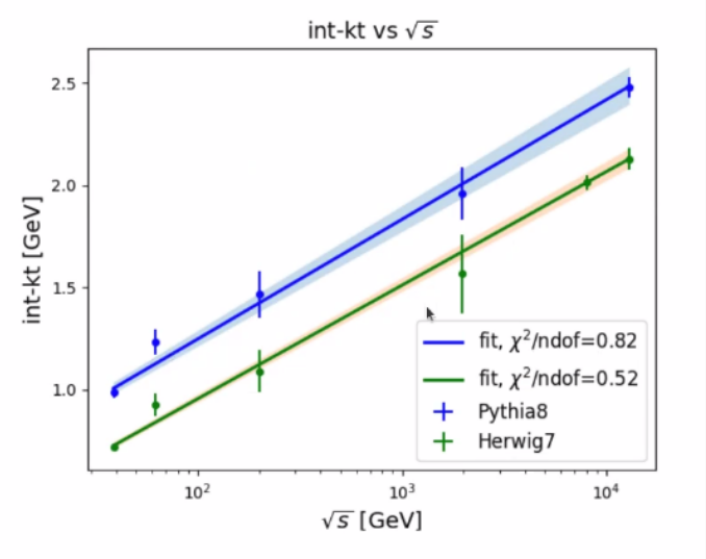
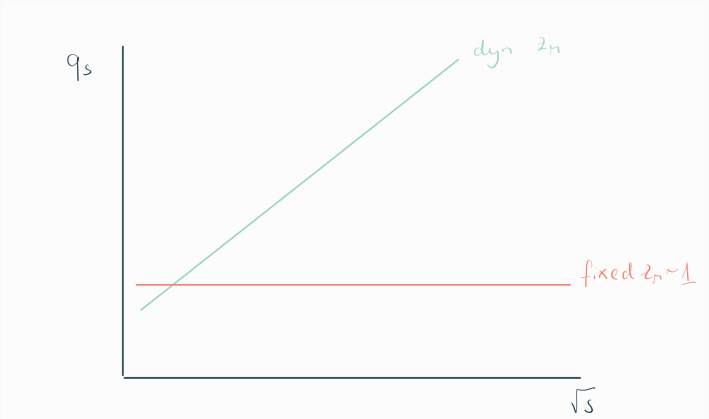
q_s **vs** $\sqrt{S}$

March 2023

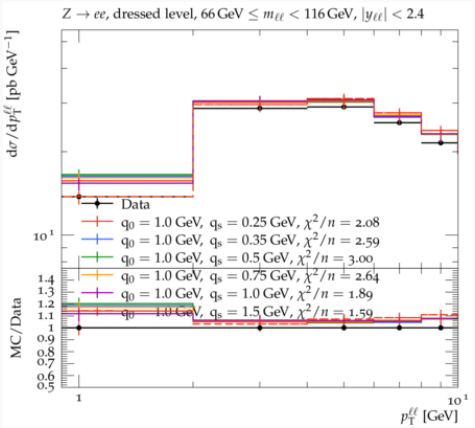
- **Ola**

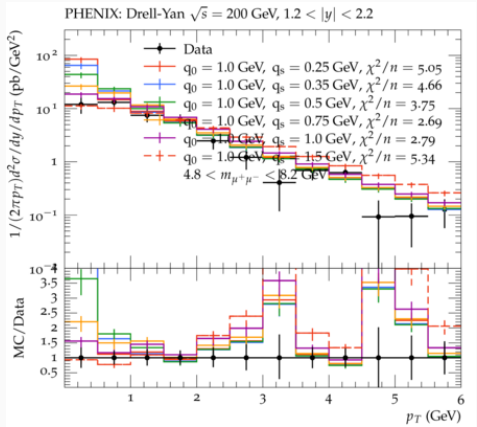

int-kt vs $\sqrt{s}$
int-kt [GeV]
$\sqrt{s}$ [GeV]
2.5
2.0
1.5
1.0
10^2
10^3
10^4
fit, χ^2/ndof=0.82
fit, χ^2/ndof=0.52
Pythia8
Herwig7

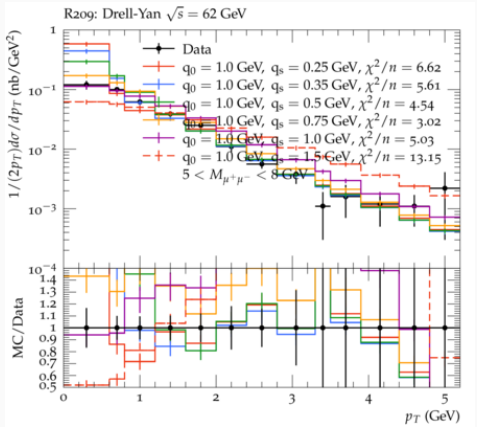

q_s
dyn z_n
fixed $z_n \sim 1$
$\sqrt{s}$

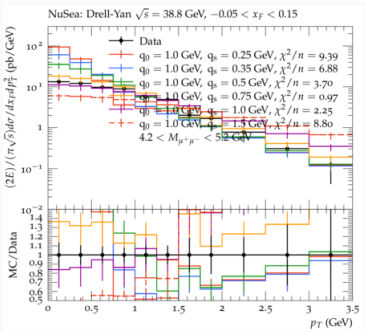
μ_f and μ_r variation included in χ^2 calculation

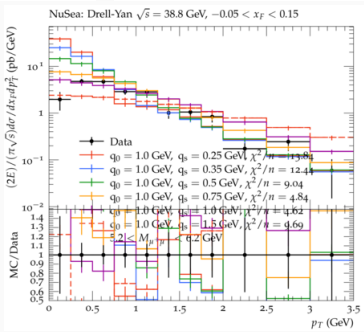
$q_0 = 1.0$ GeV, all q_s

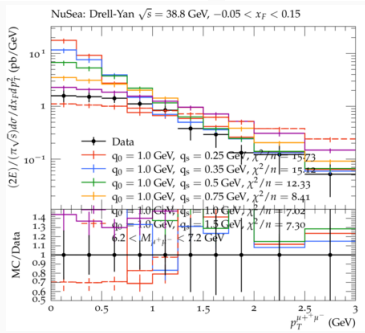


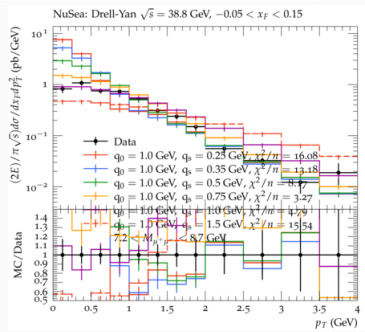


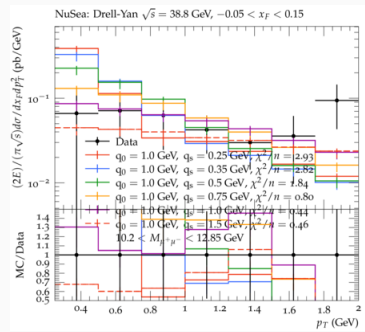


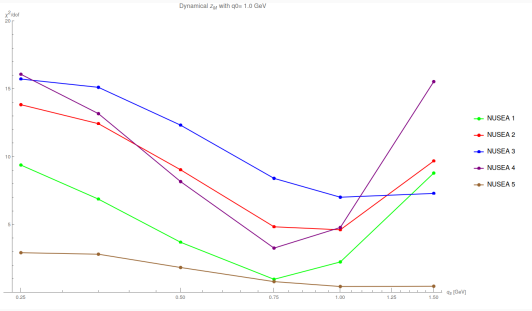


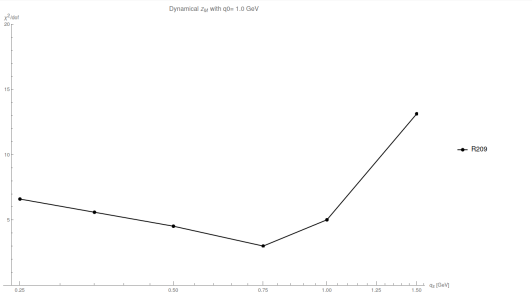


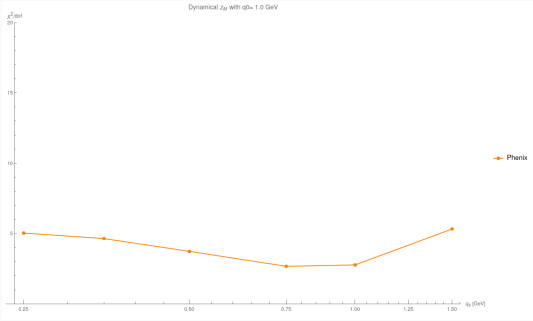


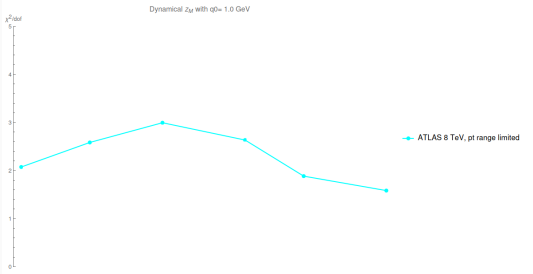








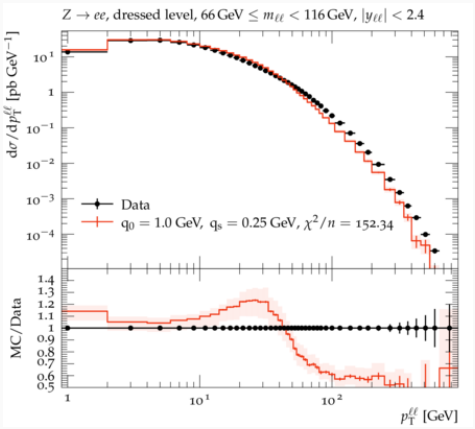


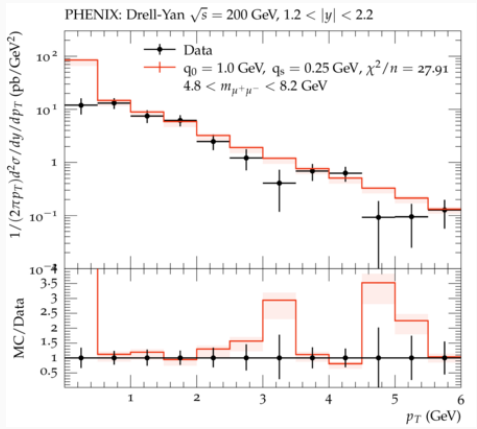


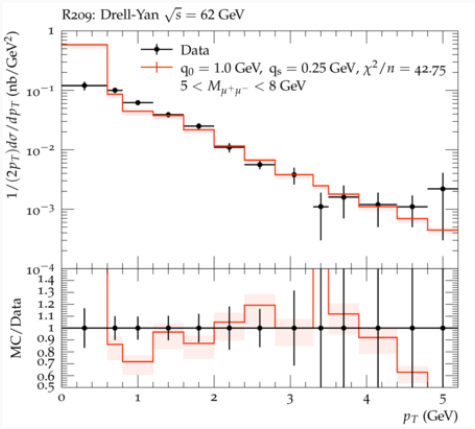
MuR and MuF variation in the chi2 calculation							
	0.25	0.35	0.5	0.75	1	1.5	2
NUSEA 1	9.39	6.88	3.7	0.97	2.25	8.8	
NUSEA 2	13.84	12.44	9.04	4.84	4.62	9.69	
NUSEA 3	15.73	15.12	12.33	8.41	7.02	7.3	
NUSEA 4	16.08	13.18	8.17	3.27	4.79	15.54	
NUSEA 5	2.93	2.82	1.84	0.8	0.44	0.46	
R209	6.62	5.61	4.54	3.02	5.03	13.15	
Phenix	5.05	4.66	3.75	2.69	2.79	5.34	
ATLAS 8 TeV	2.08	2.59	3	2.64	1.89	1.59	

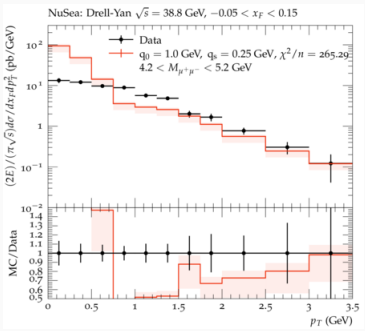
Backup

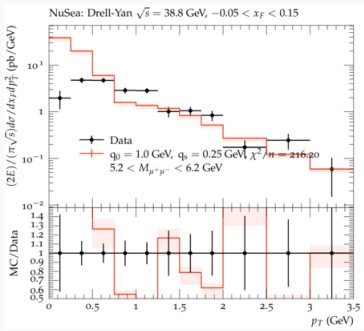
$q_0 = 1.0\ \mathbf{GeV},\ q_s = 0.25\ \mathbf{GeV}$

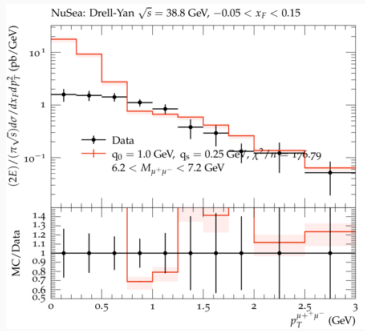


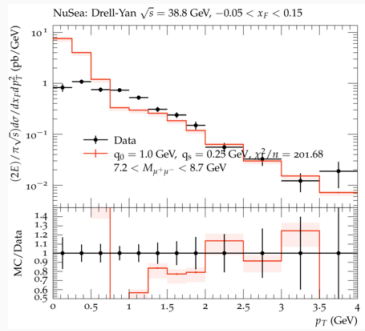


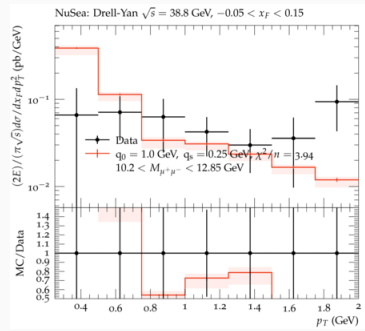




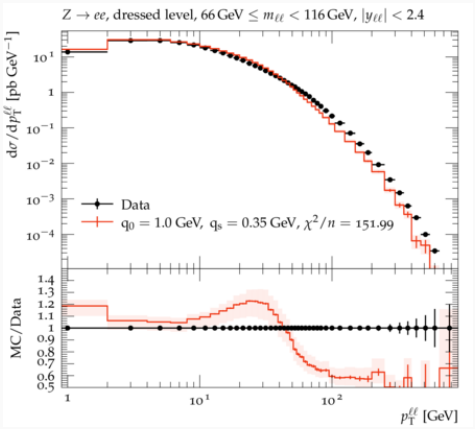


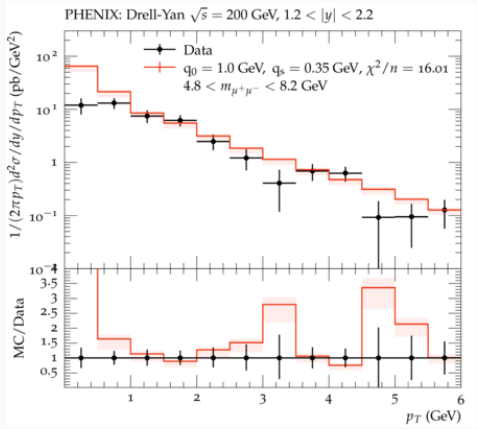


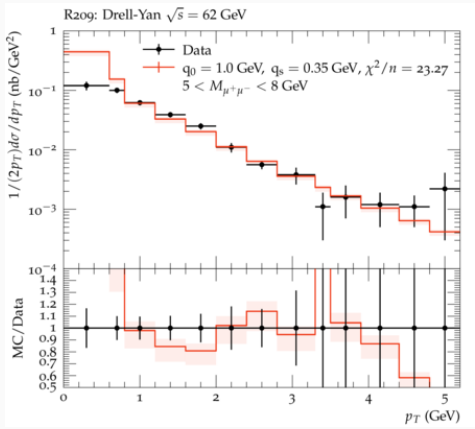


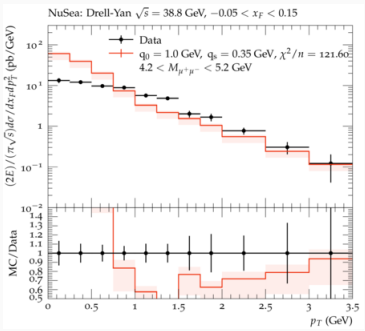


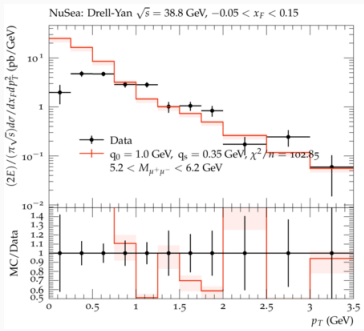
$q_0 = 1.0\ \mathbf{GeV},\ q_s = 0.35\ \mathbf{GeV}$

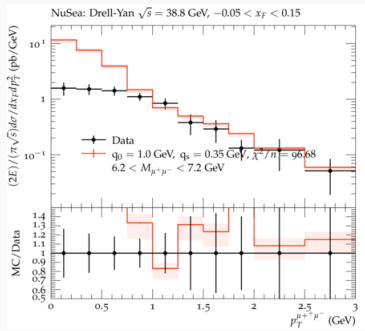


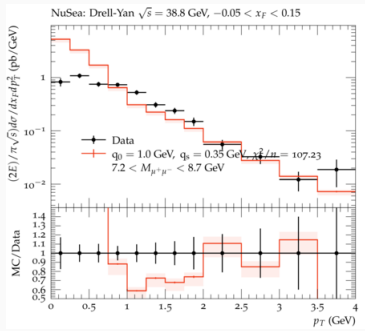


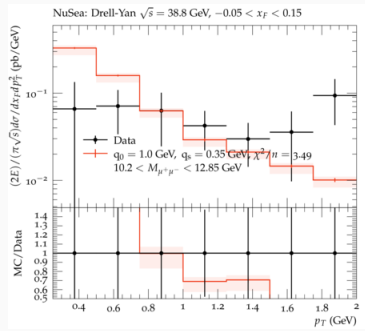












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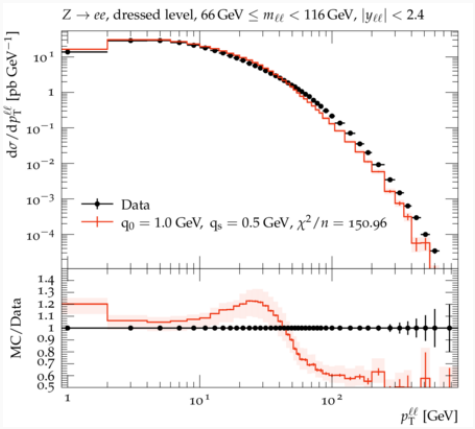
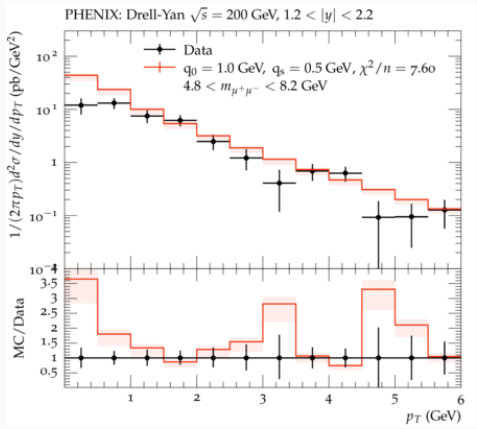
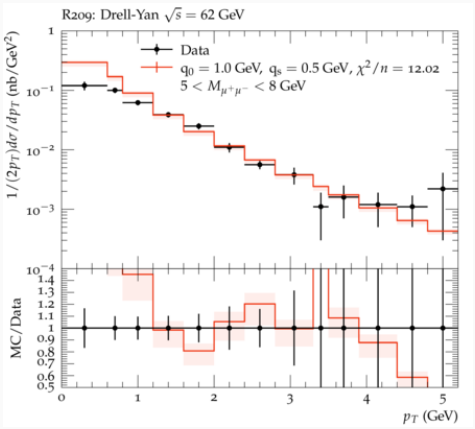
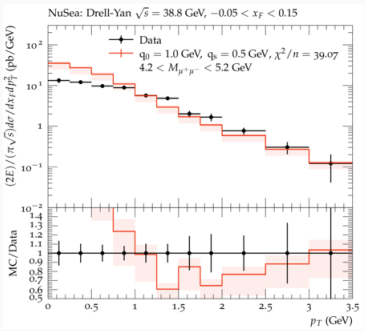
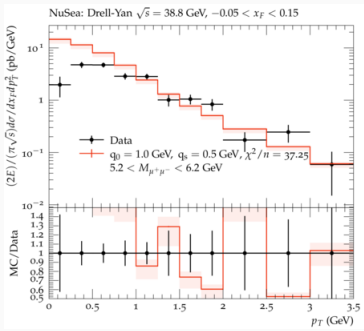
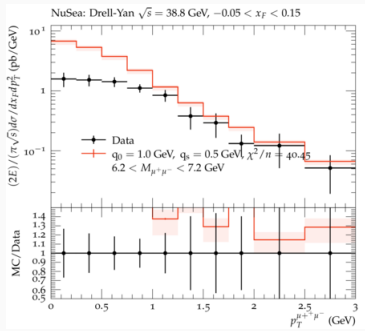


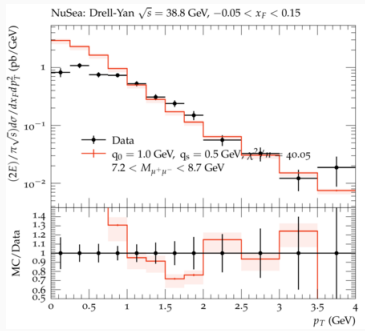


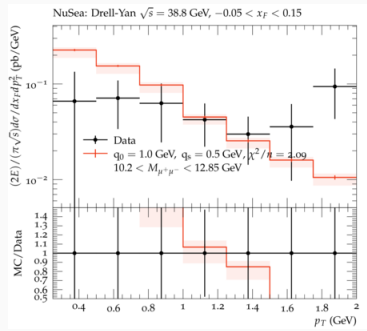




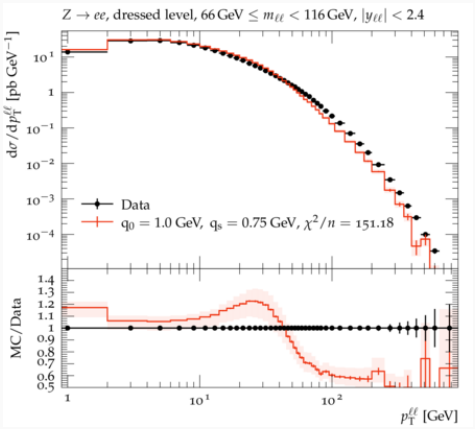


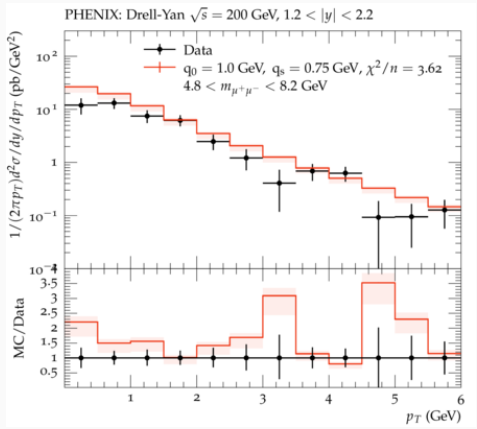


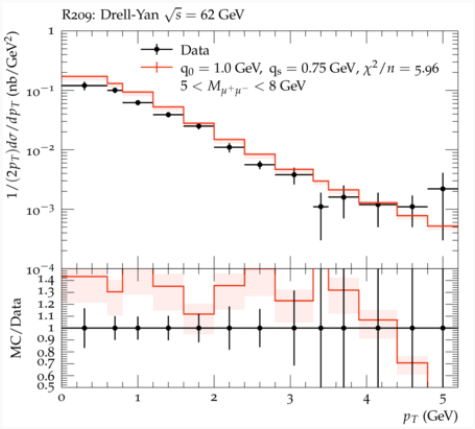


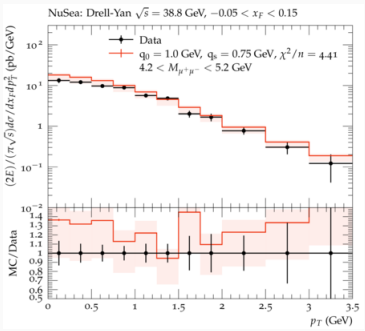


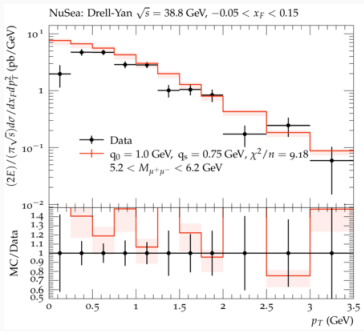
$q_0 = 1.0\ \mathbf{GeV},\ q_s = 0.75\ \mathbf{GeV}$

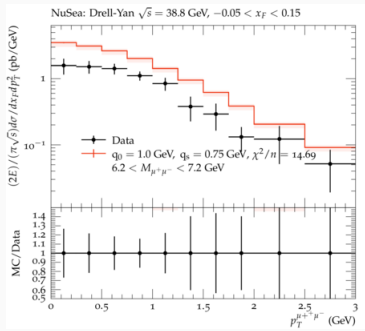


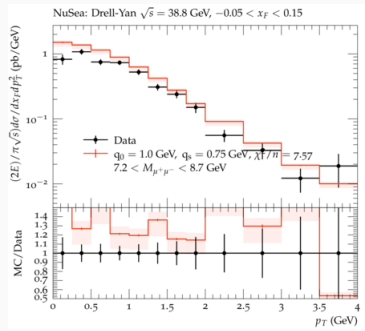


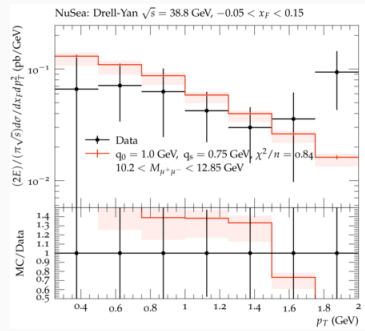




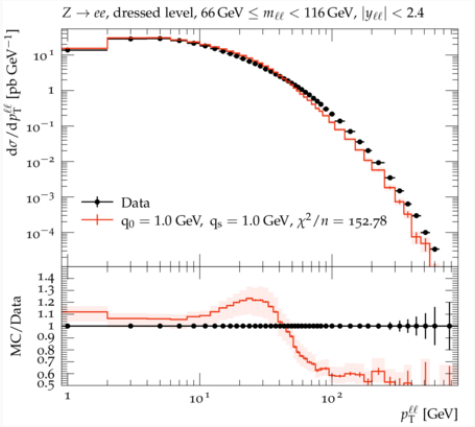


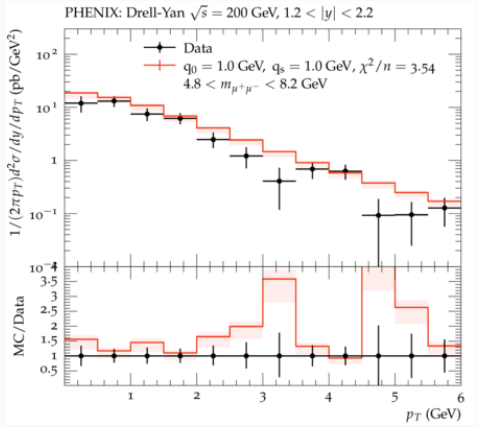


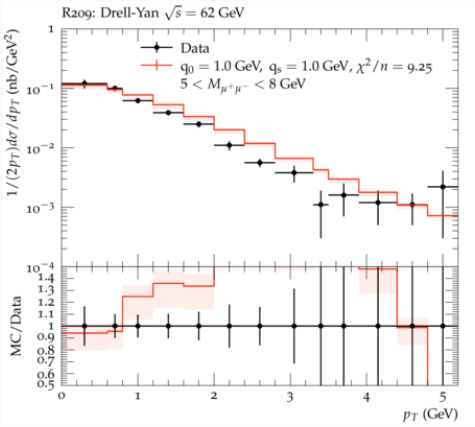


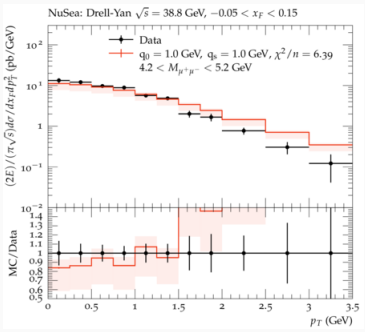


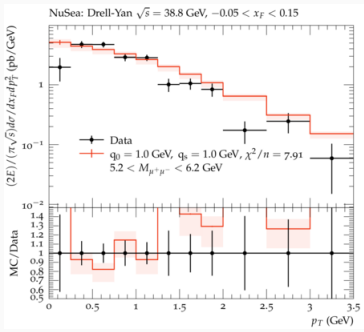
$q_0 = 1.0\ \mathbf{GeV},\ q_s = 1.0\ \mathbf{GeV}$

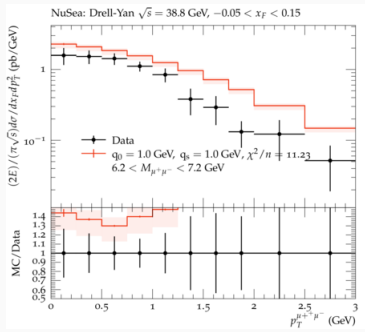


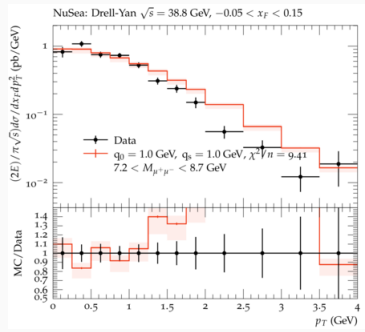


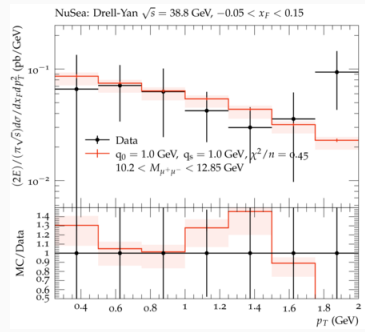
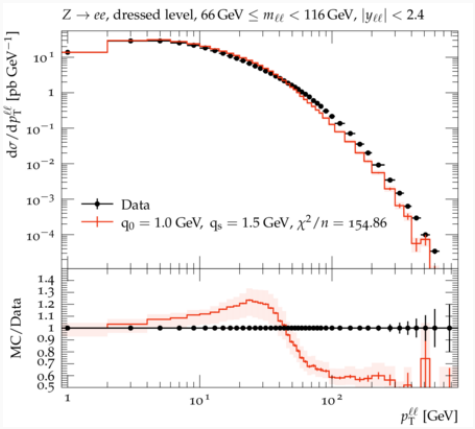
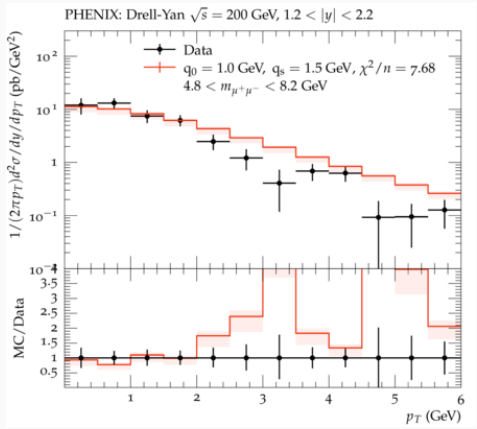
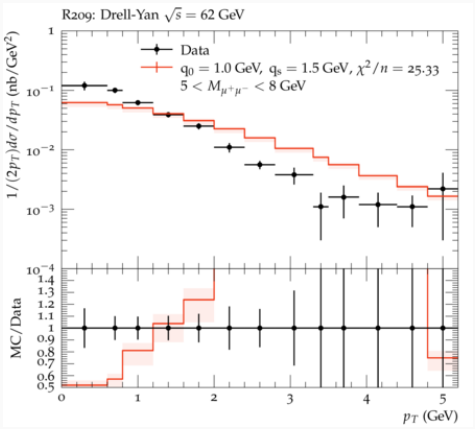
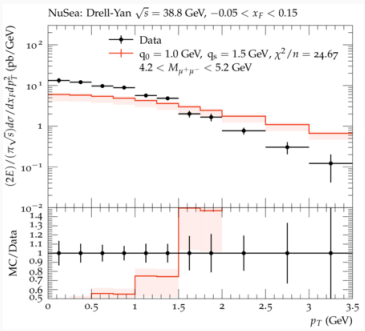
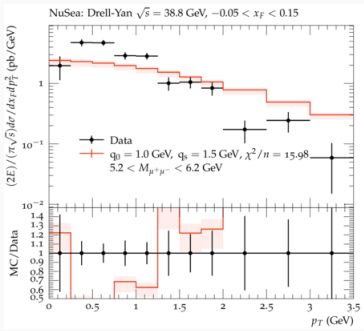
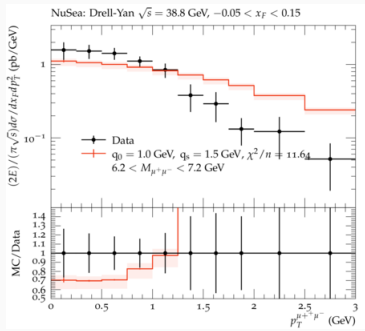
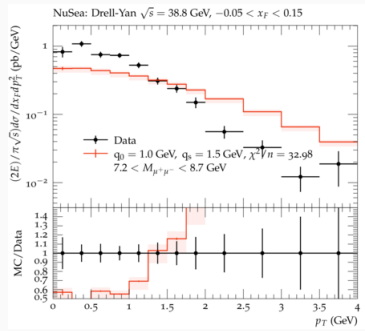
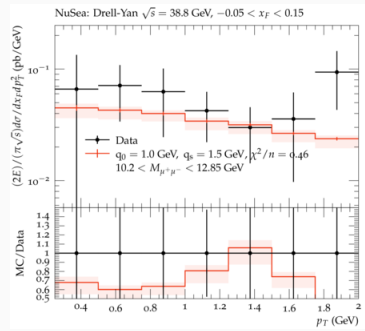












$q_0 = 1.0\ \mathbf{GeV},\ q_s = 1.5\ \mathbf{GeV}$