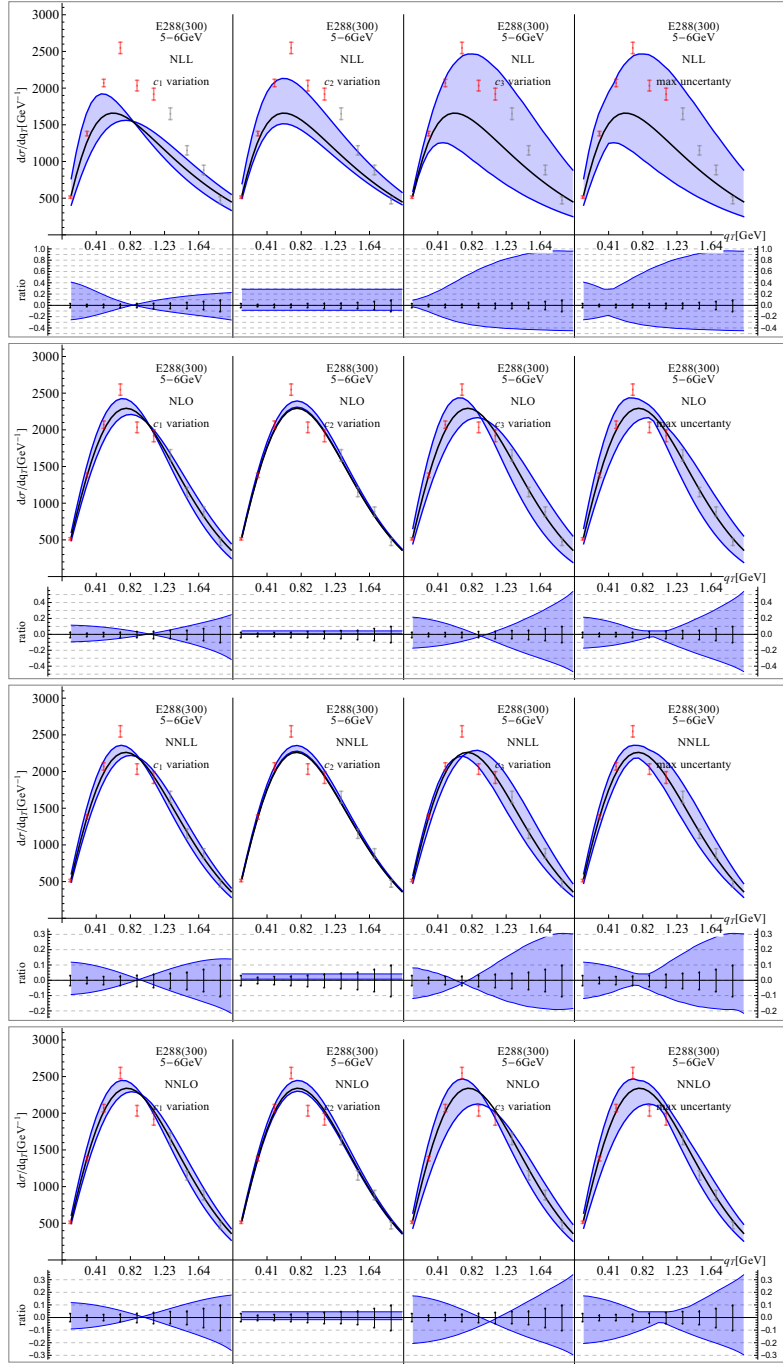


Figure 86: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



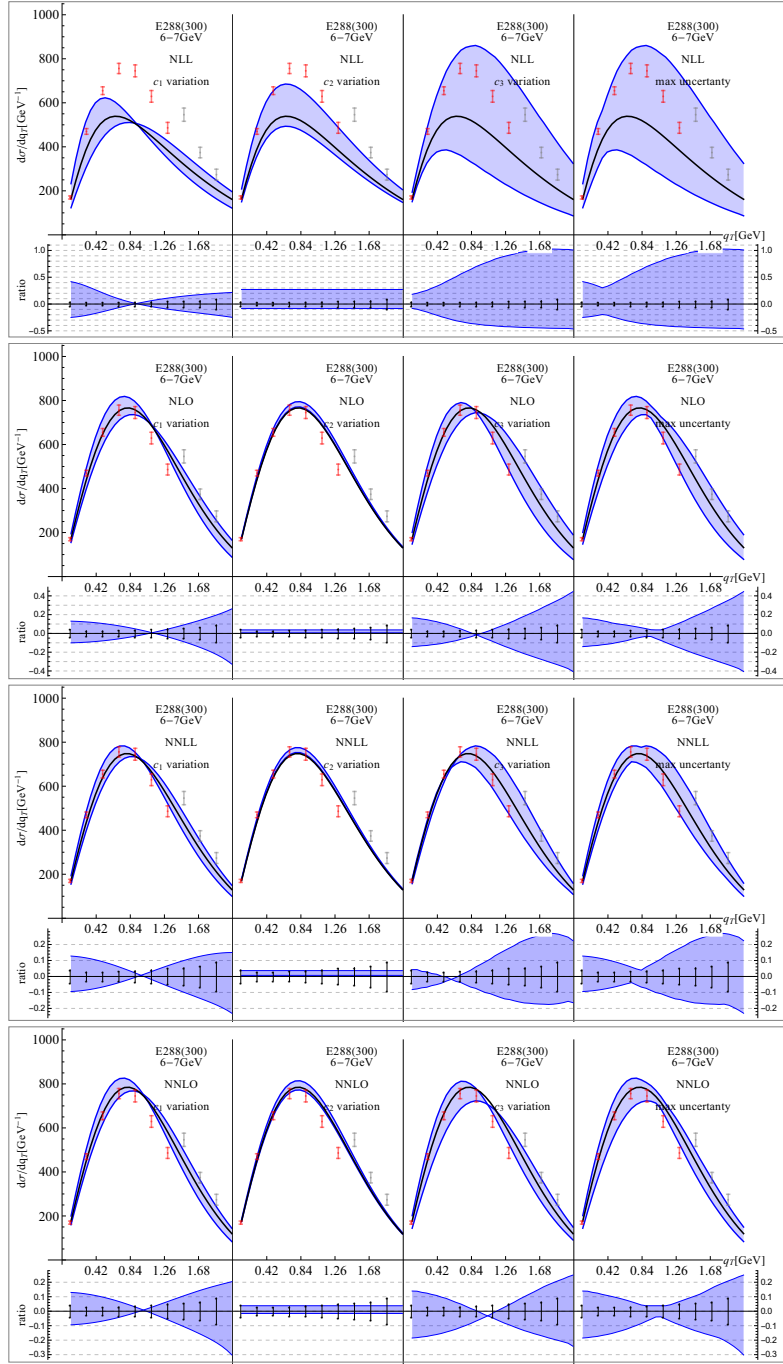


Figure 87: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

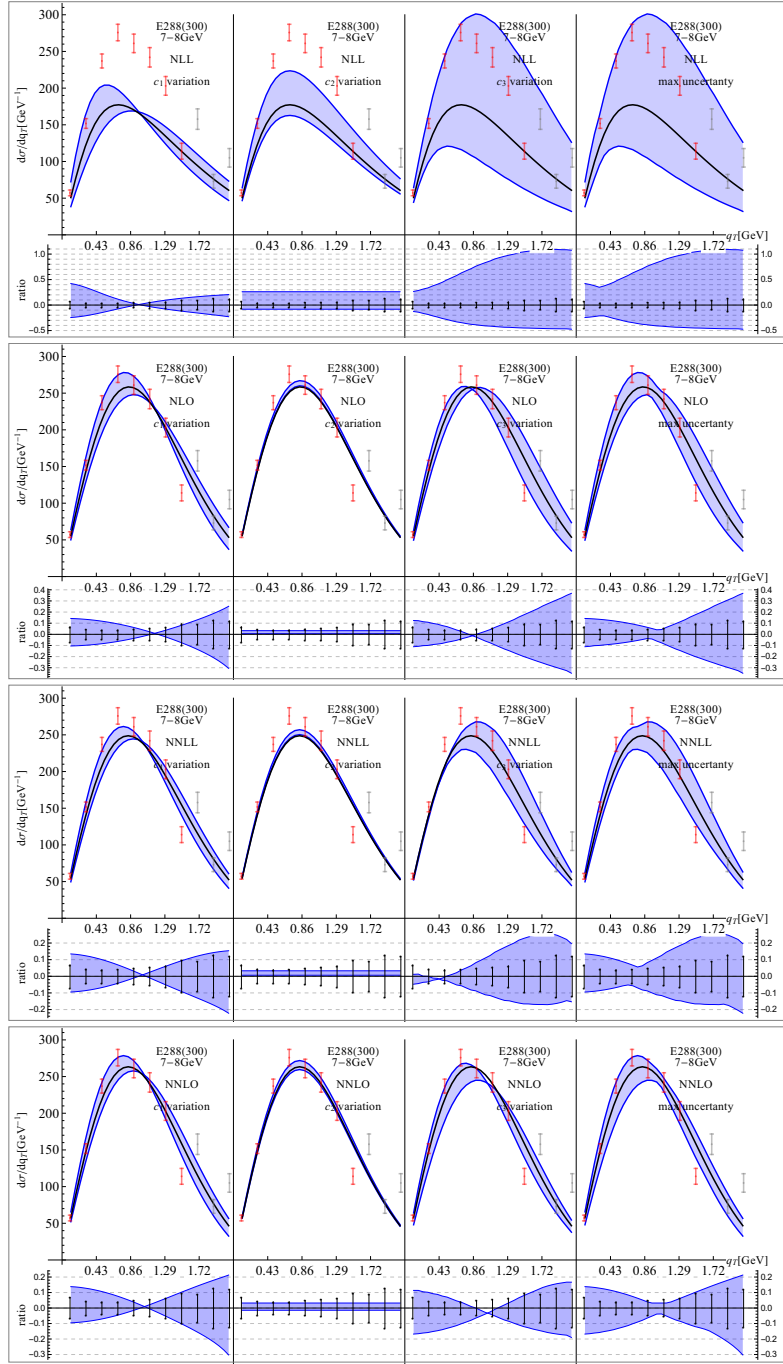


Figure 88: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

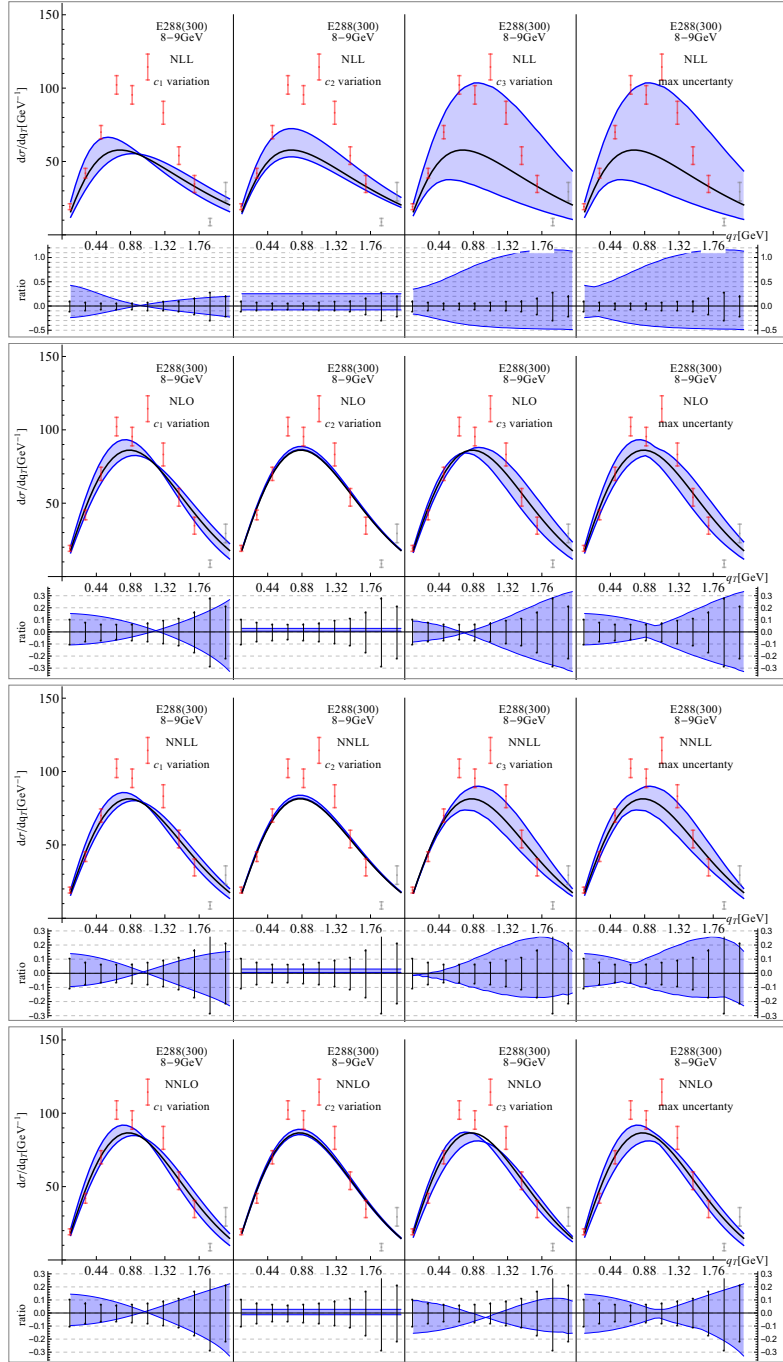


Figure 89: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

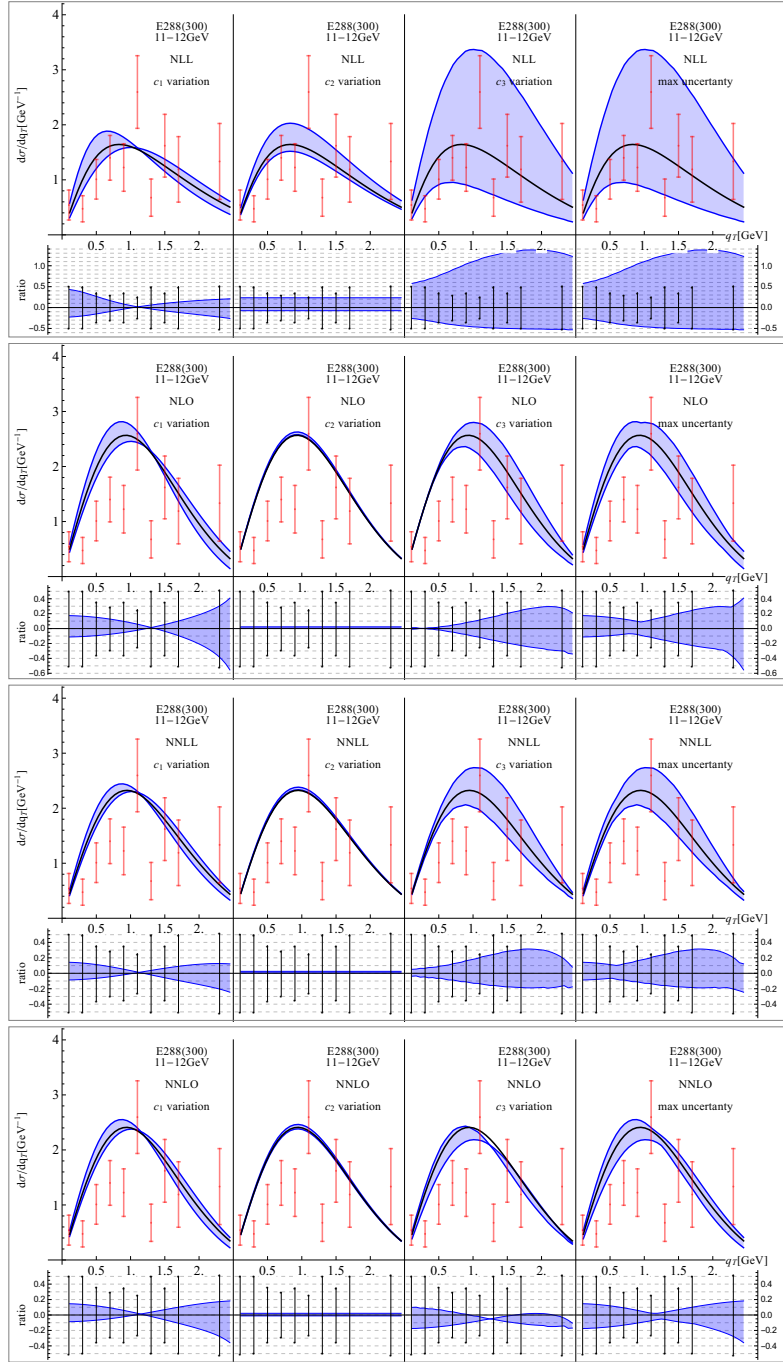


Figure 90: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

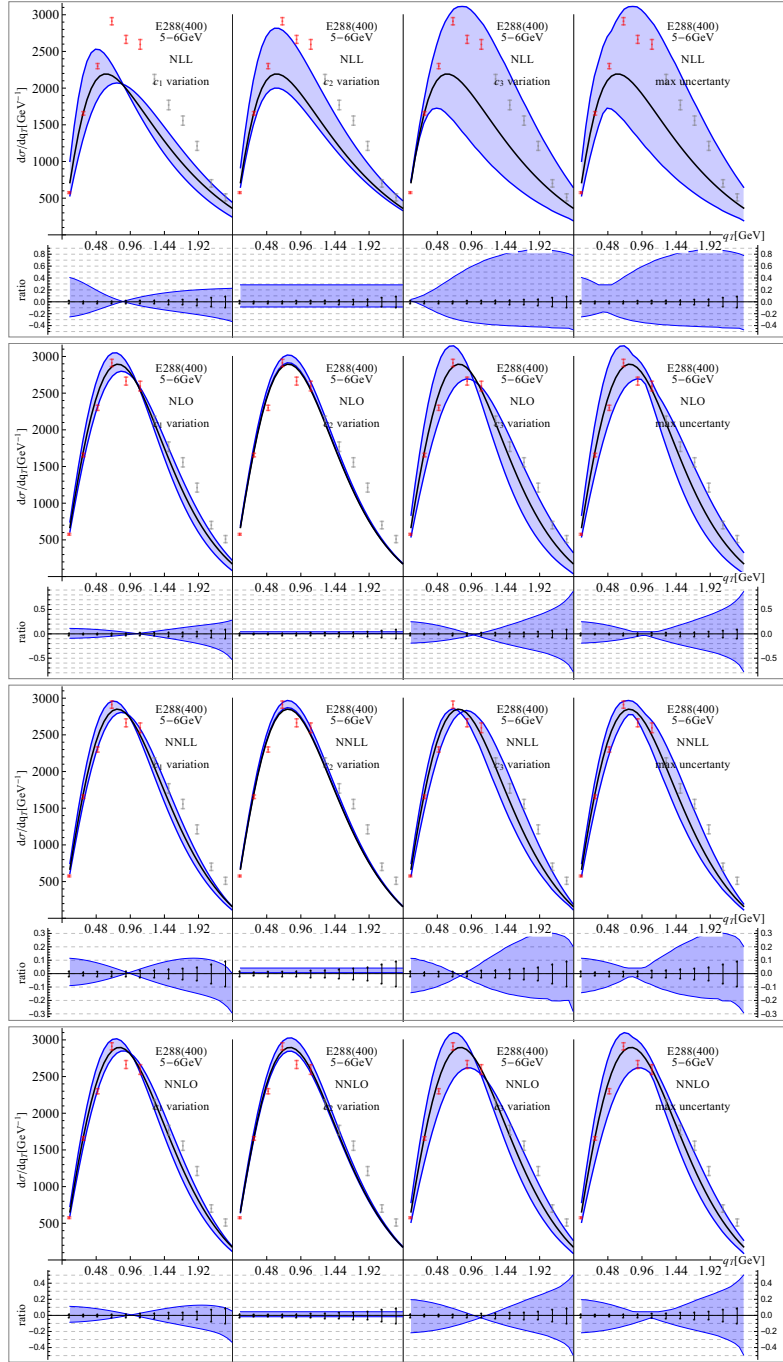


Figure 91: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

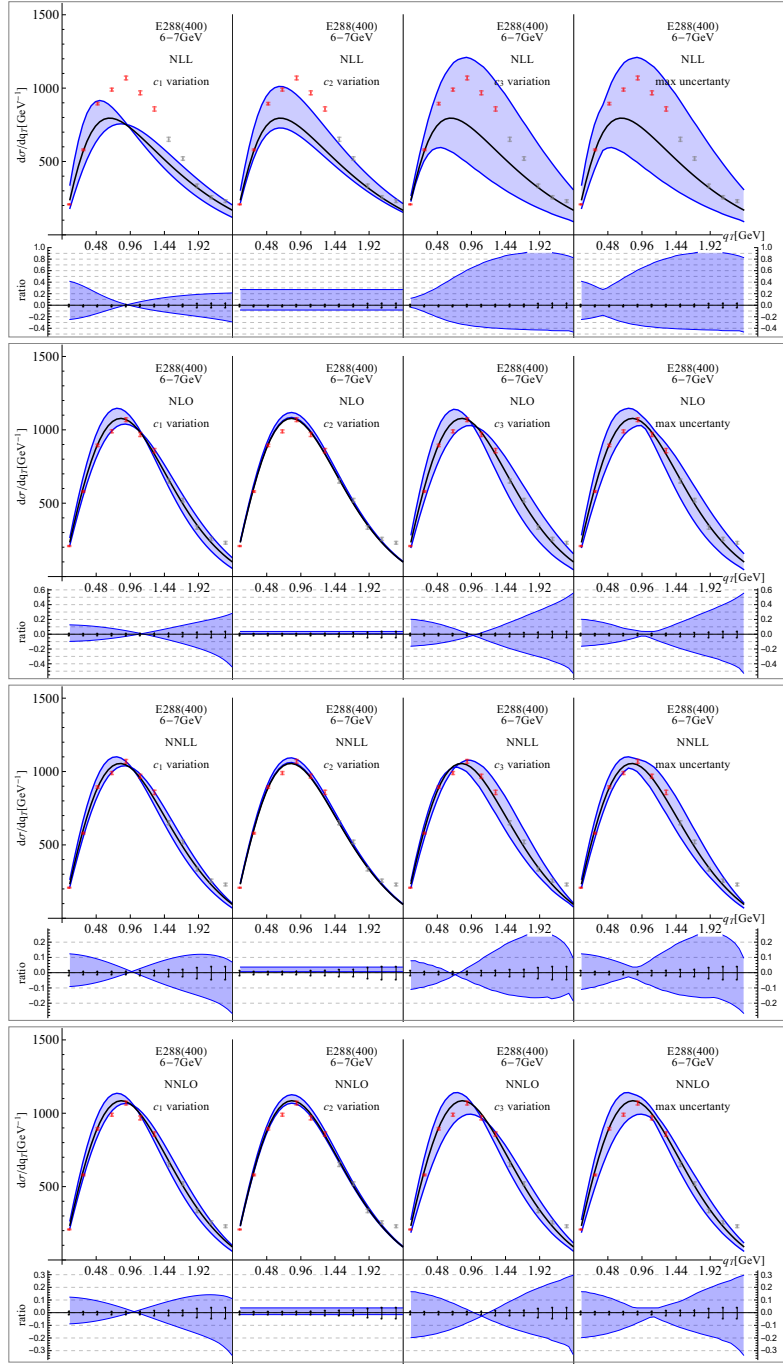


Figure 92: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

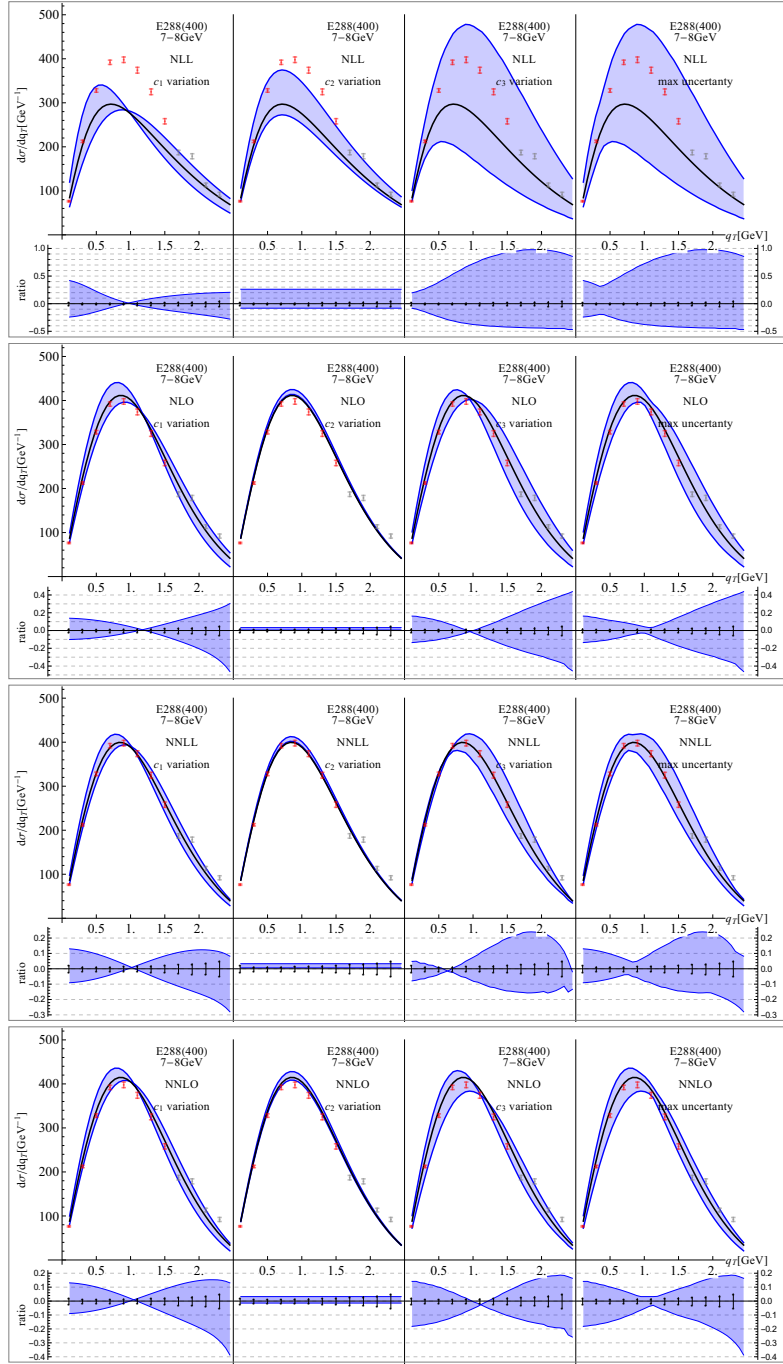


Figure 93: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

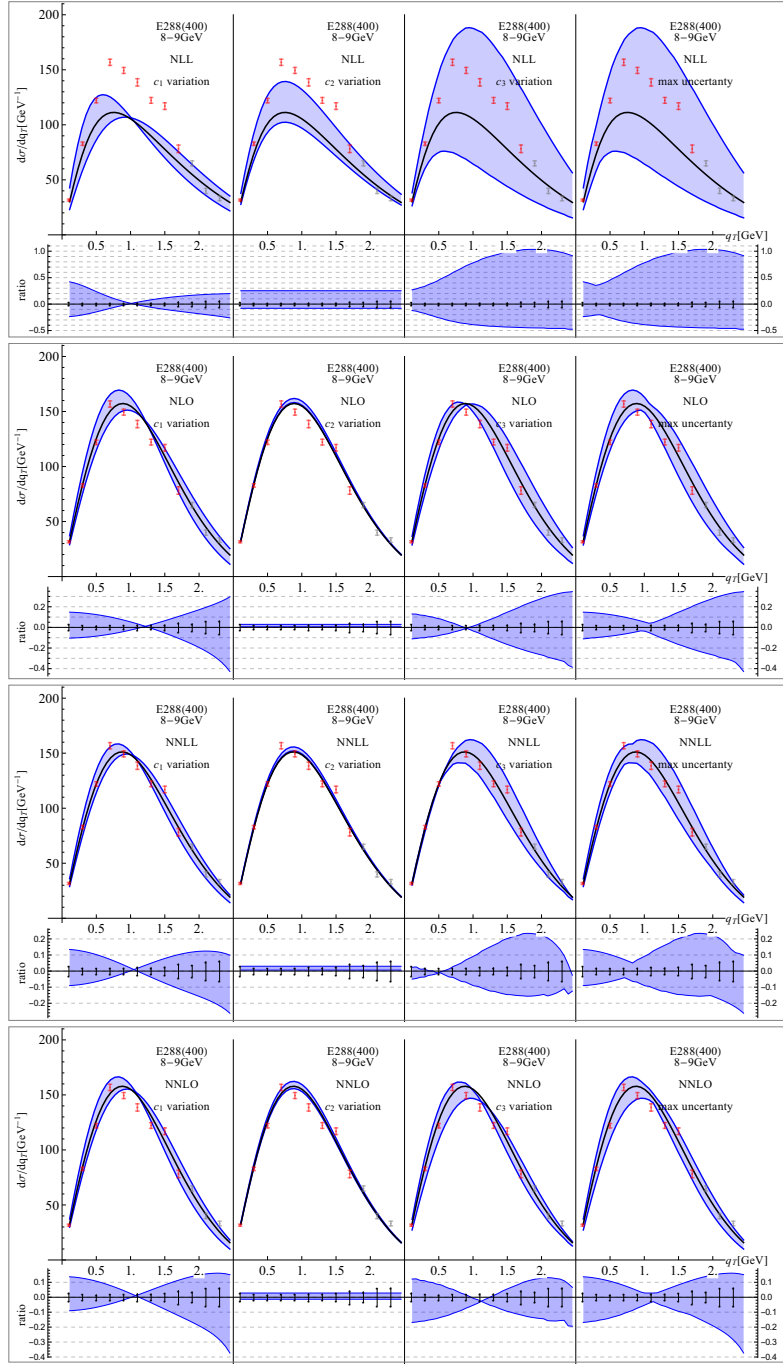


Figure 94: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$



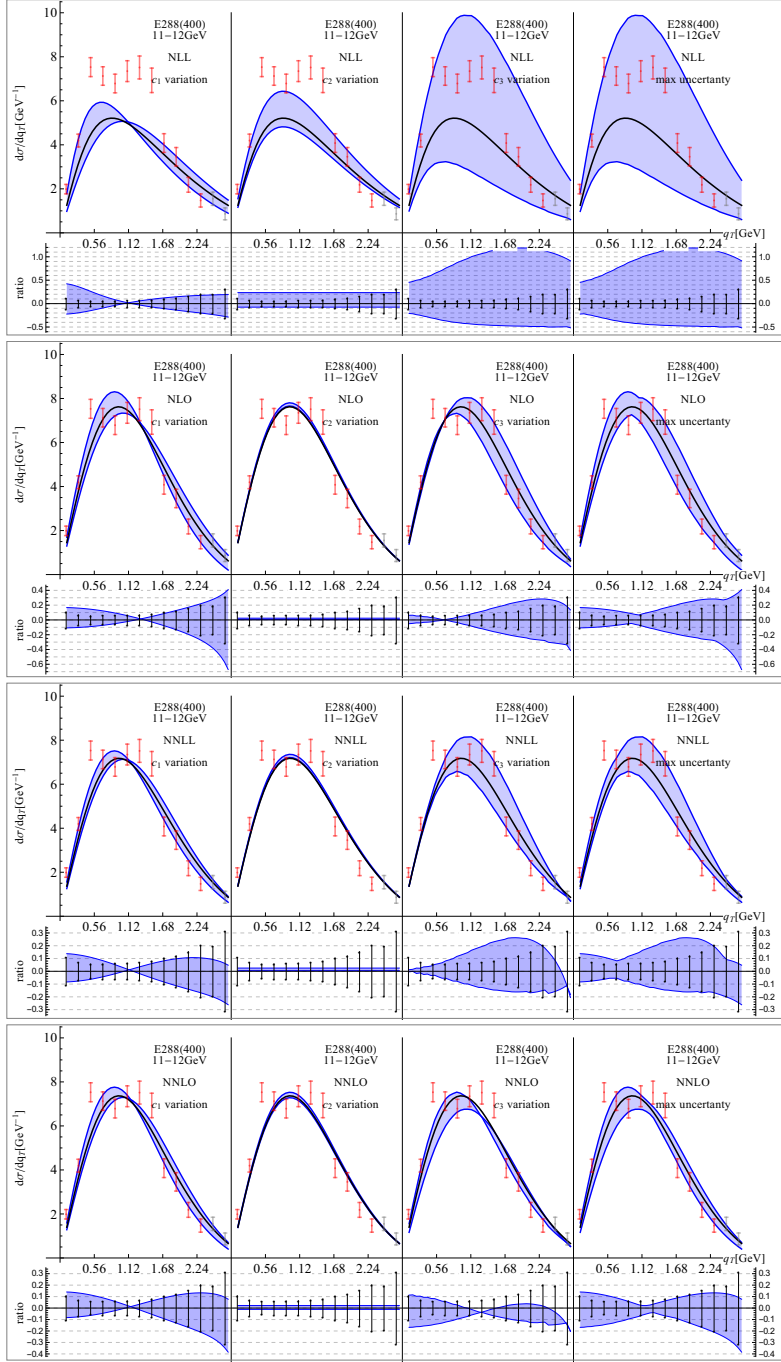


Figure 95: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

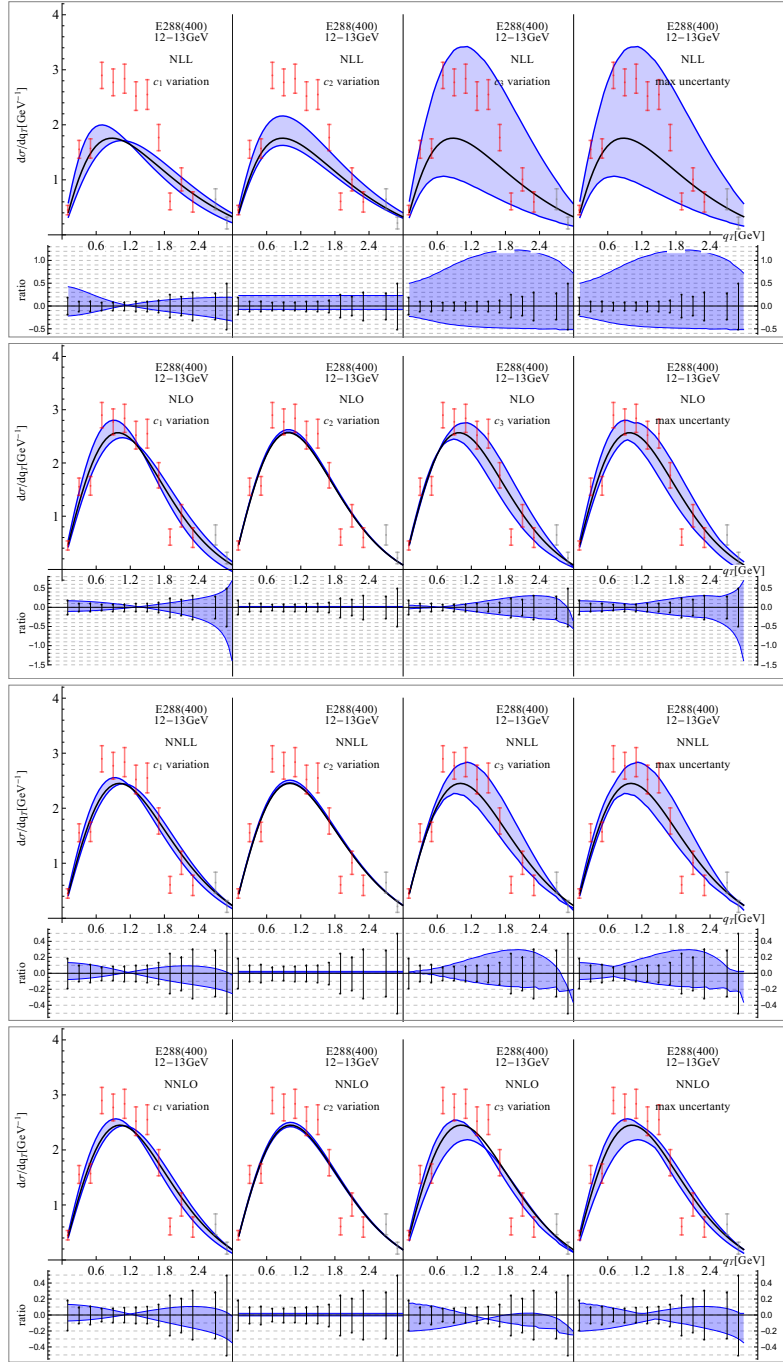


Figure 96: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

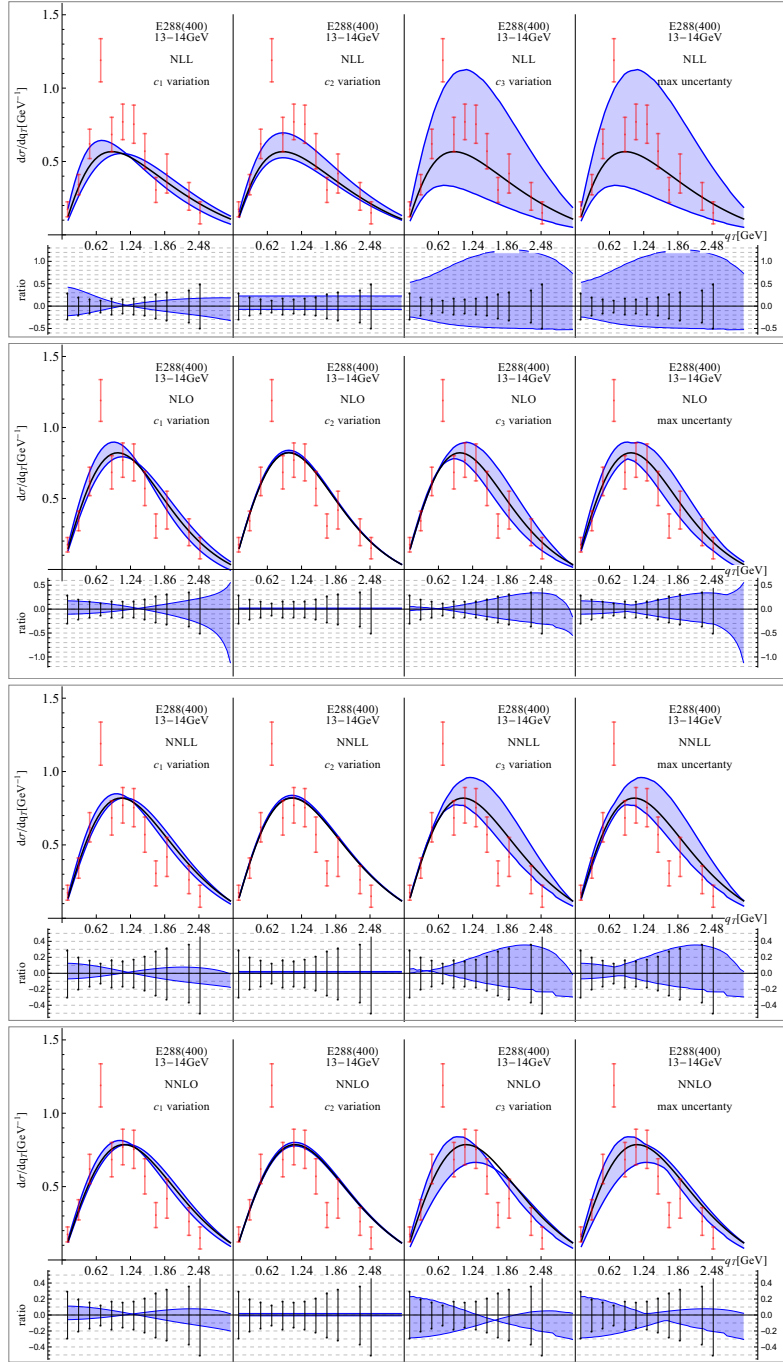


Figure 97: Theoretical uncertainties with respect to variation of scale constants  $c_{1,2,3}$ .  $\mu = \mu_b + 1$

**5 Result of fit**  
**Model 1**

Result of fit  
Model 1  
Tevatron

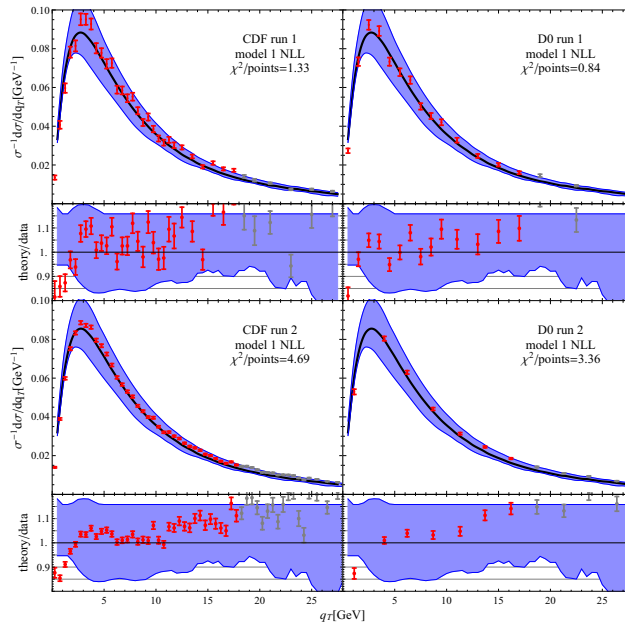


Figure 98: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.25$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

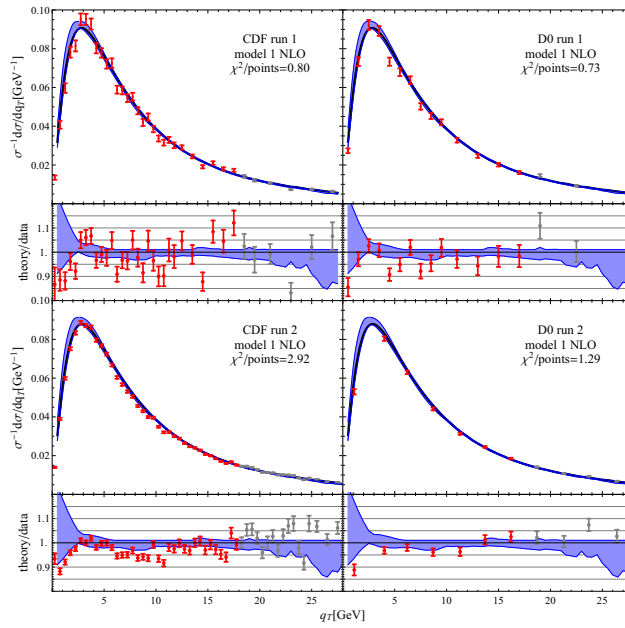


Figure 99: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

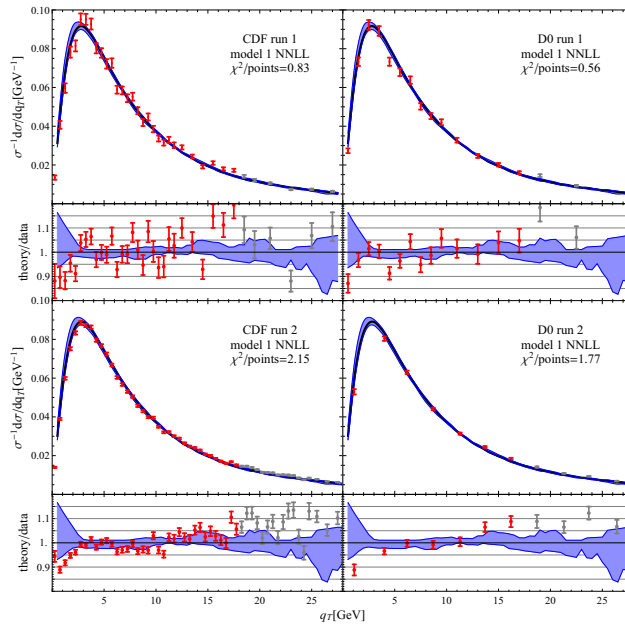


Figure 100: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

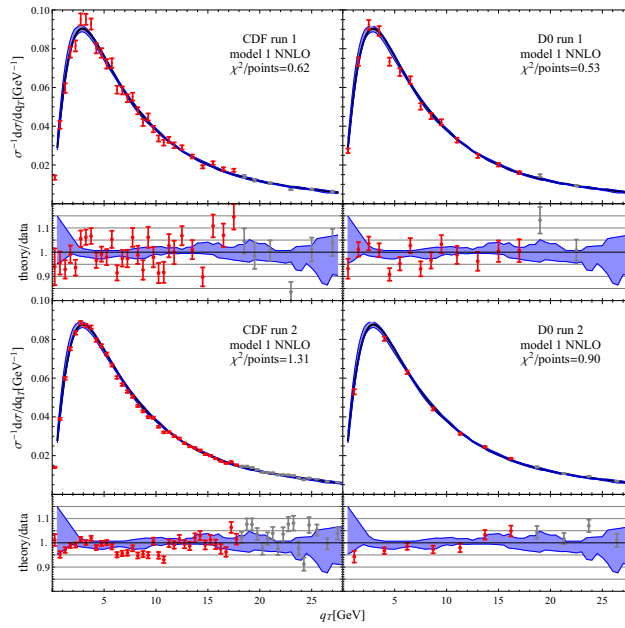


Figure 101: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.



Result of fit  
Model 1  
LHC+CMS  
Z-boson

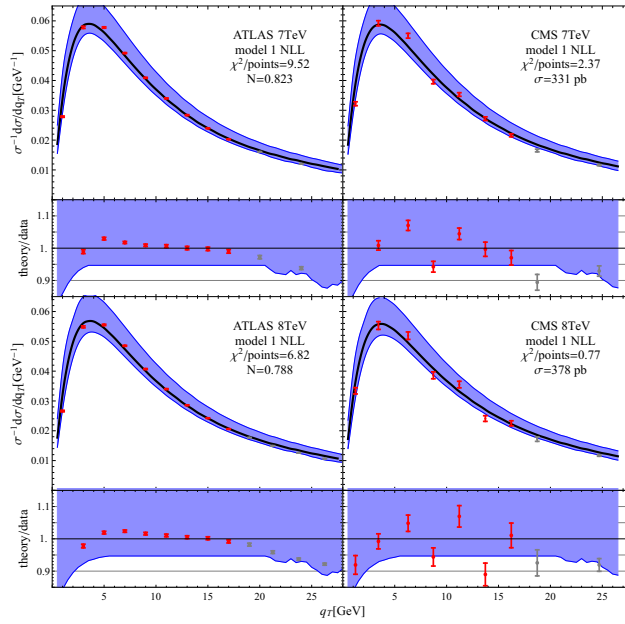


Figure 102: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

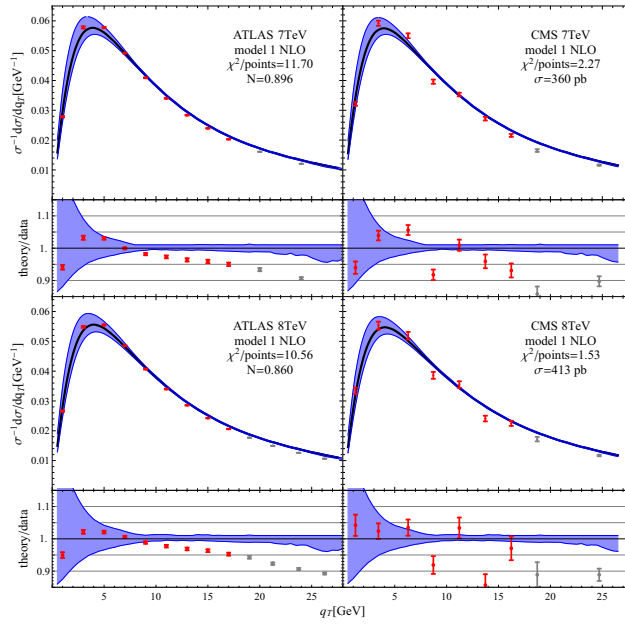


Figure 103: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

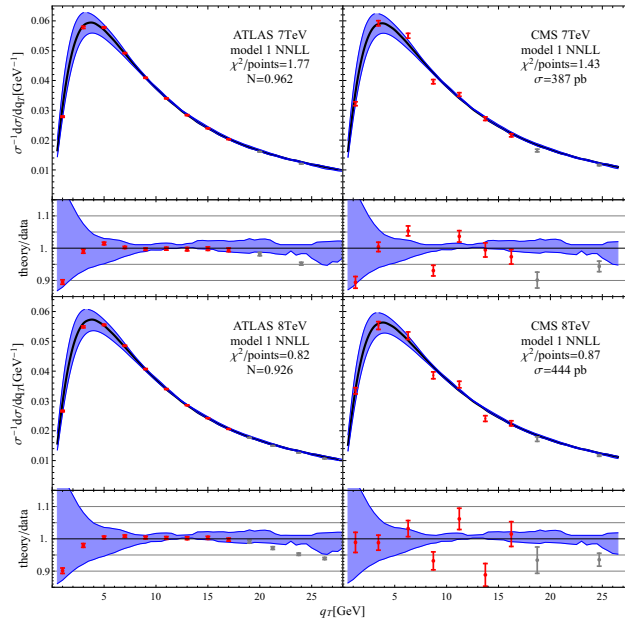


Figure 104: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

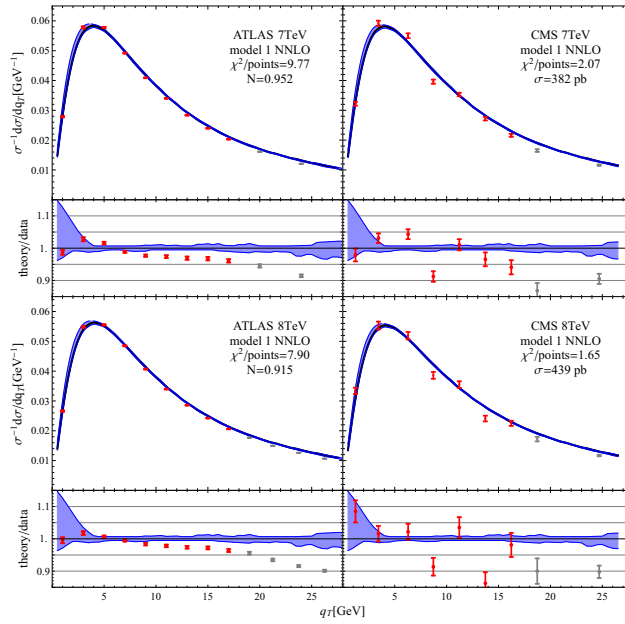


Figure 105: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

Result of fit

Model 1  
LHCb

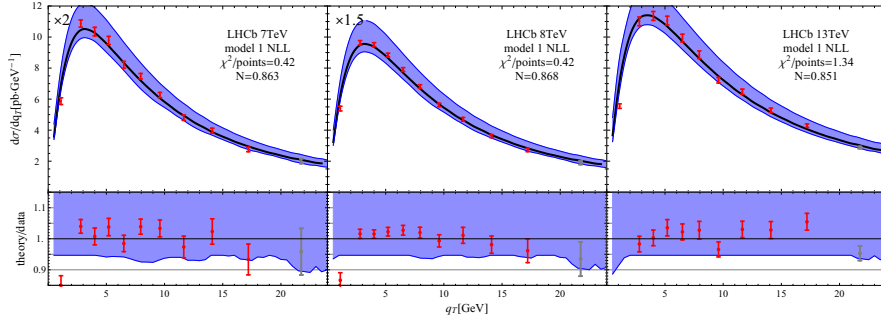


Figure 106: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

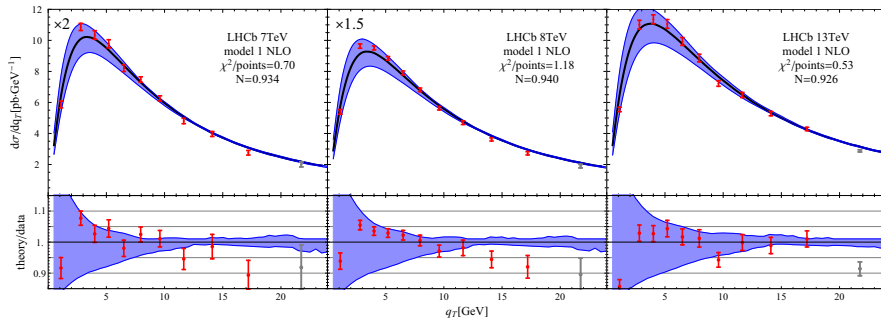


Figure 107: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

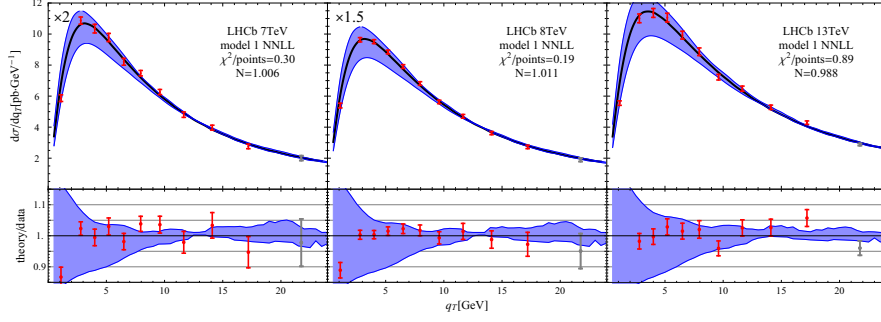


Figure 108: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

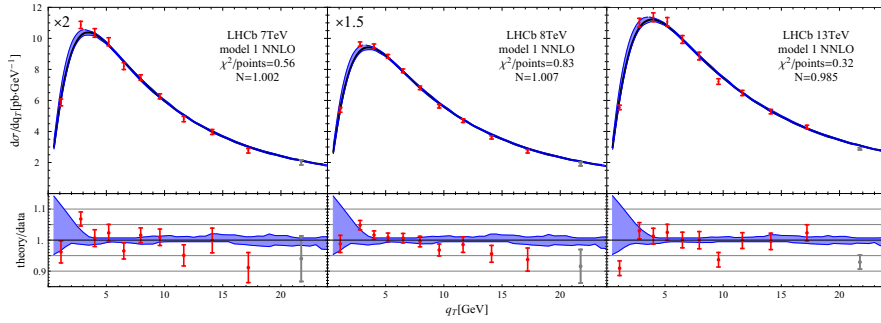


Figure 109: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.



Result of fit  
Model 1  
ATLAS DY-region

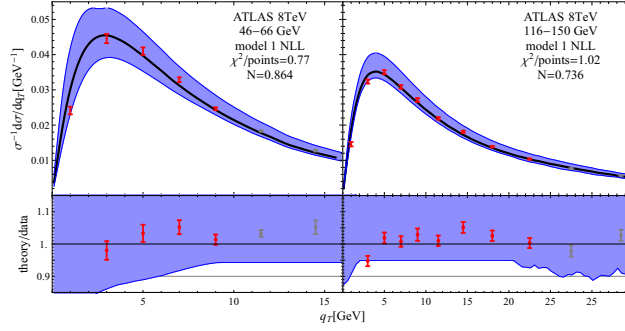


Figure 110: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

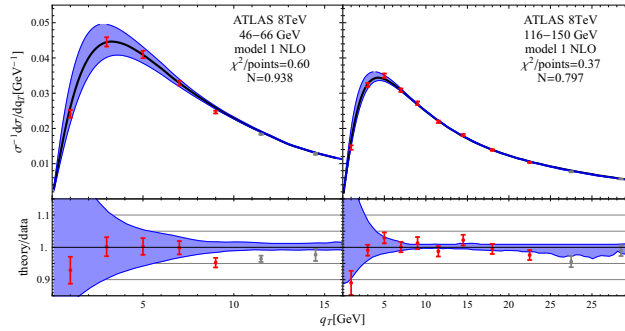


Figure 111: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

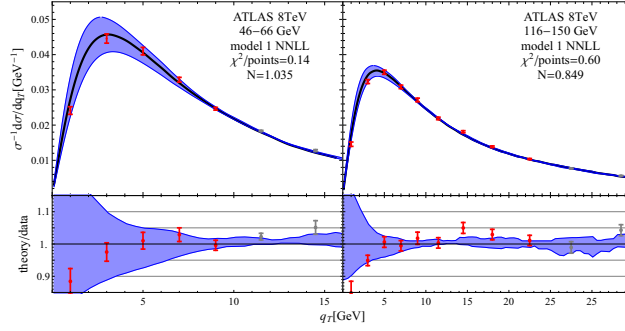


Figure 112: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

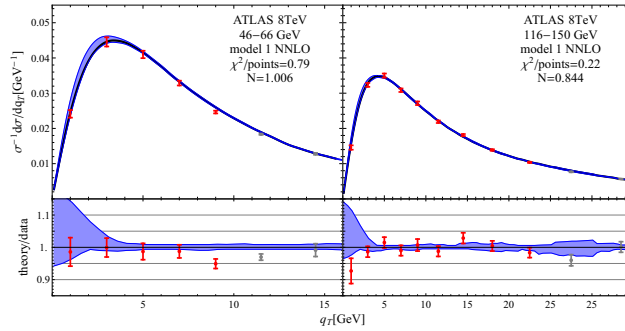


Figure 113: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

Result of fit

Model 1  
E288

**6 Result of fit**  
**Model 2**

Result of fit  
Model 2  
Tevatron

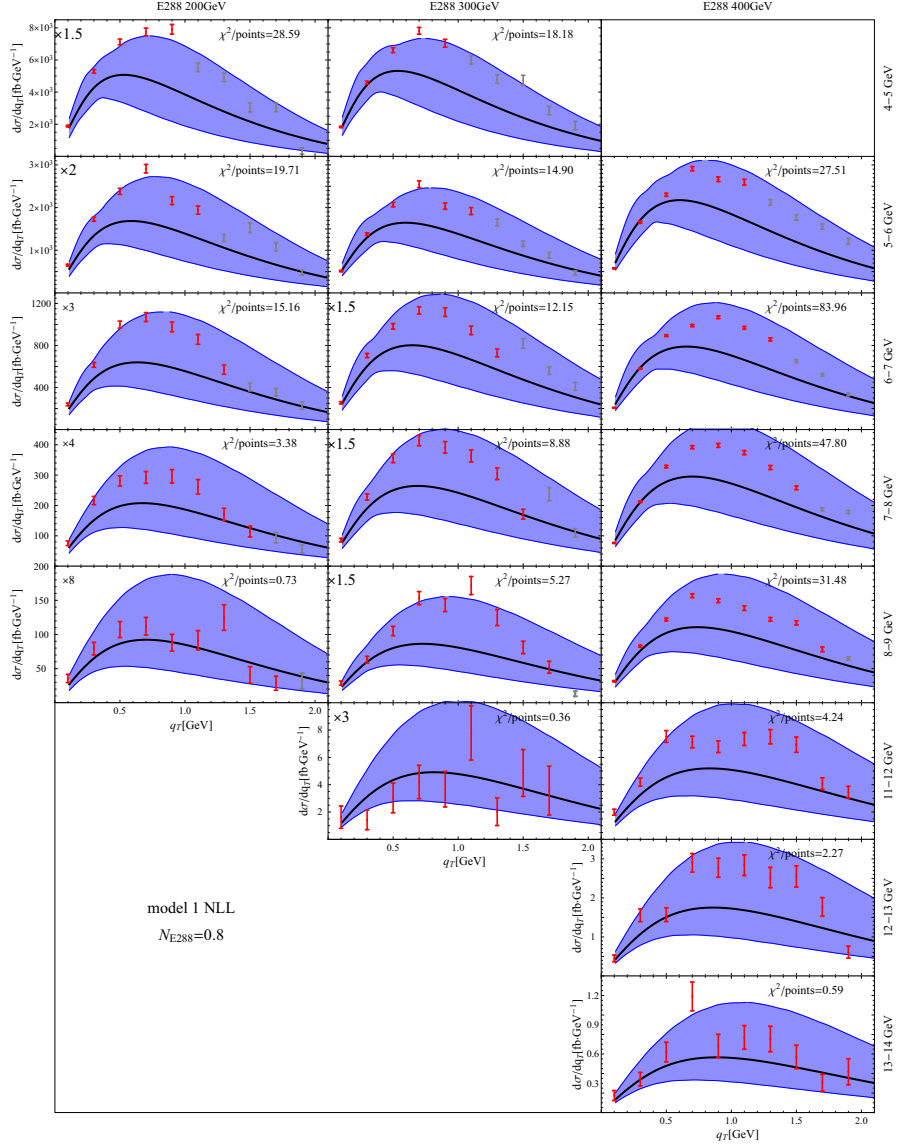


Figure 114: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

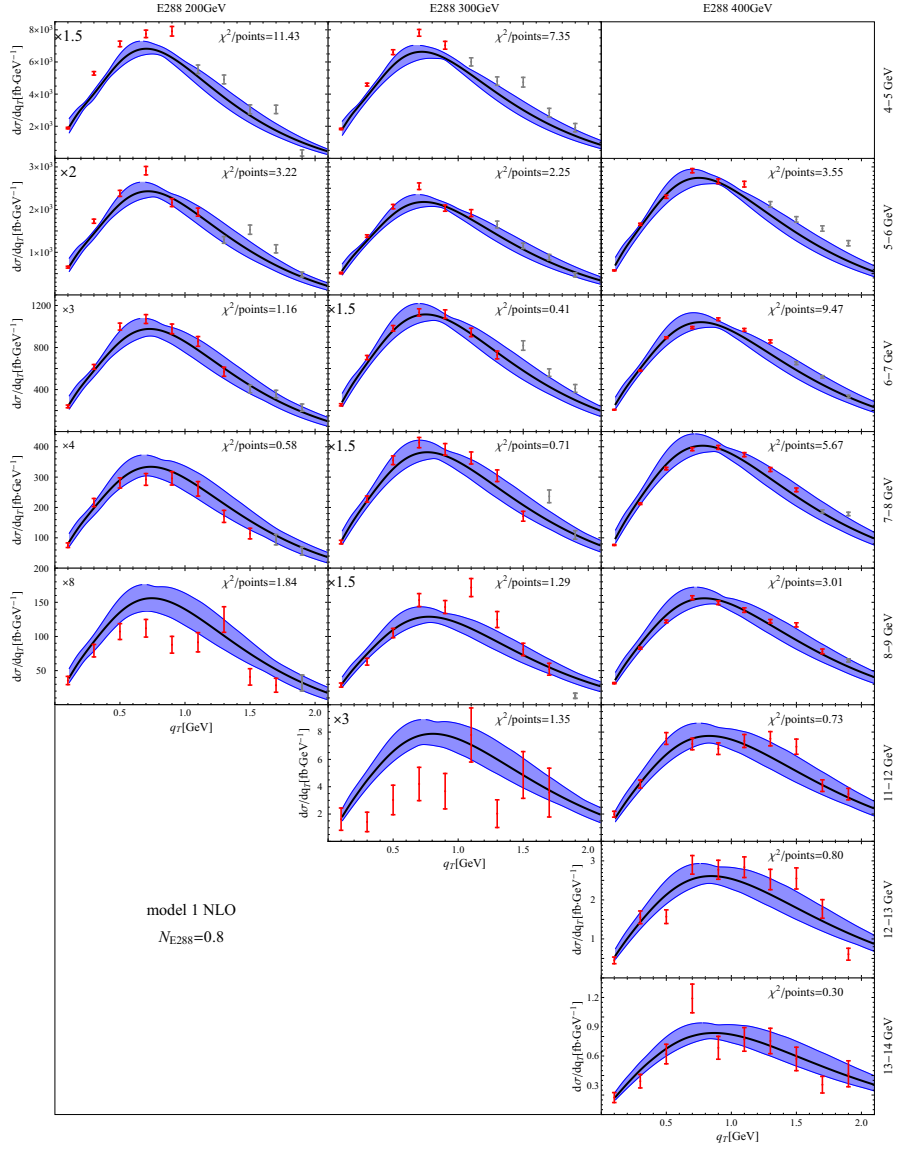


Figure 115: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

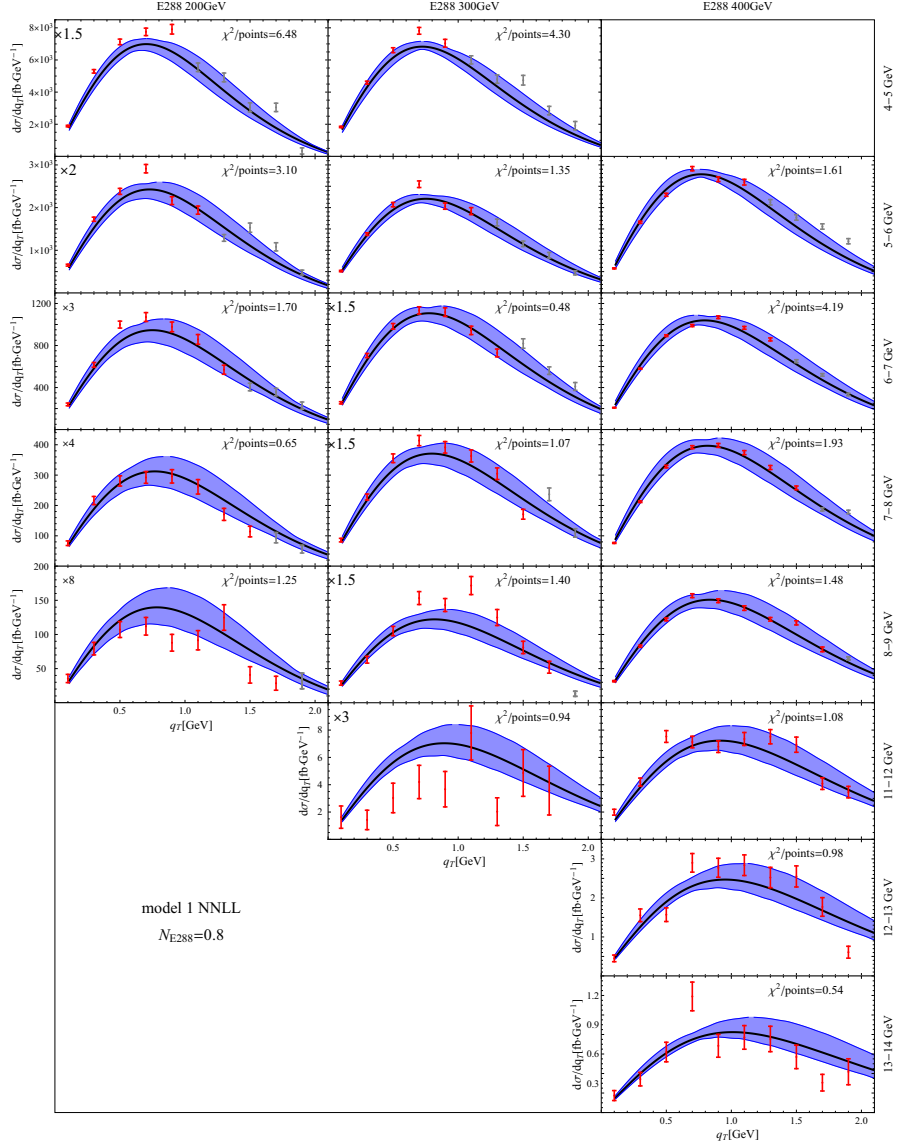


Figure 116: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.



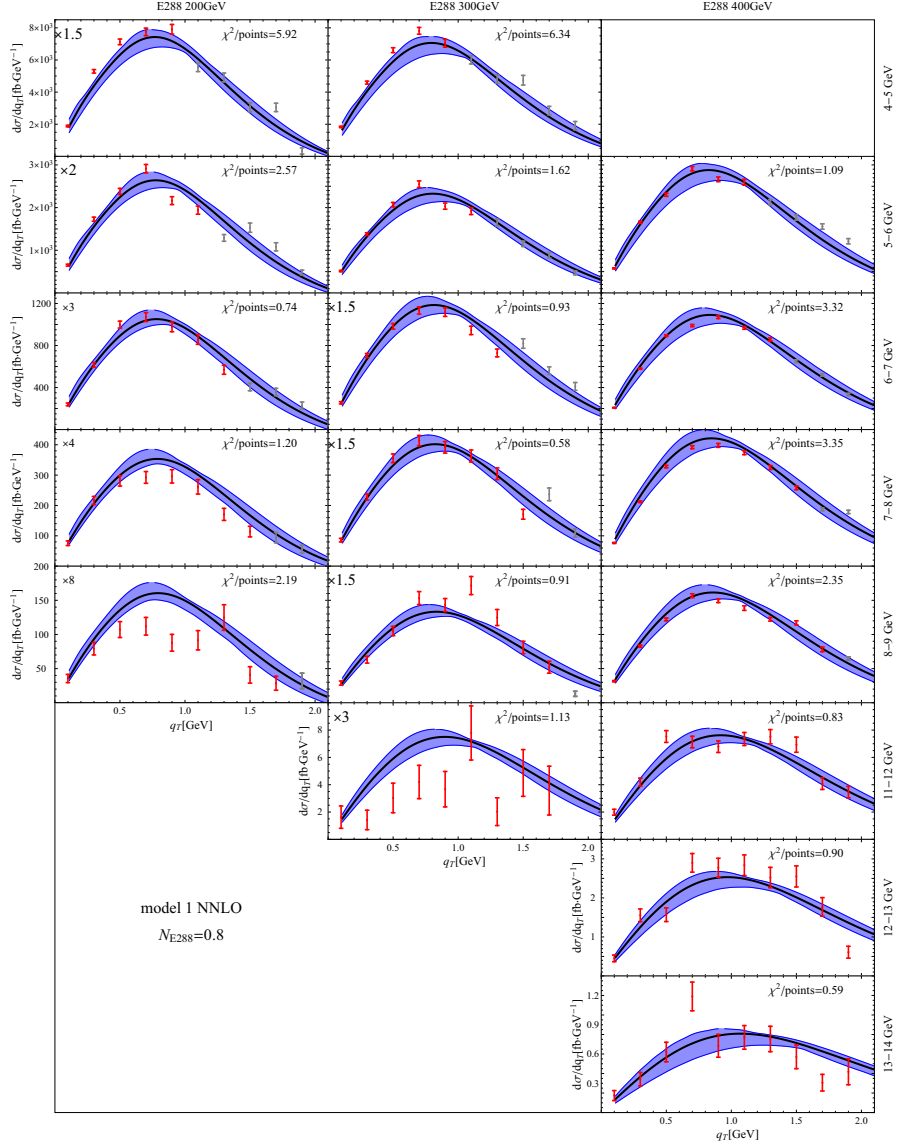


Figure 117: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

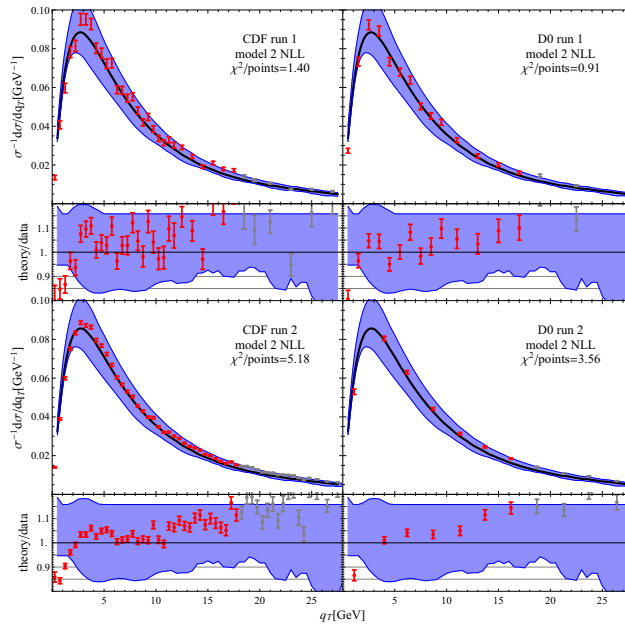


Figure 118: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.25$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

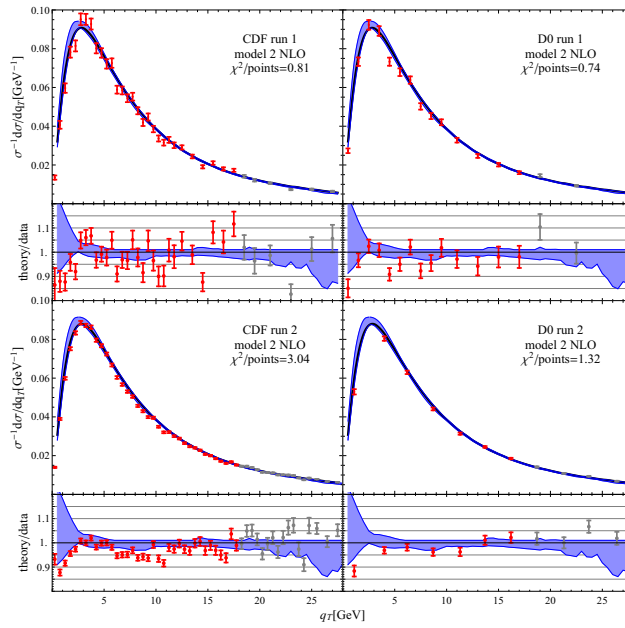


Figure 119: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

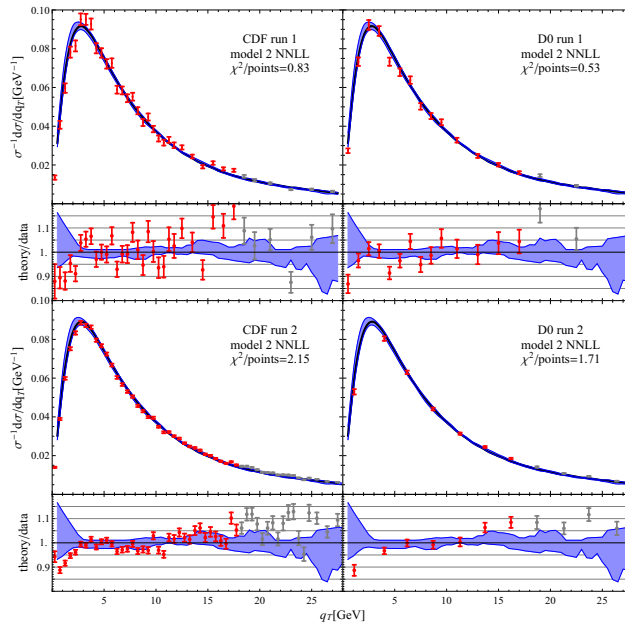


Figure 120: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

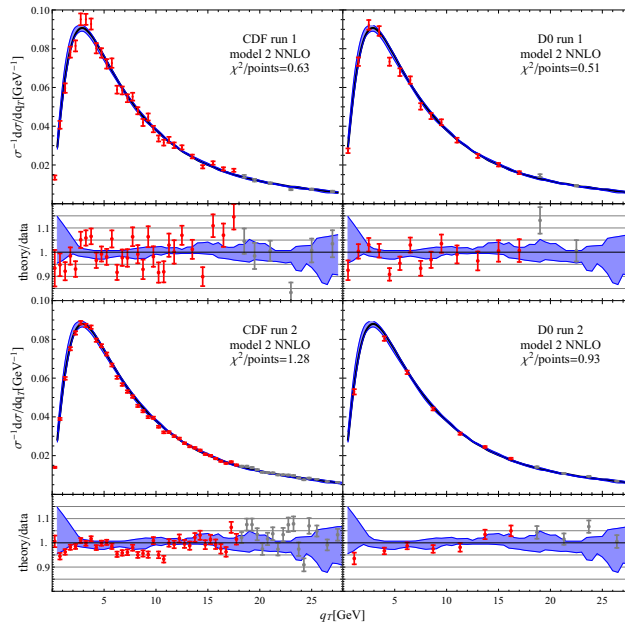


Figure 121: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

Result of fit  
Model 2  
LHC+CMS  
Z-boson

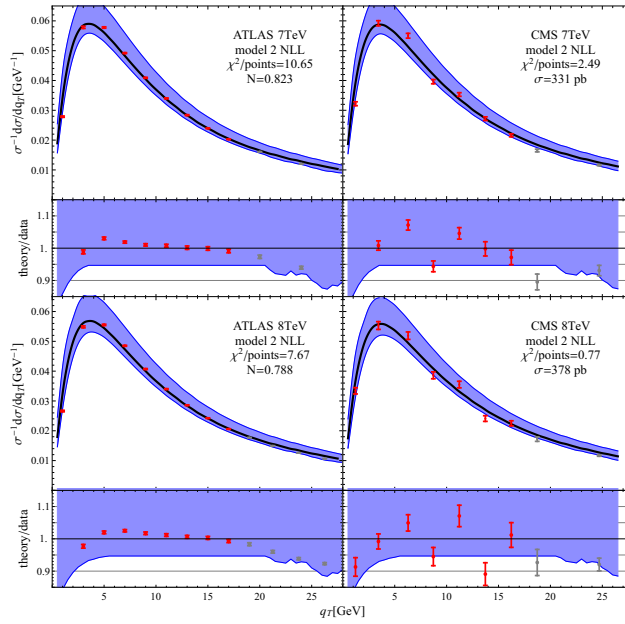


Figure 122: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

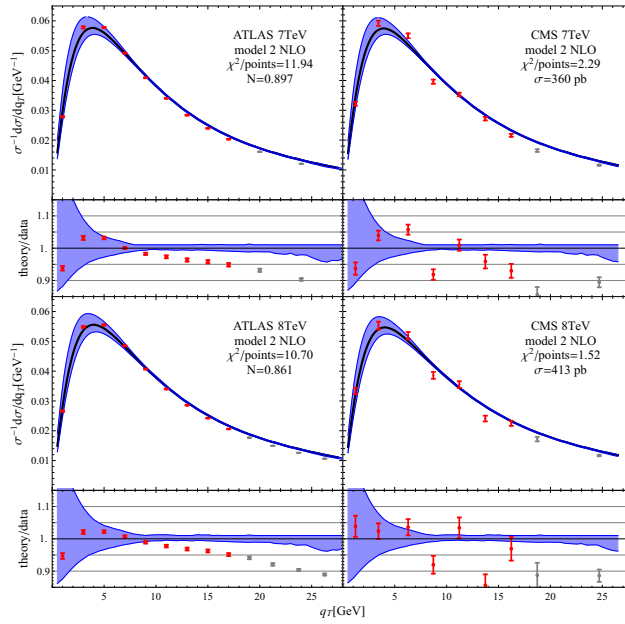


Figure 123: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.



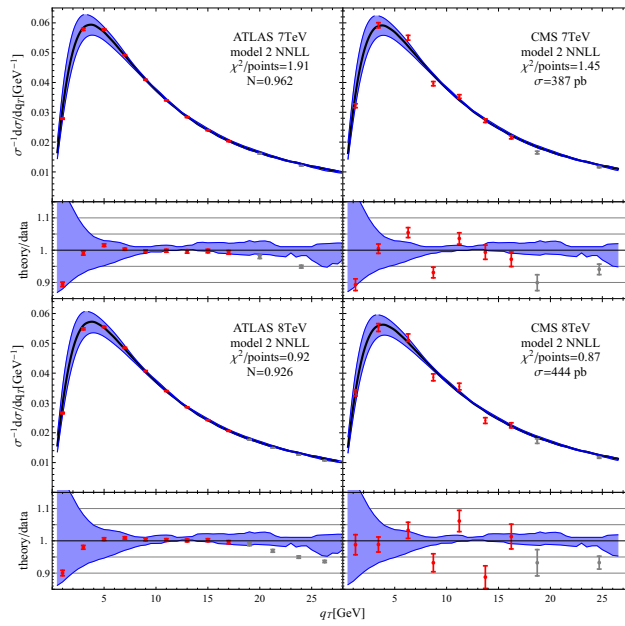


Figure 124: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

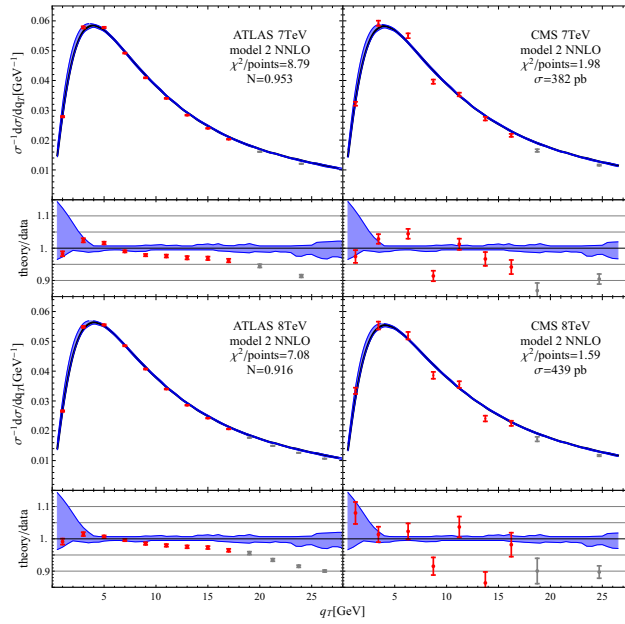


Figure 125: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

Result of fit  
Model 2  
LHCb

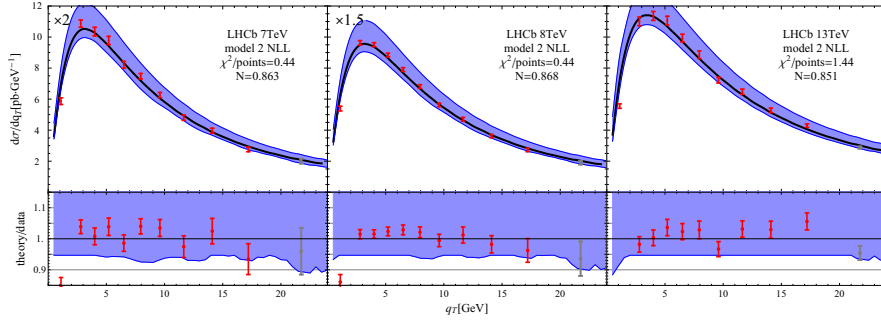


Figure 126: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

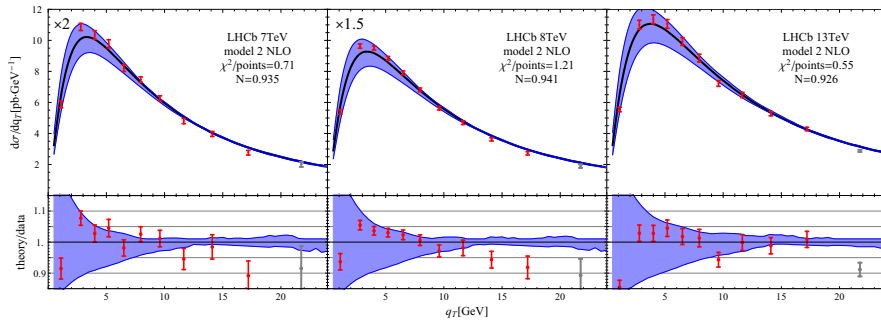


Figure 127: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

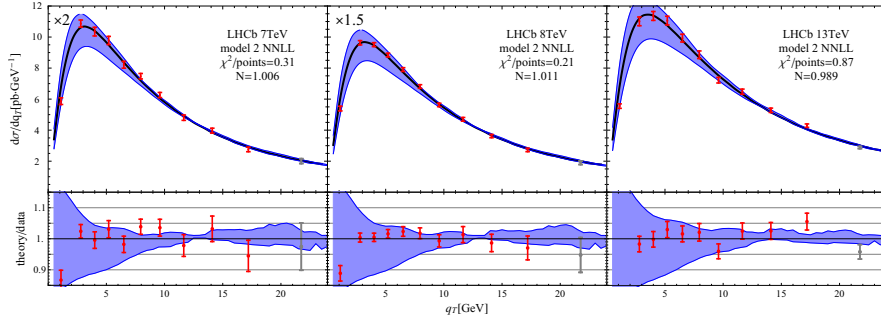


Figure 128: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

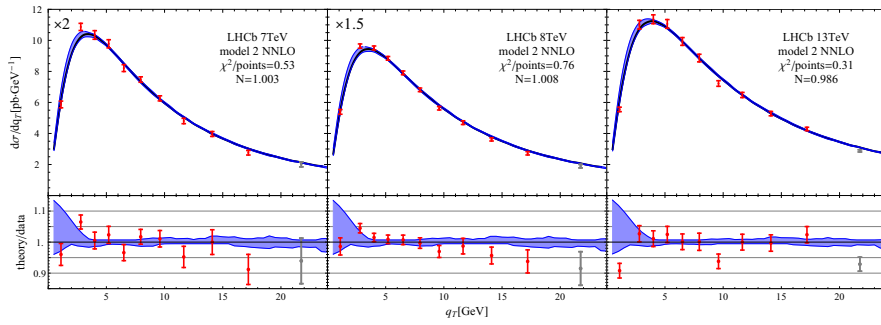


Figure 129: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

Result of fit  
Model 2  
ATLAS DY-region

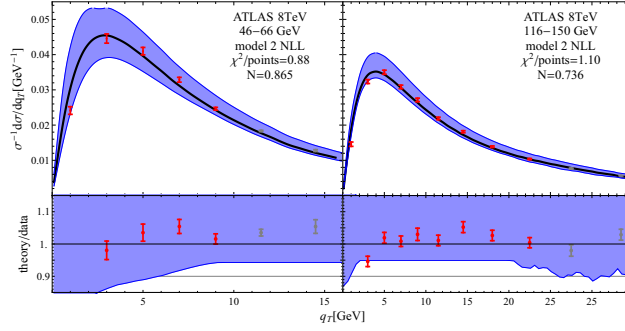


Figure 130: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

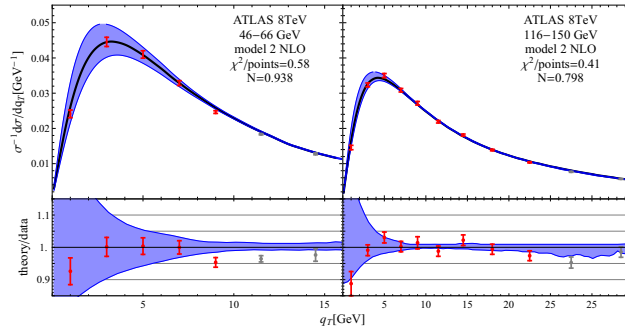


Figure 131: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

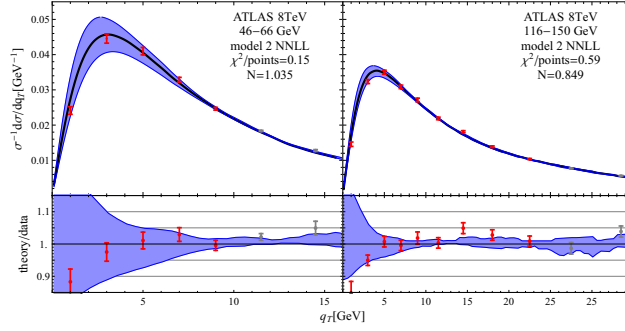


Figure 132: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

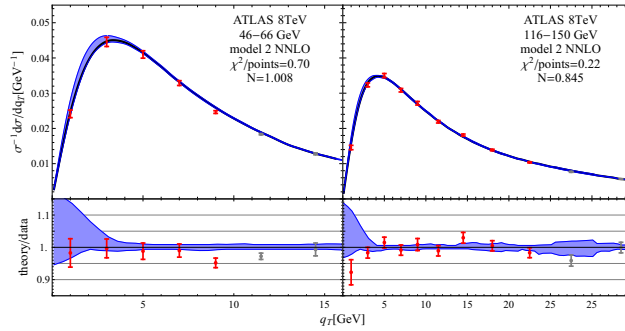


Figure 133: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.



Result of fit

Model 2  
E288

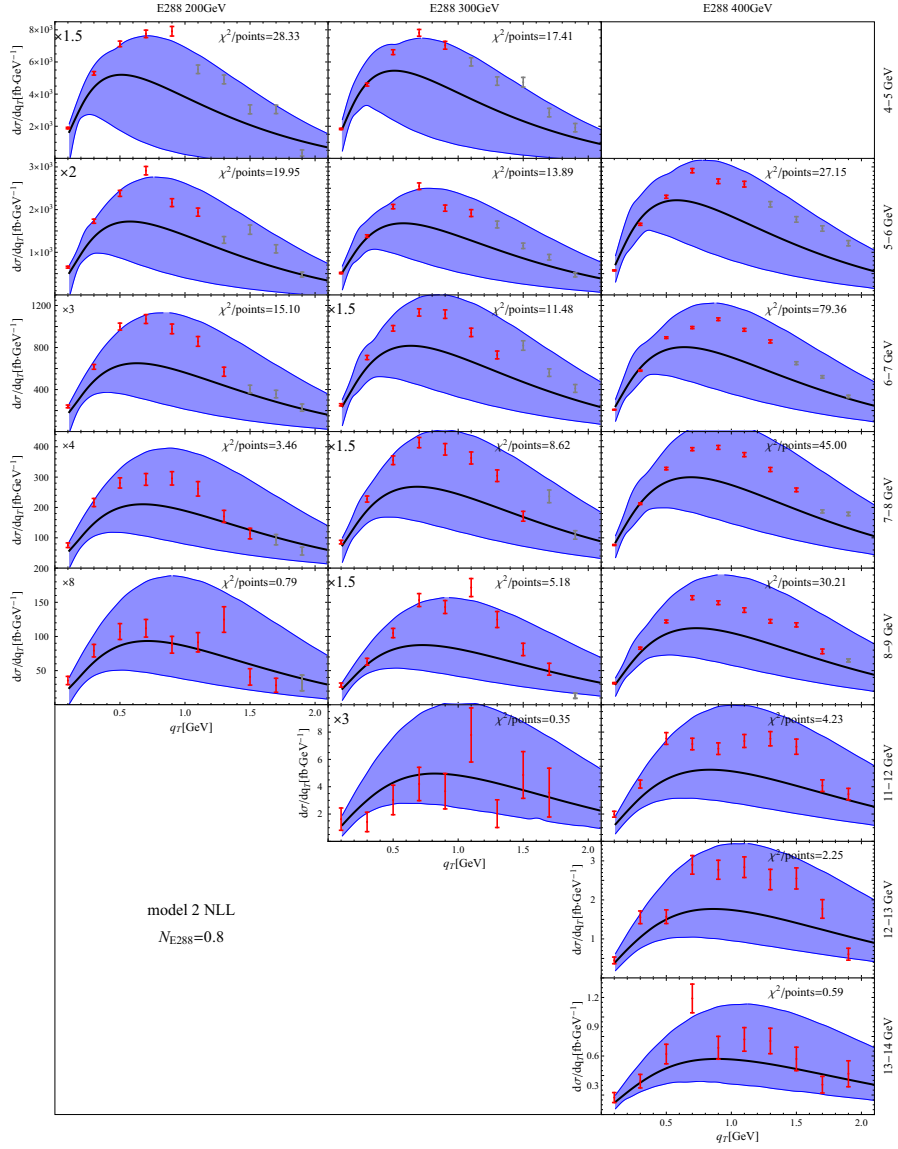


Figure 134: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

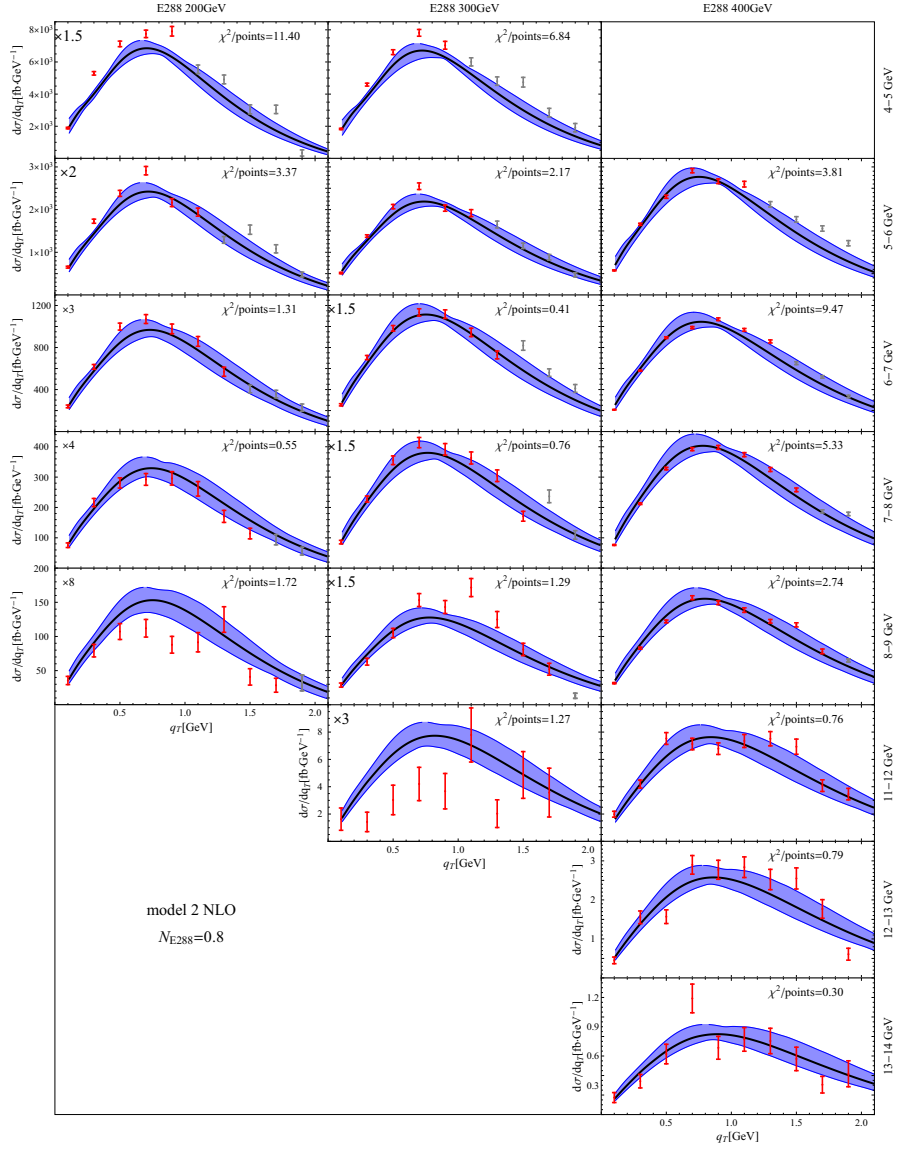


Figure 135: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

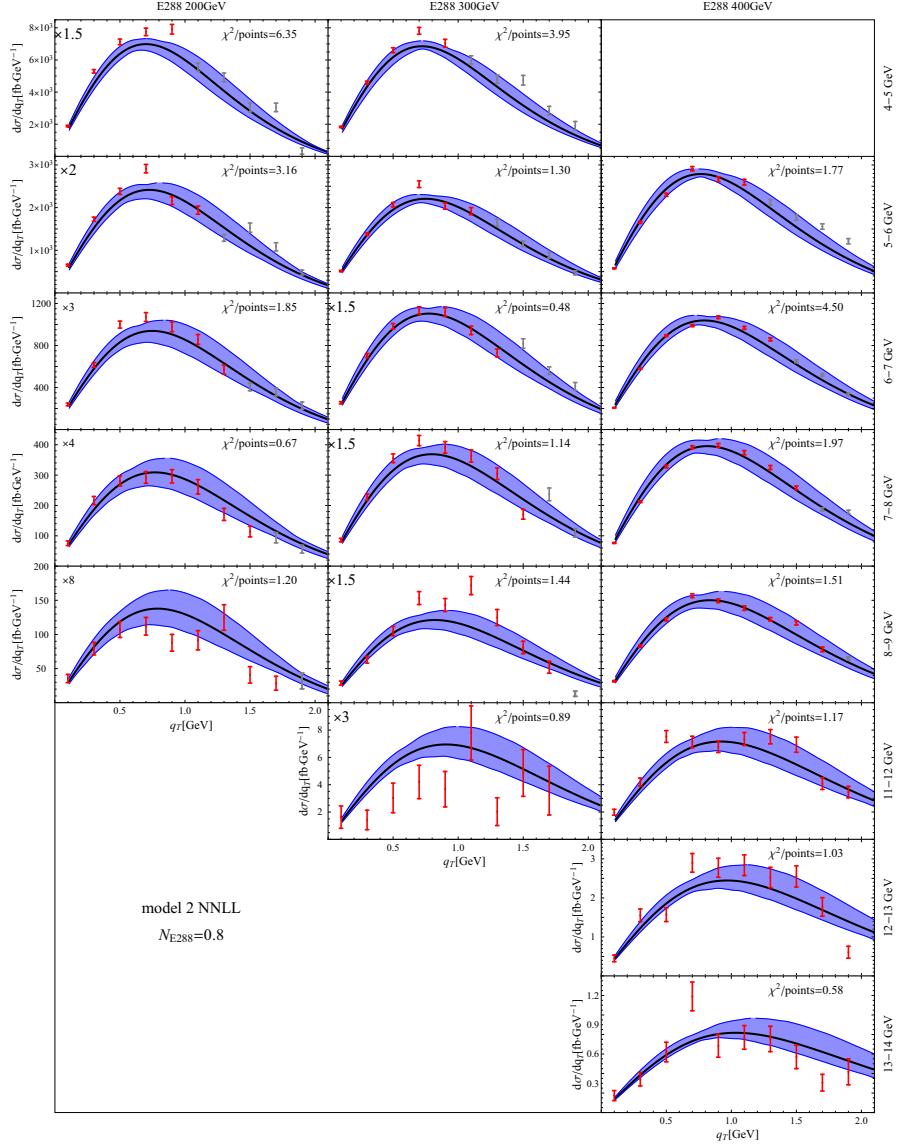


Figure 136: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.

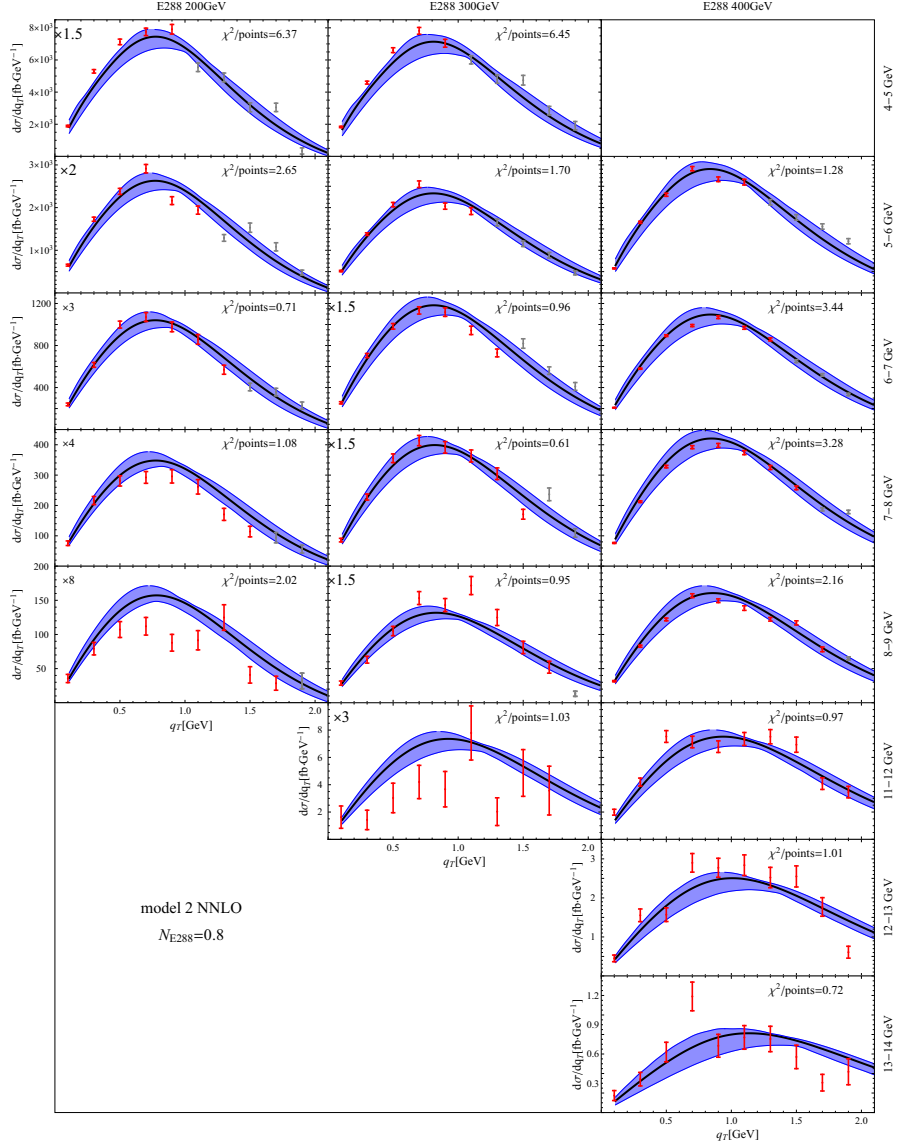


Figure 137: The comparison of the data for Z-boson production collected at Tevatron experiments (run 1 and run 2) to the fit of model 1 at NNLO. Red data points are those which included in the fit (i.e. with  $\delta_T < 0.25$ ). Gray data points are those which are not include in the fit (i.e.  $\delta_T > 0.2$ ). The blue band is the theoretical uncertainty obtained from the variation of scales.