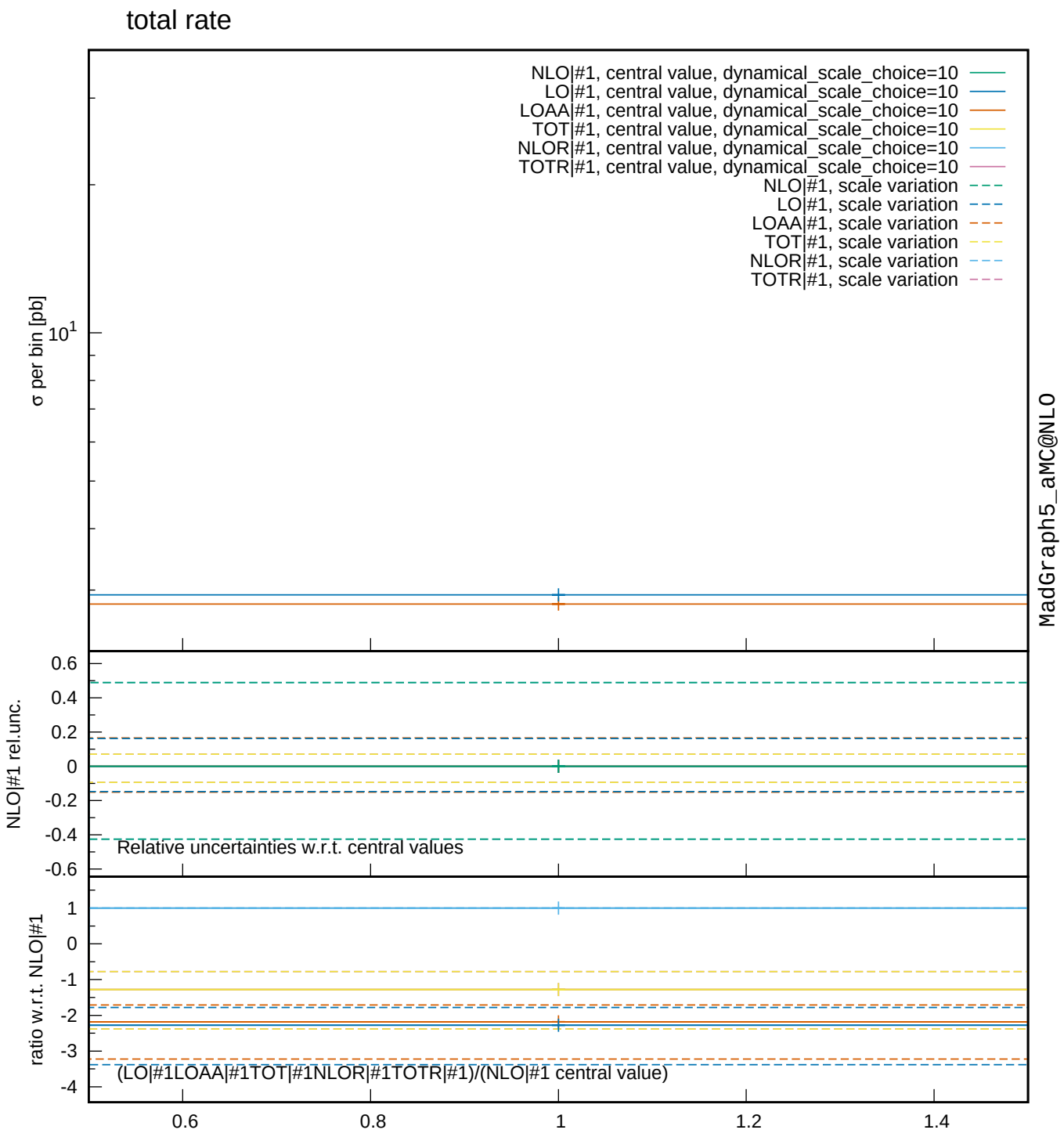
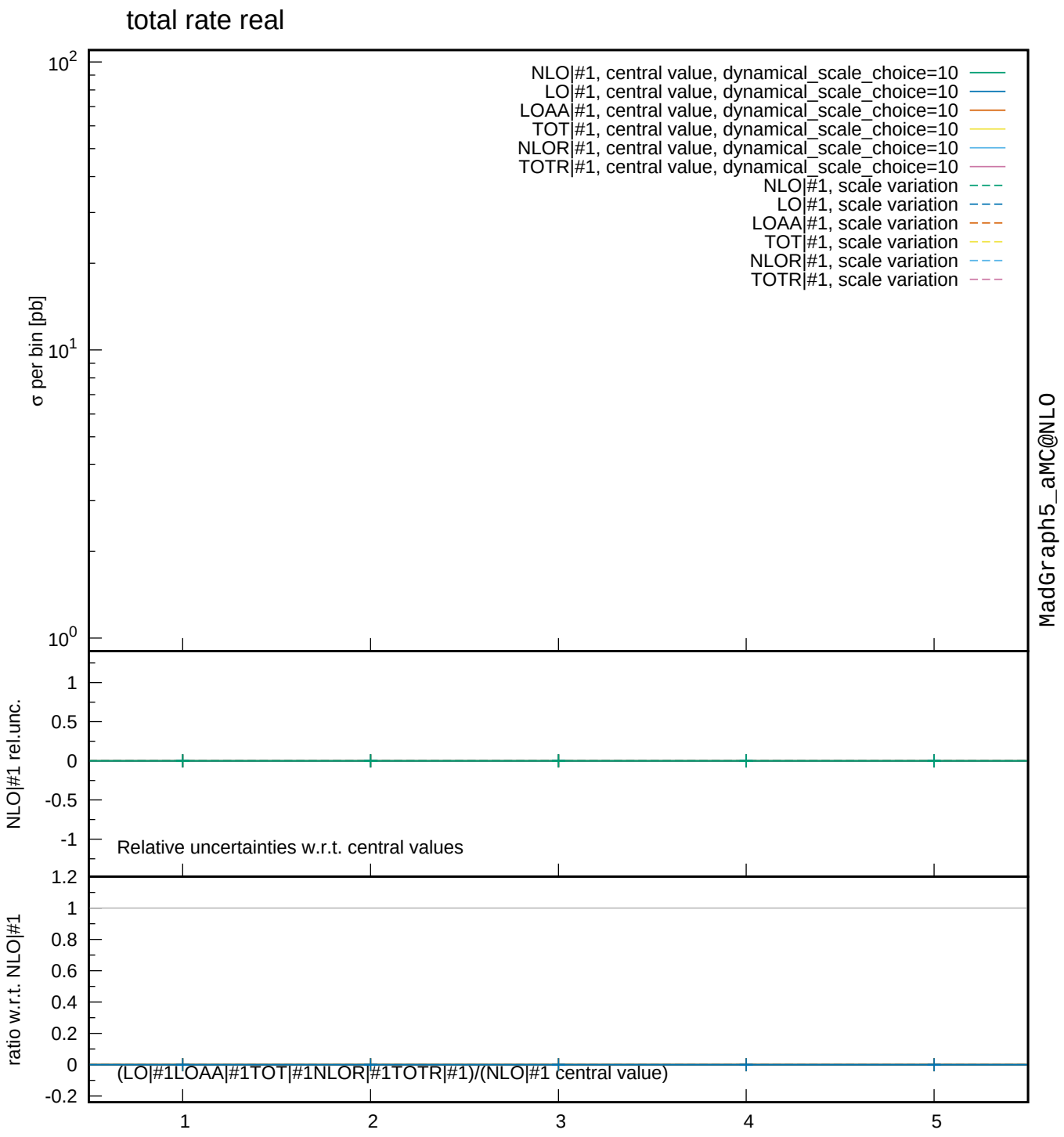
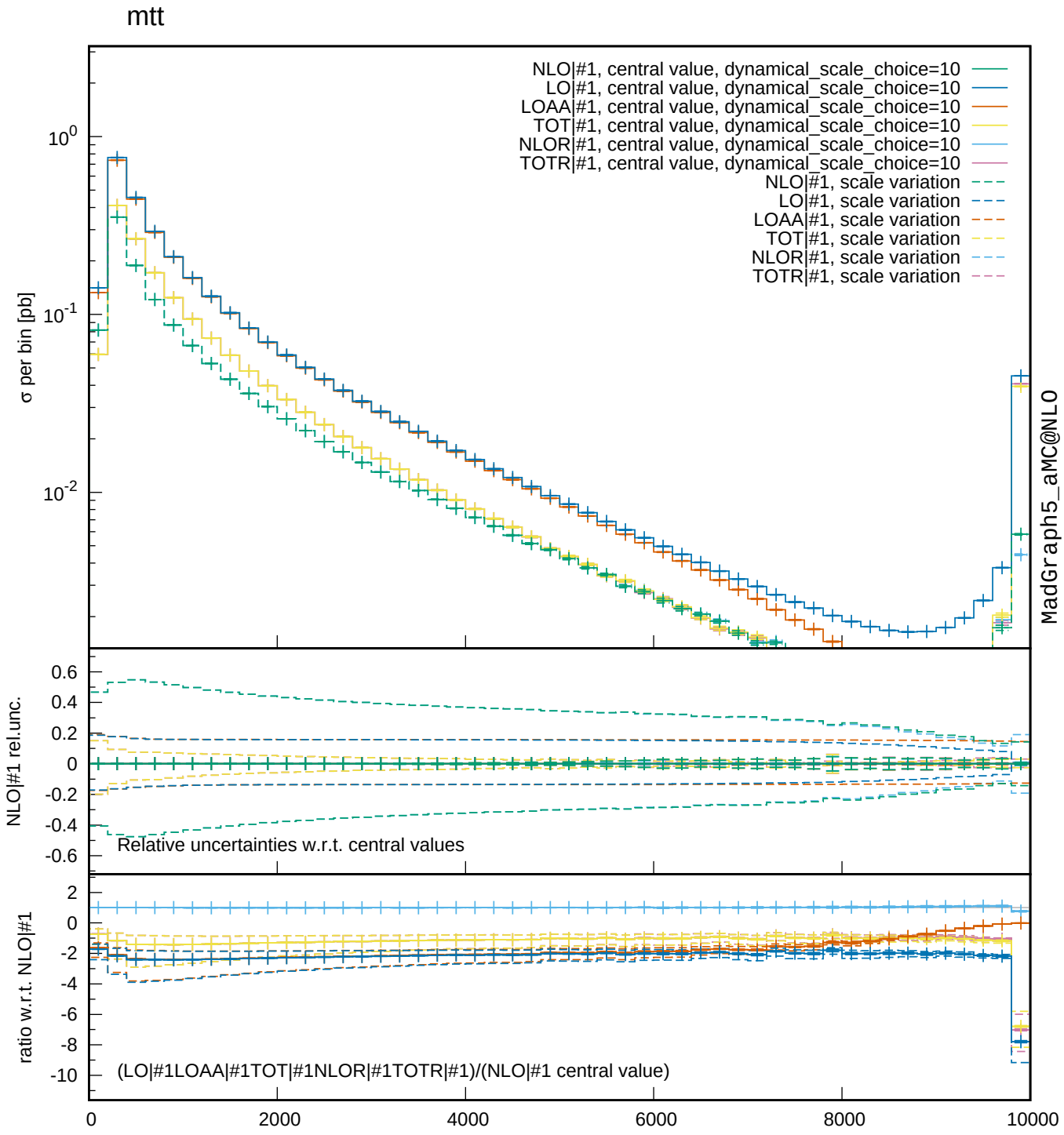
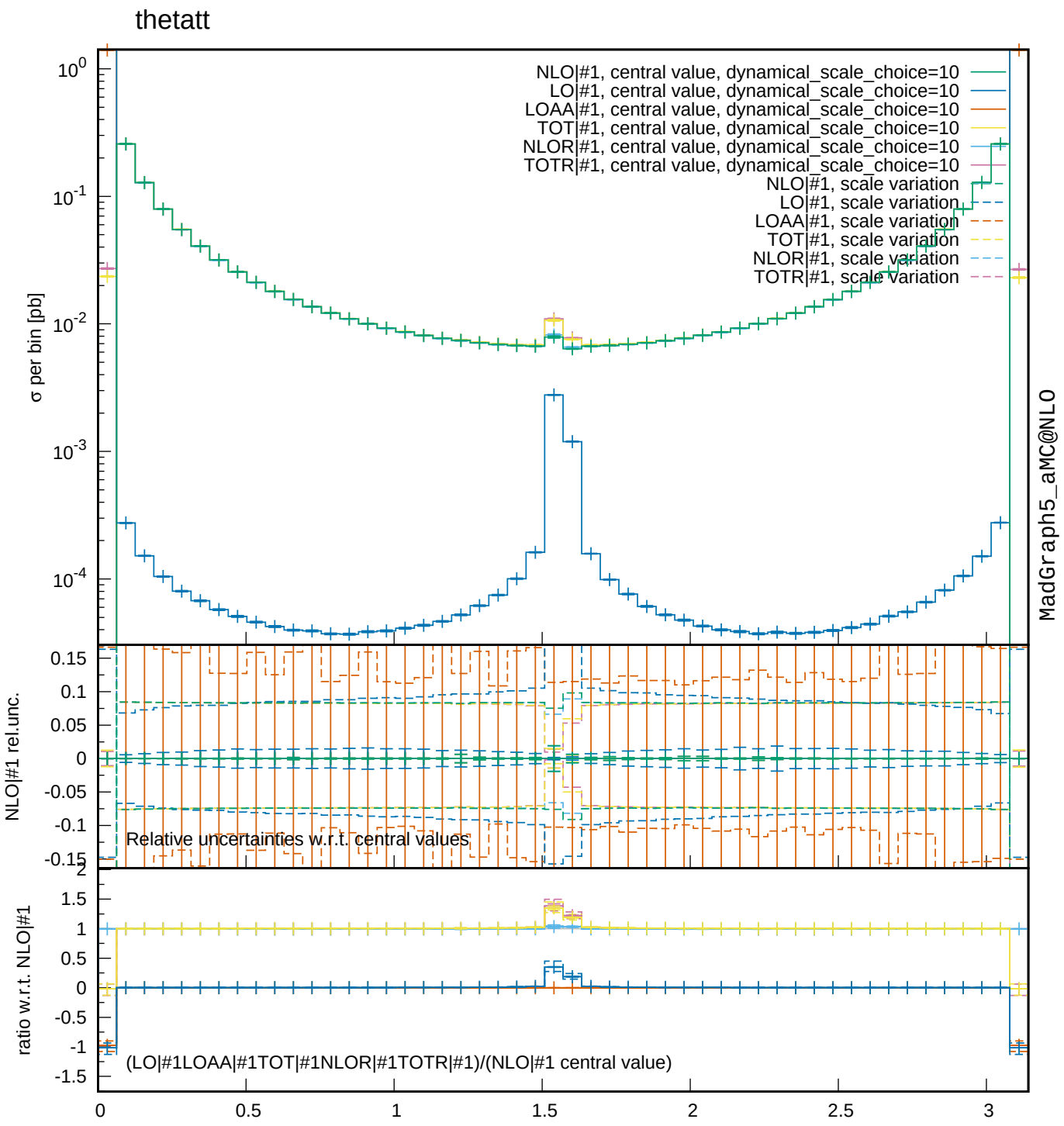
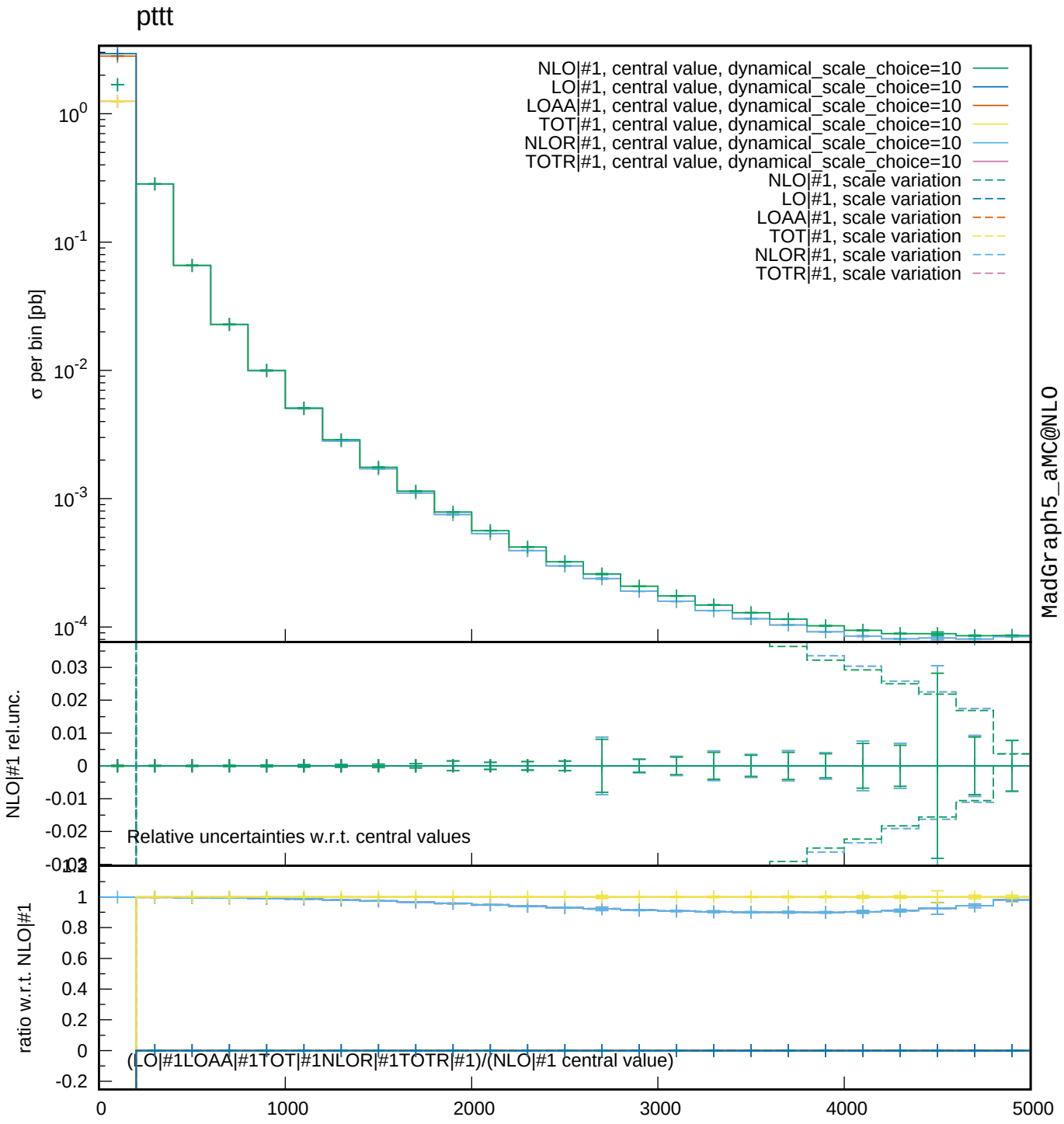
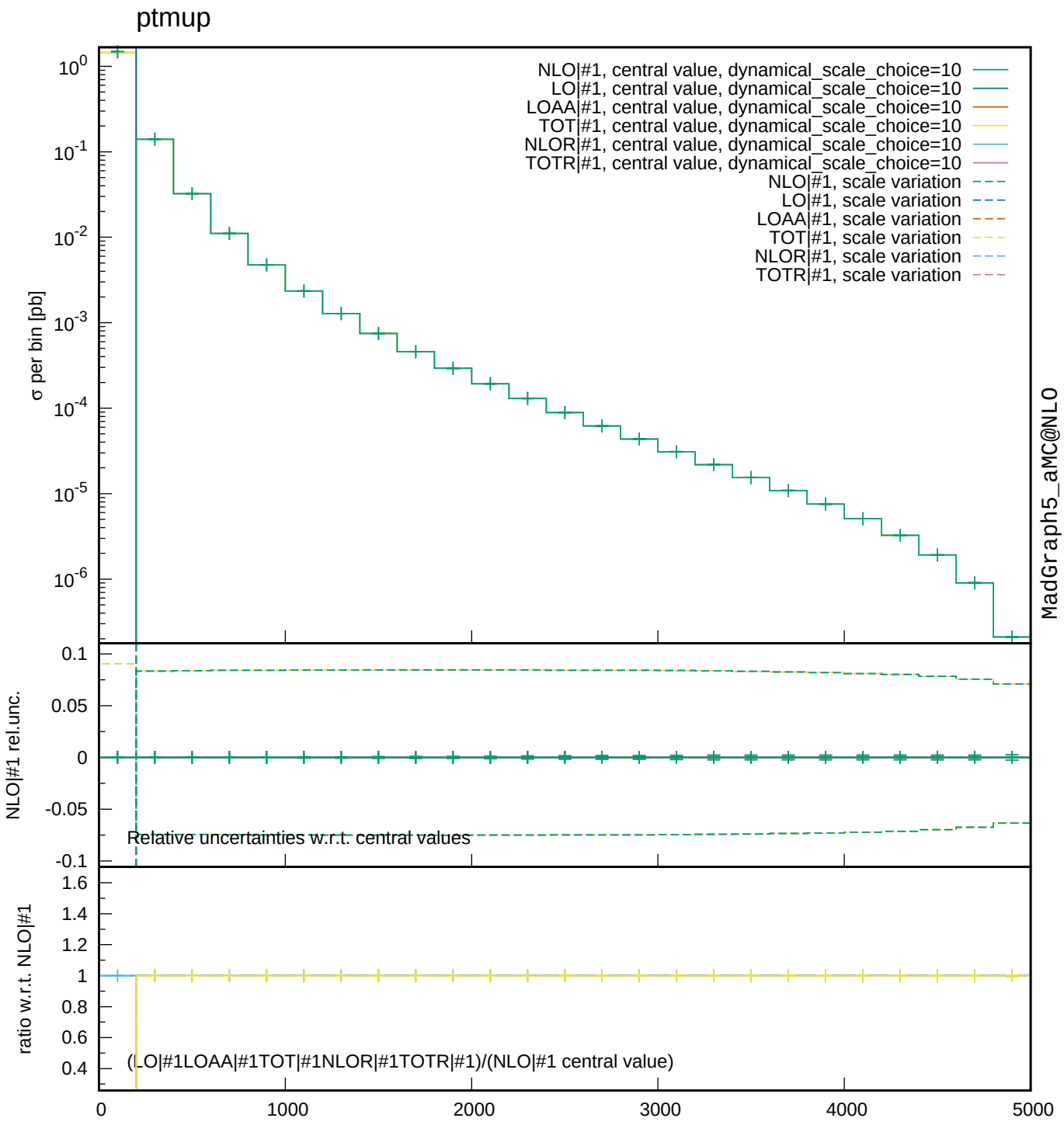

total rate
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
10^1
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1
0
-1
-2
-3
-4
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
0.6
0.8
1
1.2
1.4

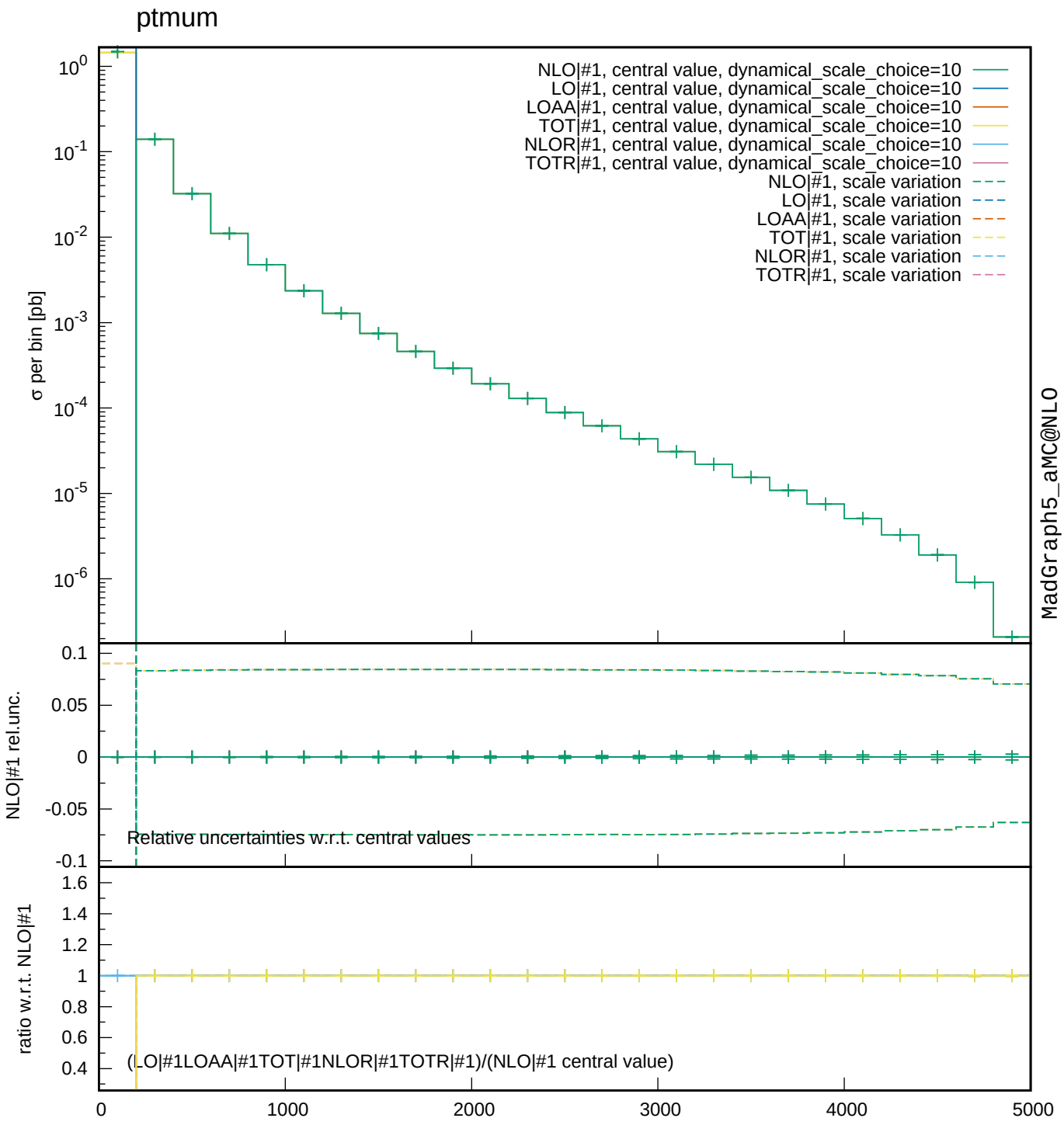

total rate real
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO

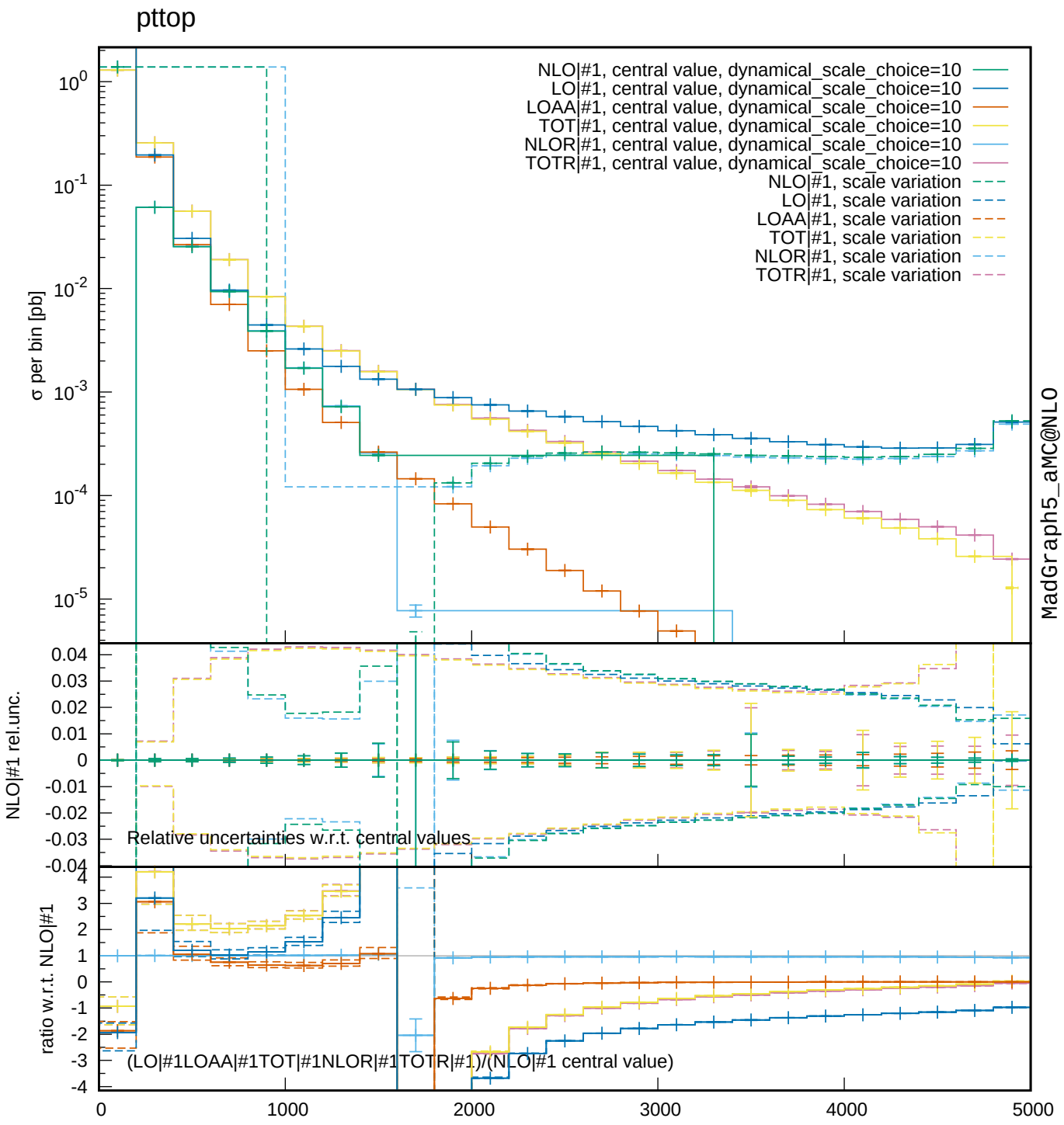

mtt
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

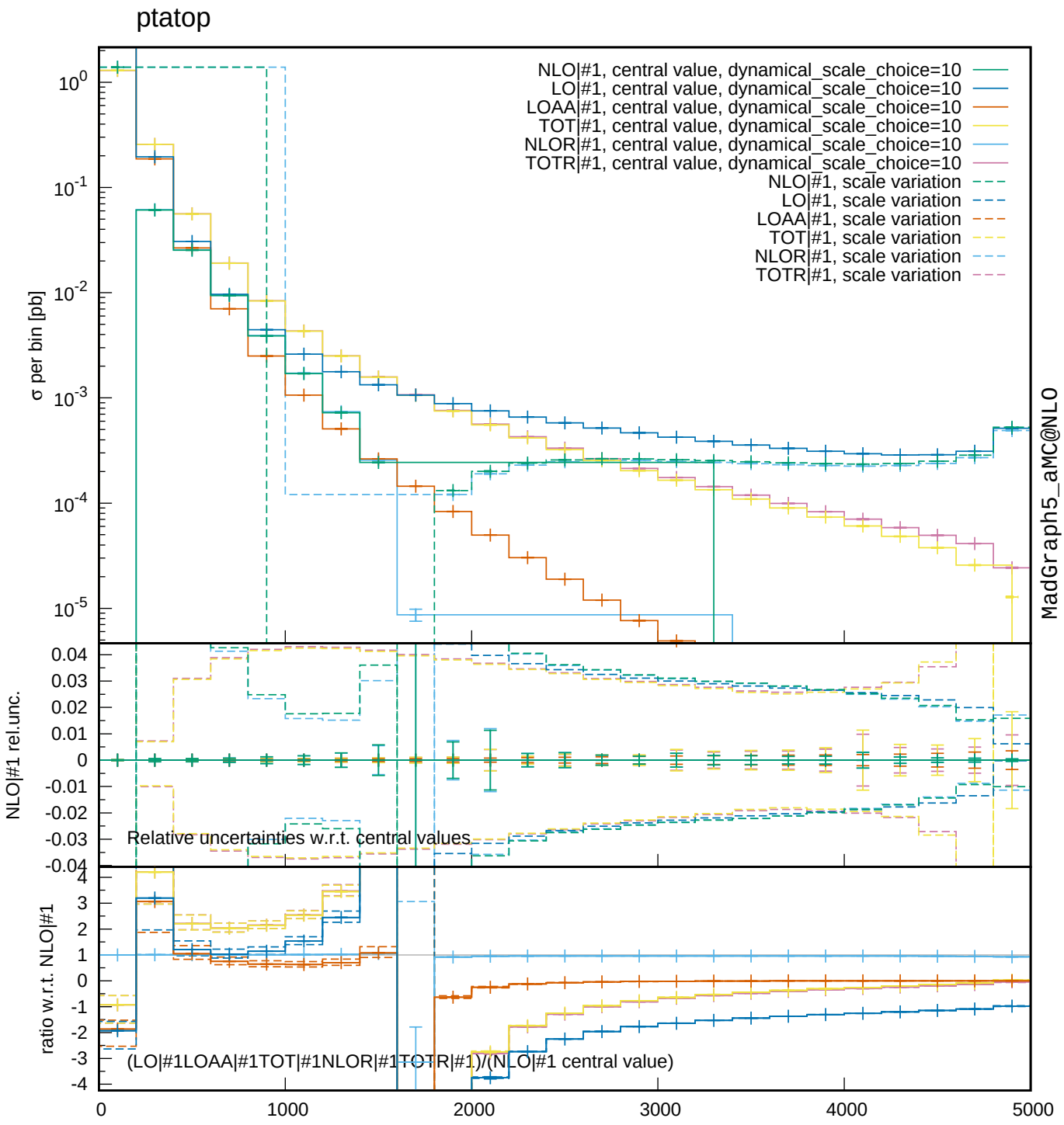

thetatt
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO

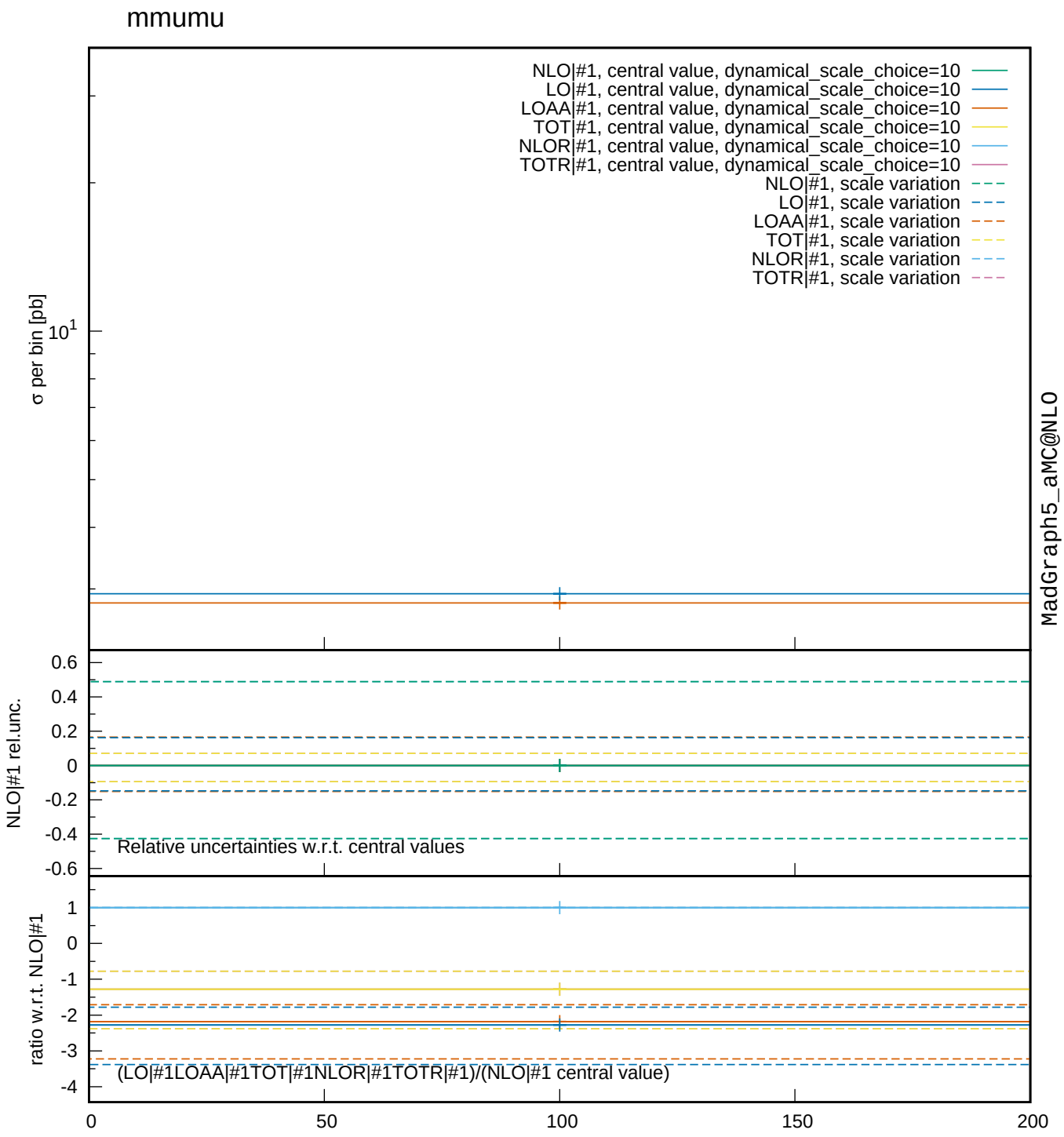

pttt
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

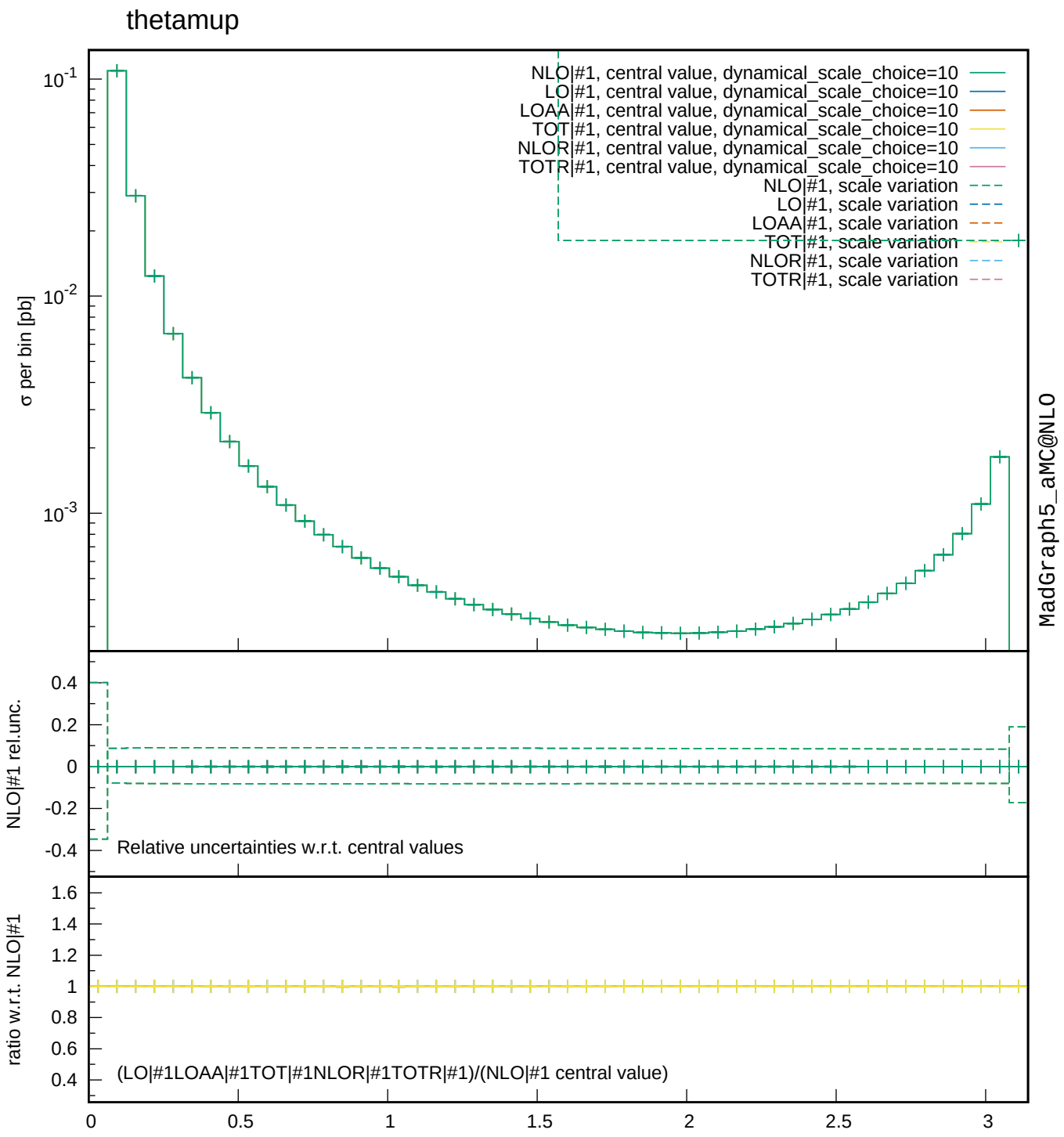

ptmup
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

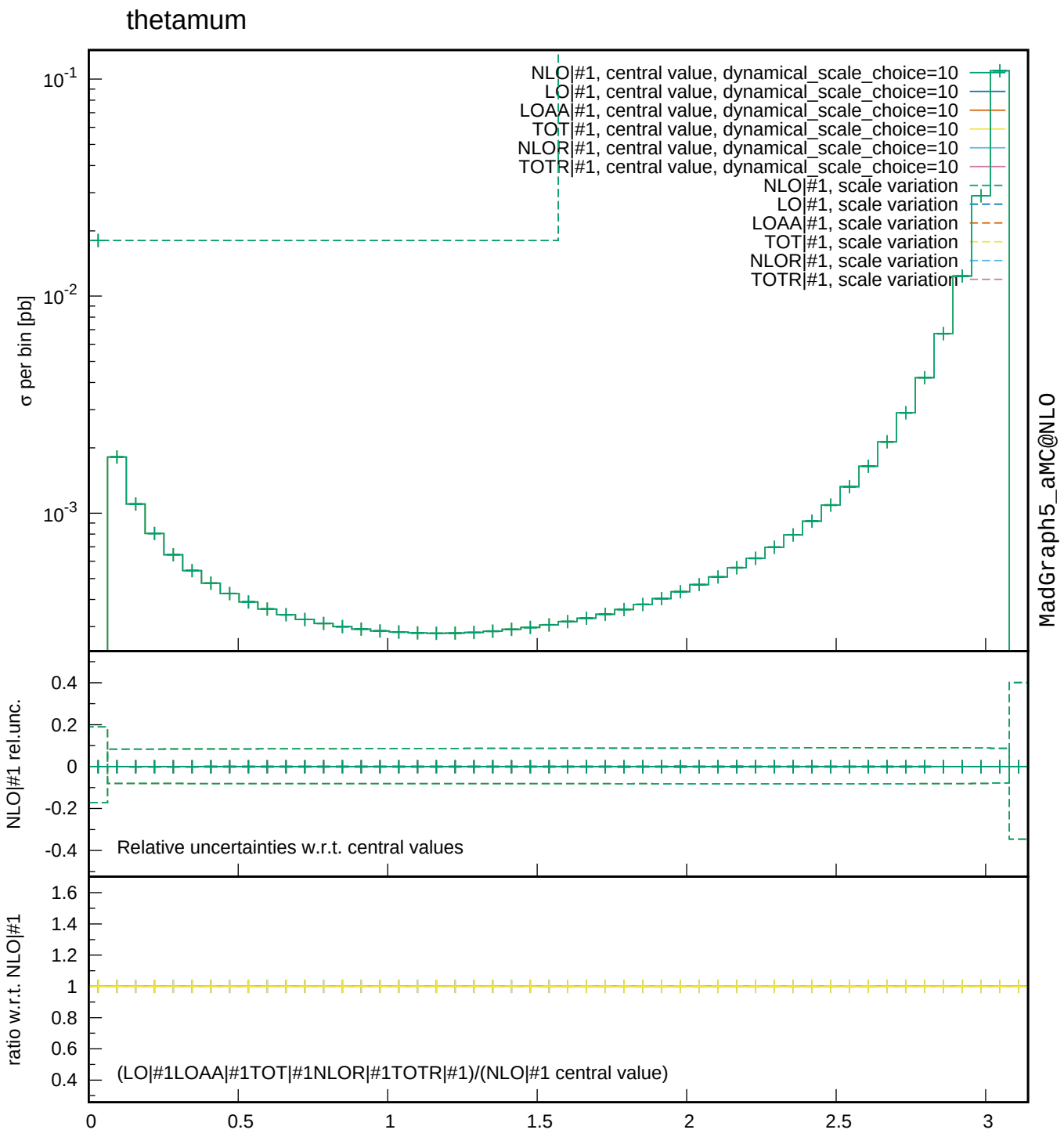

ptmum
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

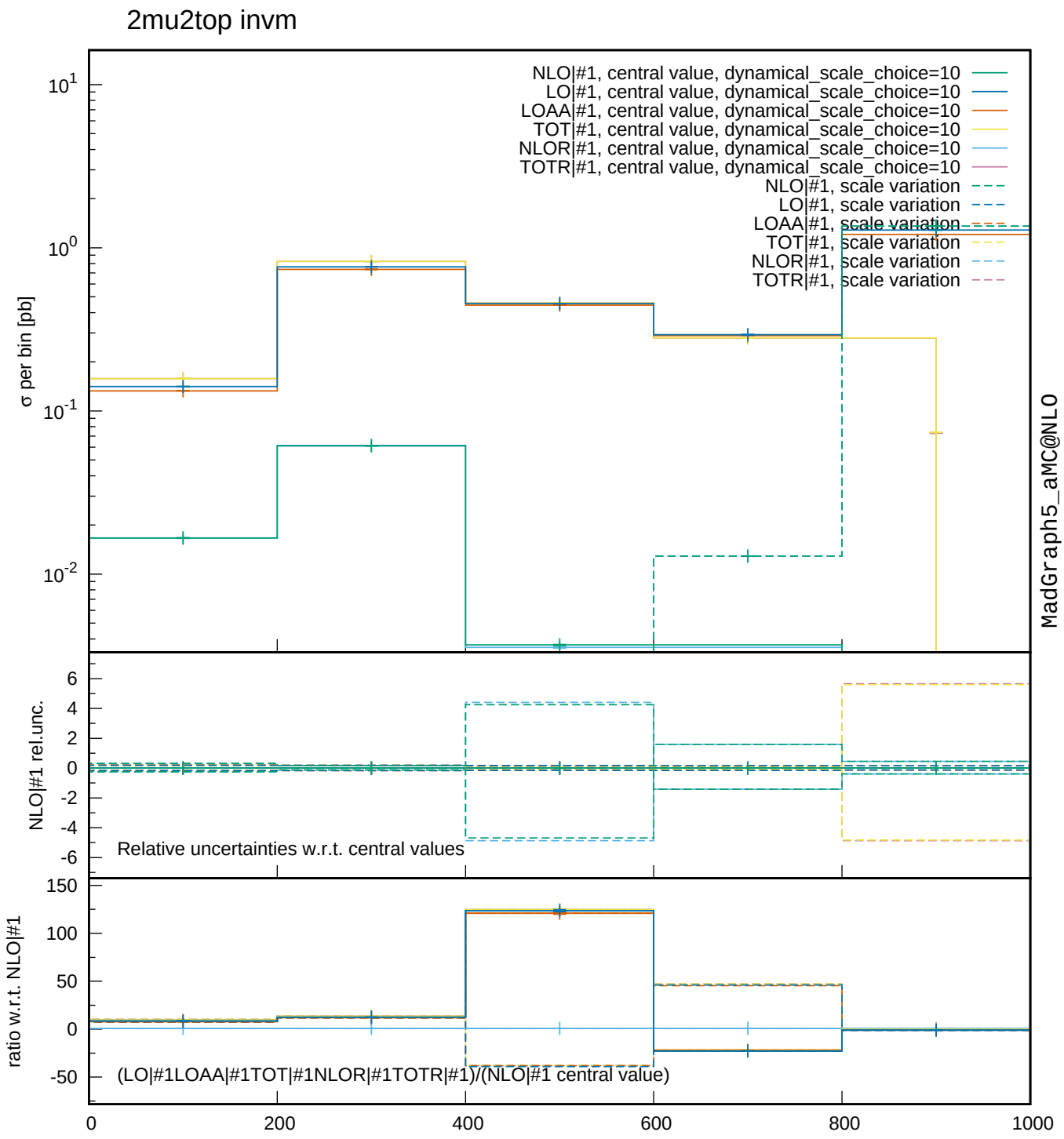

pttop
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

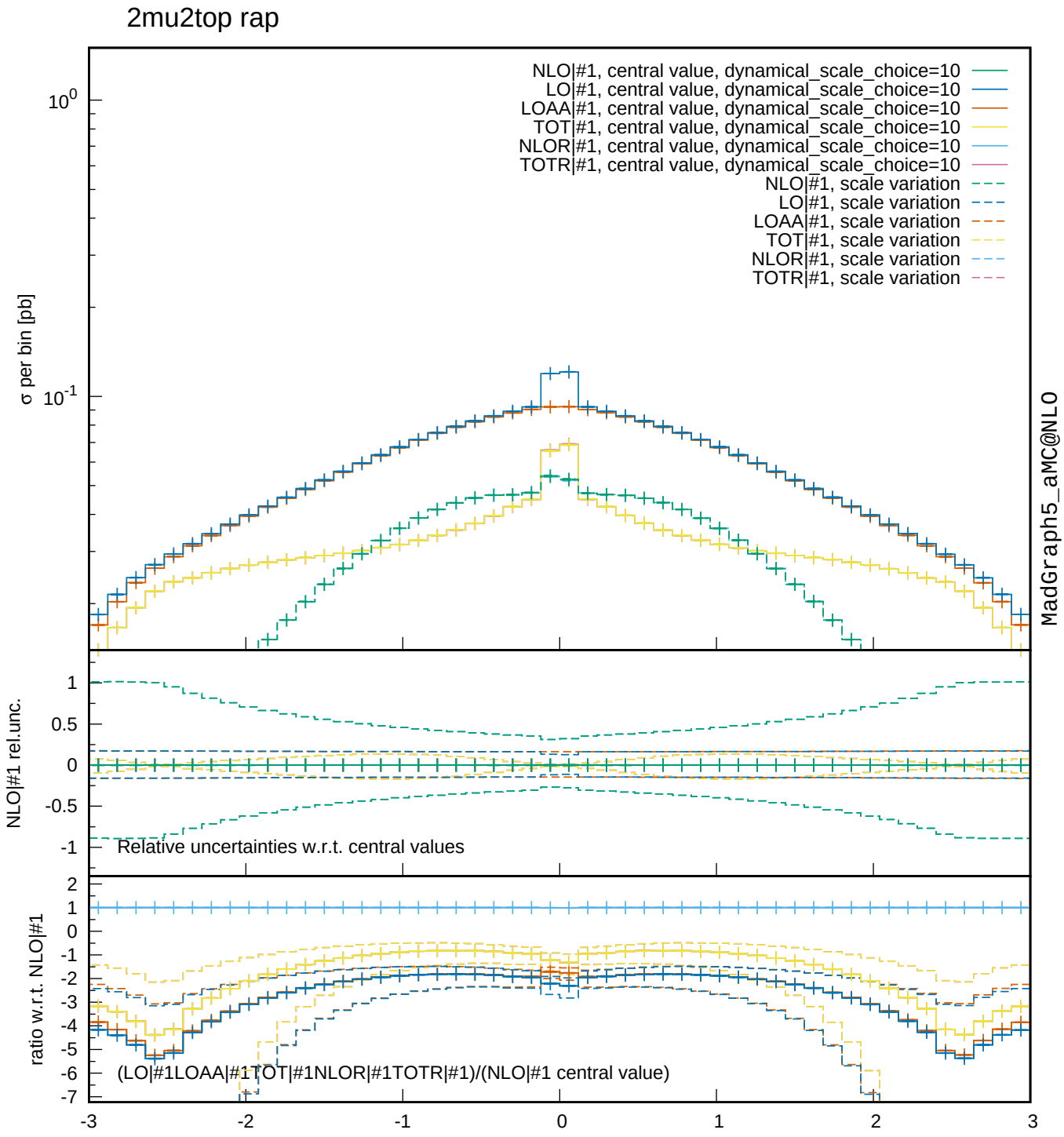

ptatop
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

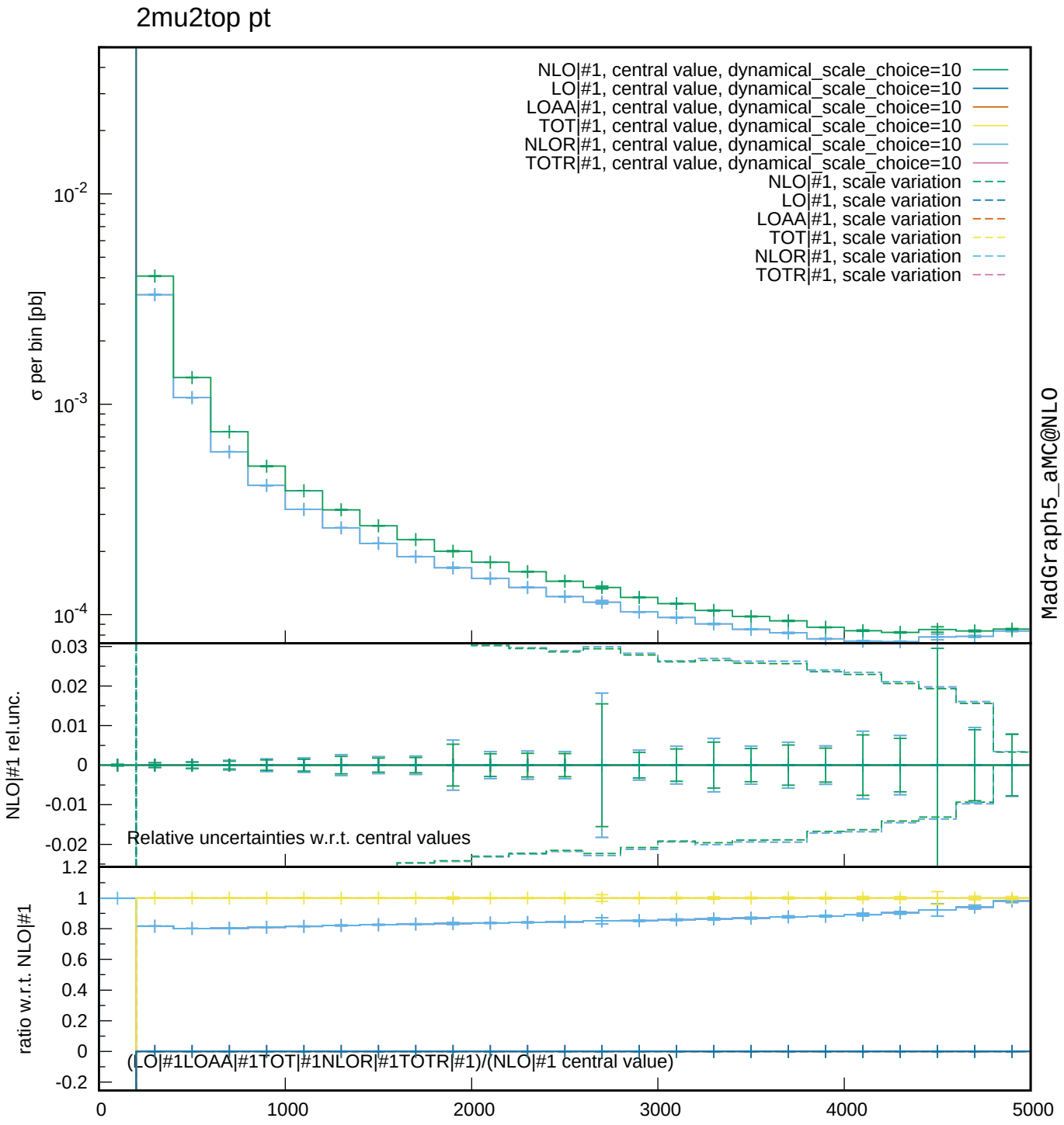

mmumu
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
10^1
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1
0
-1
-2
-3
-4
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
0
50
100
150
200

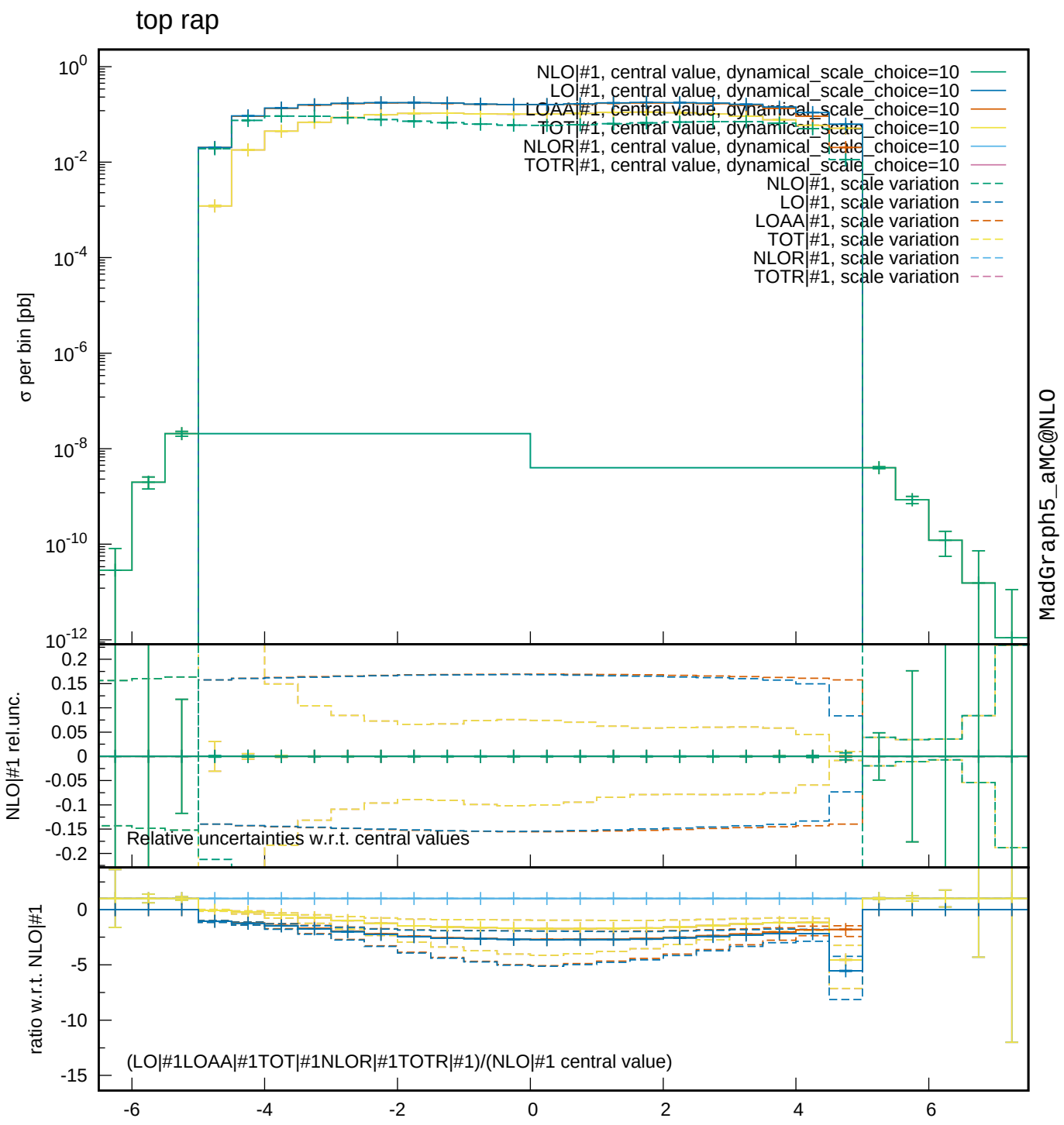

thetamup
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

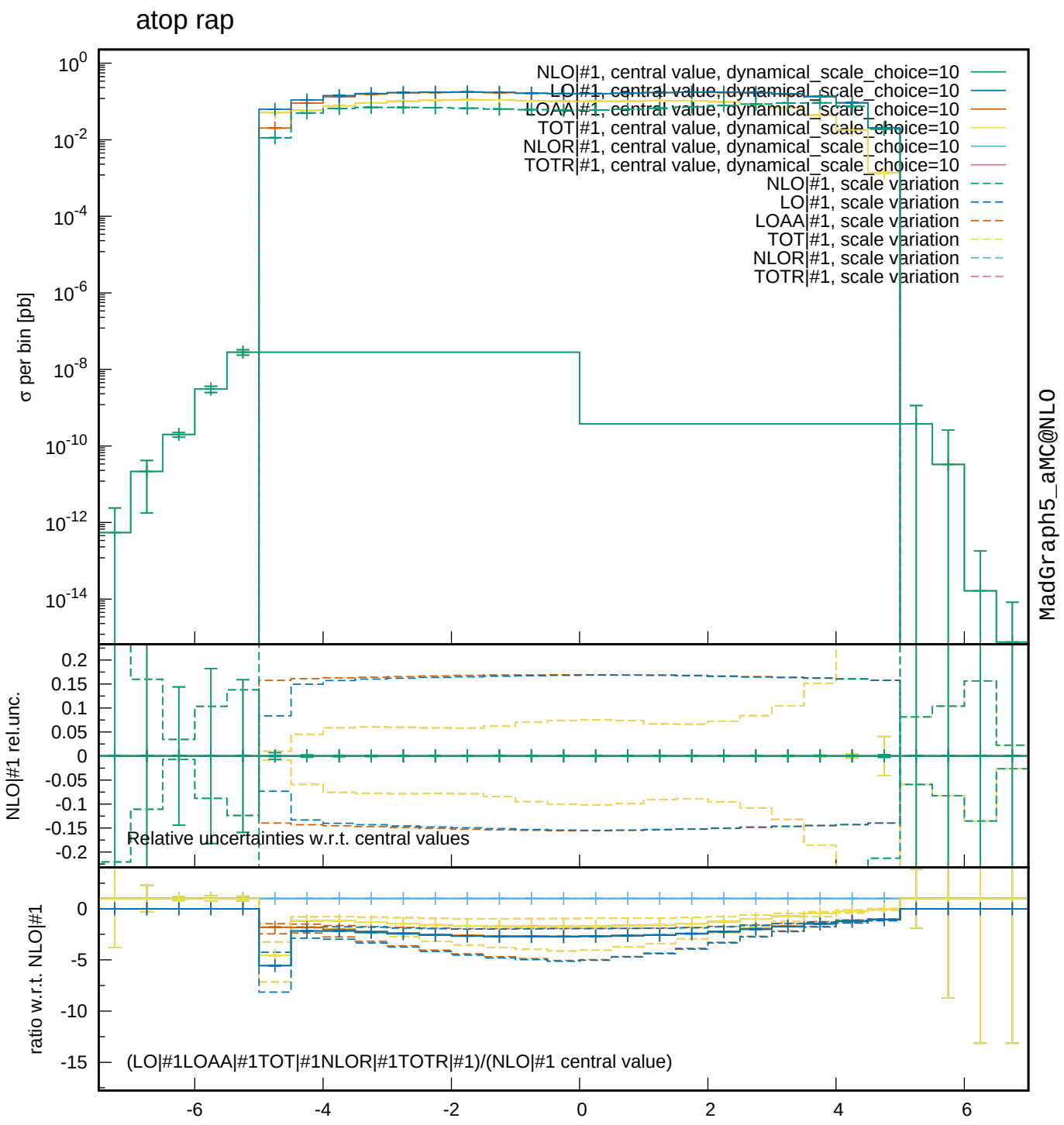

thetamum
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

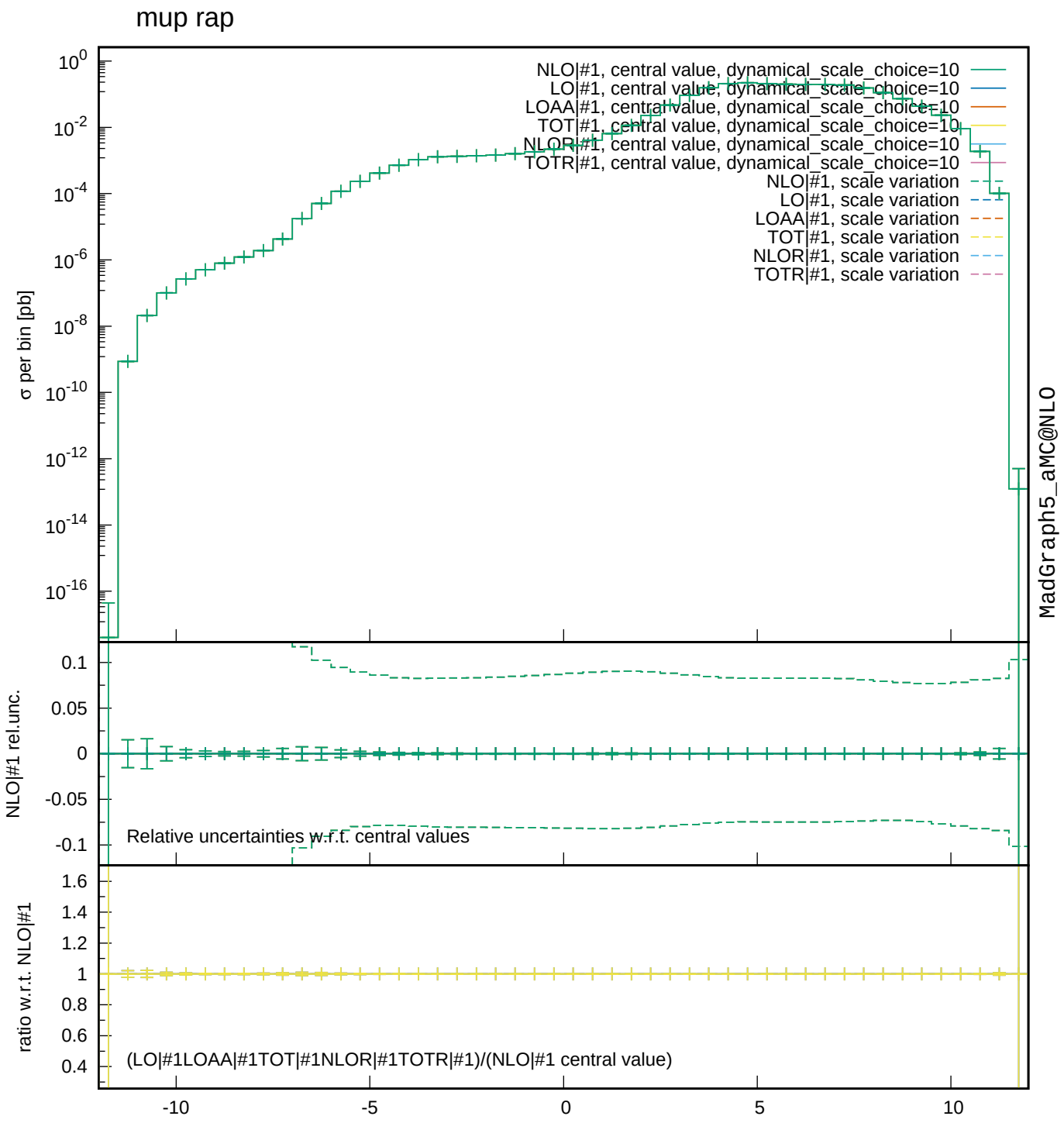

2mu2top invm
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO

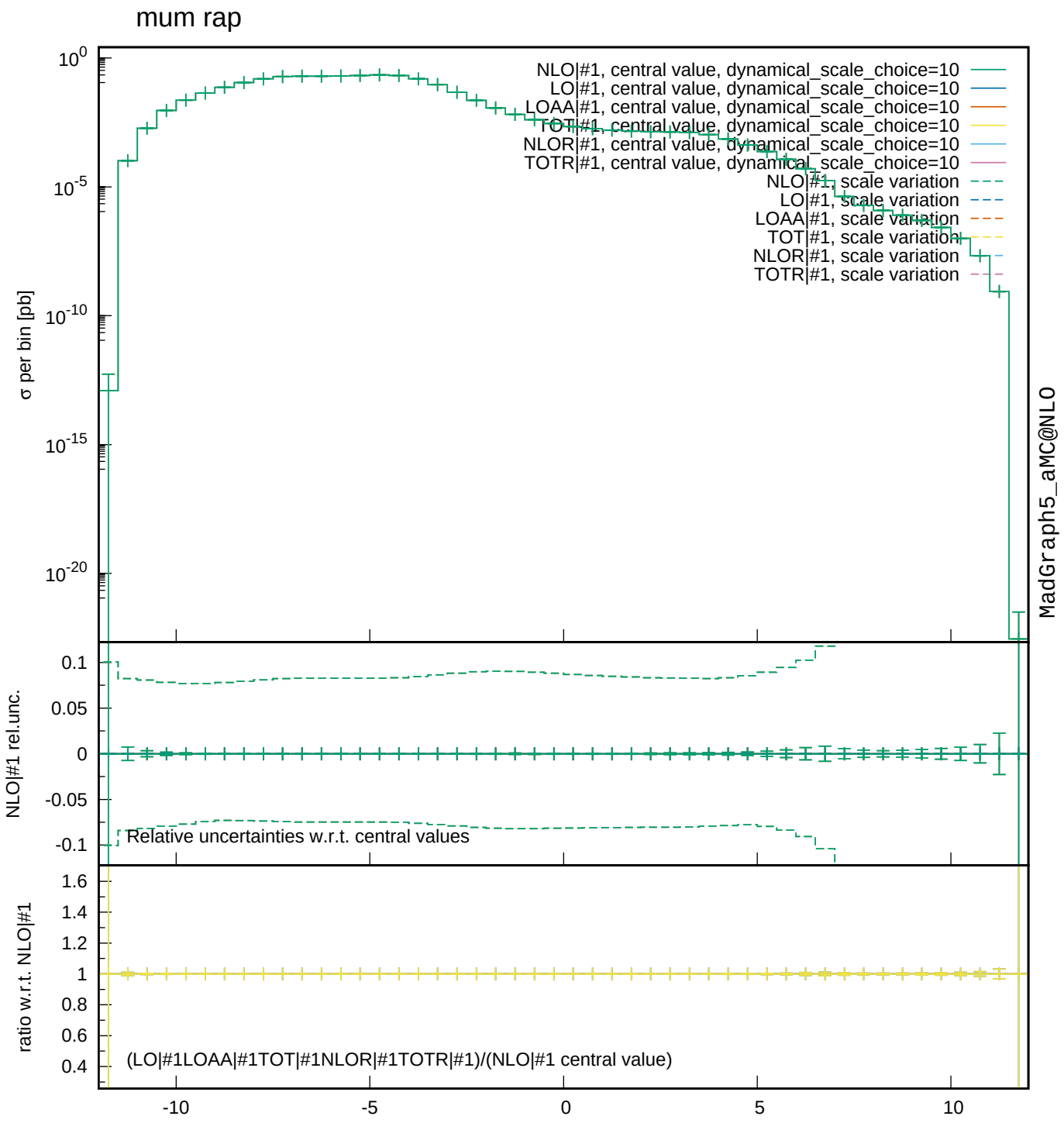

2mu2top rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)

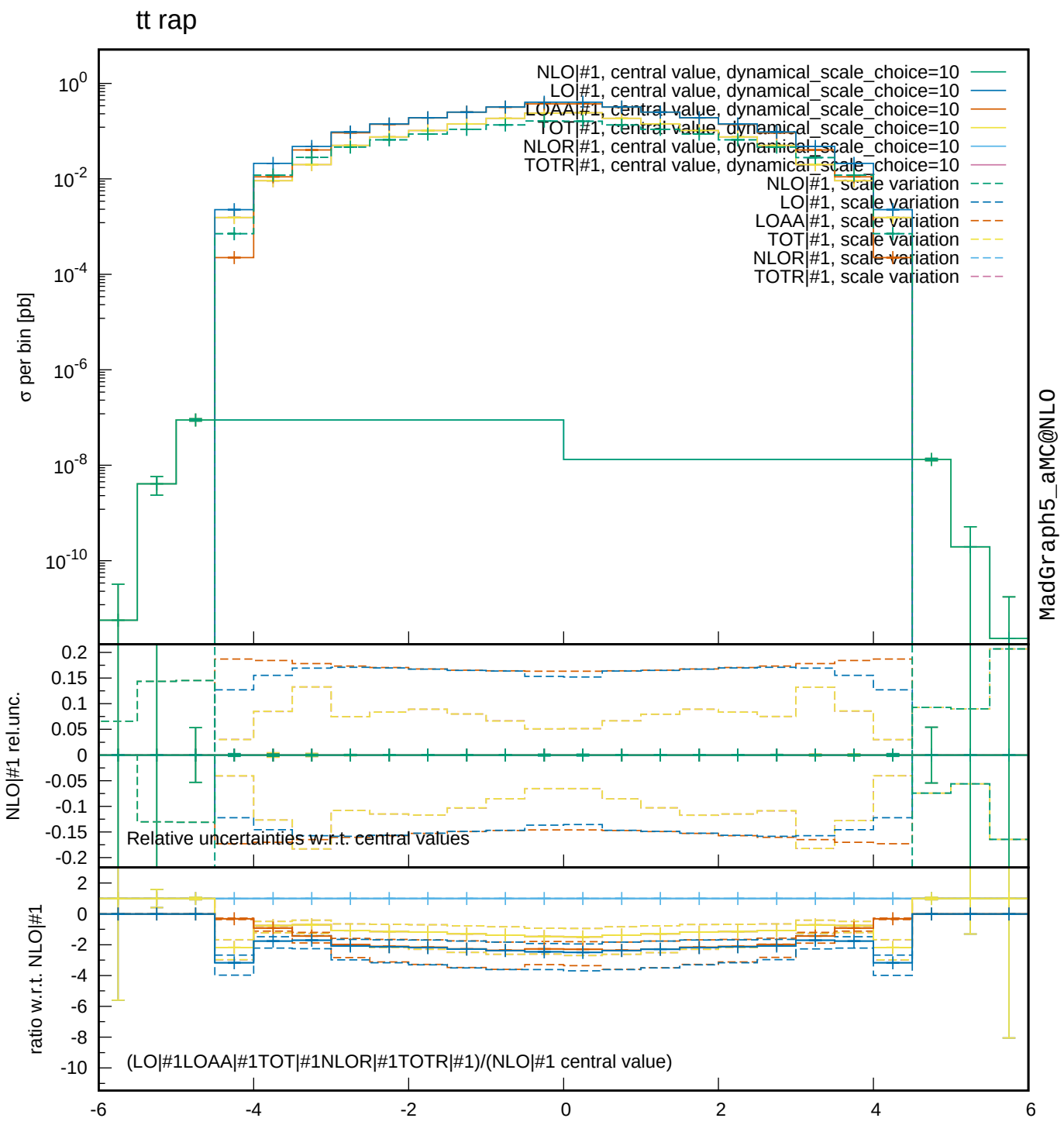

2mu2top pt
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)


top rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO


atop rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO


mup rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)


mum rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1 scale variation
LO|#1 scale variation
LOAA|#1 scale variation
TOT|#1 scale variation
NLOR|#1 scale variation
TOTR|#1 scale variation
σ per bin [pb]
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
MadGraph5_aMC@NLO


tt rap
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
LOAA|#1, central value, dynamical_scale_choice=10
TOT|#1, central value, dynamical_scale_choice=10
NLOR|#1, central value, dynamical_scale_choice=10
TOTR|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale variation
TOT|#1, scale variation
NLOR|#1, scale variation
TOTR|#1, scale variation
σ per bin [pb]
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)