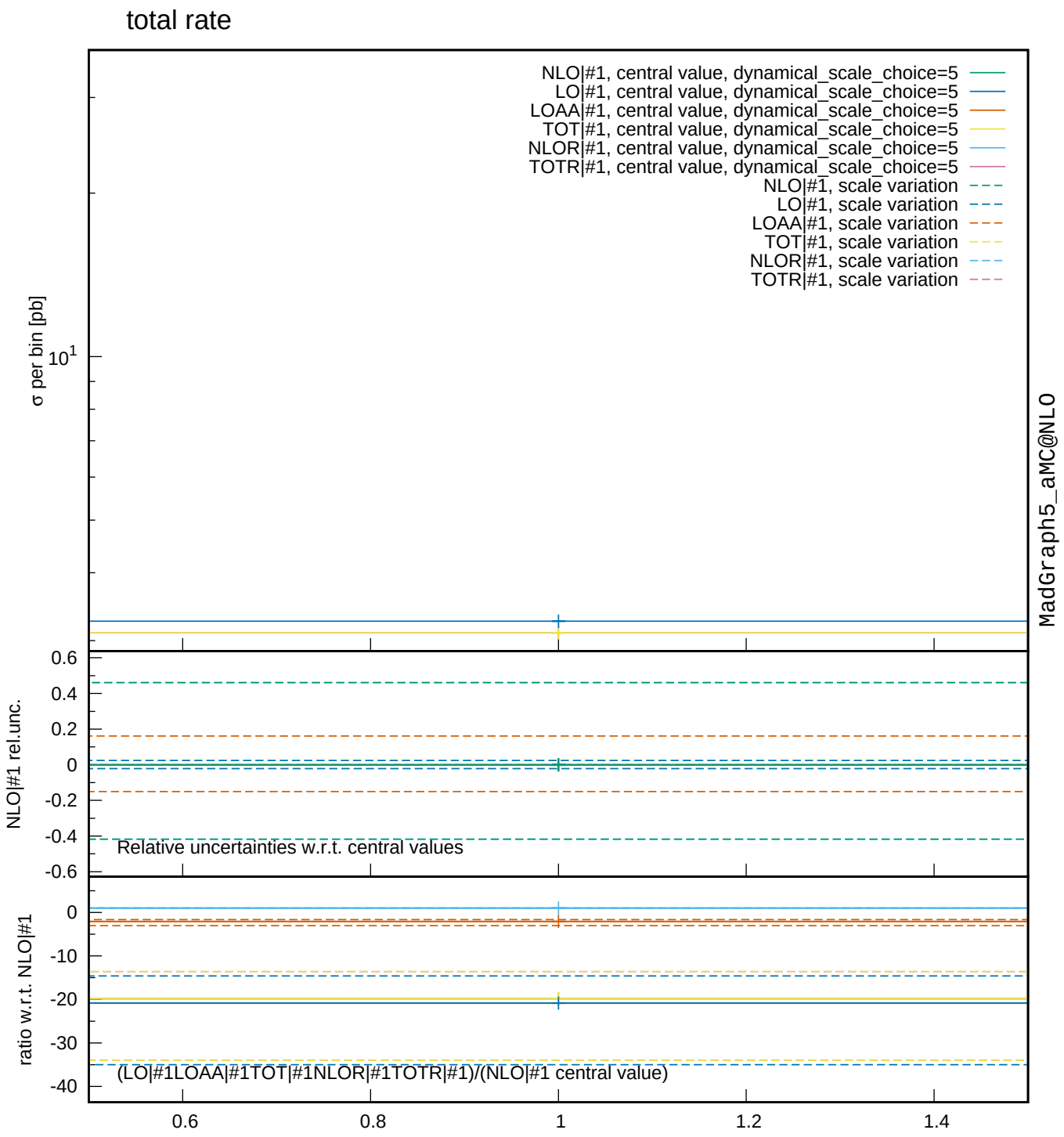
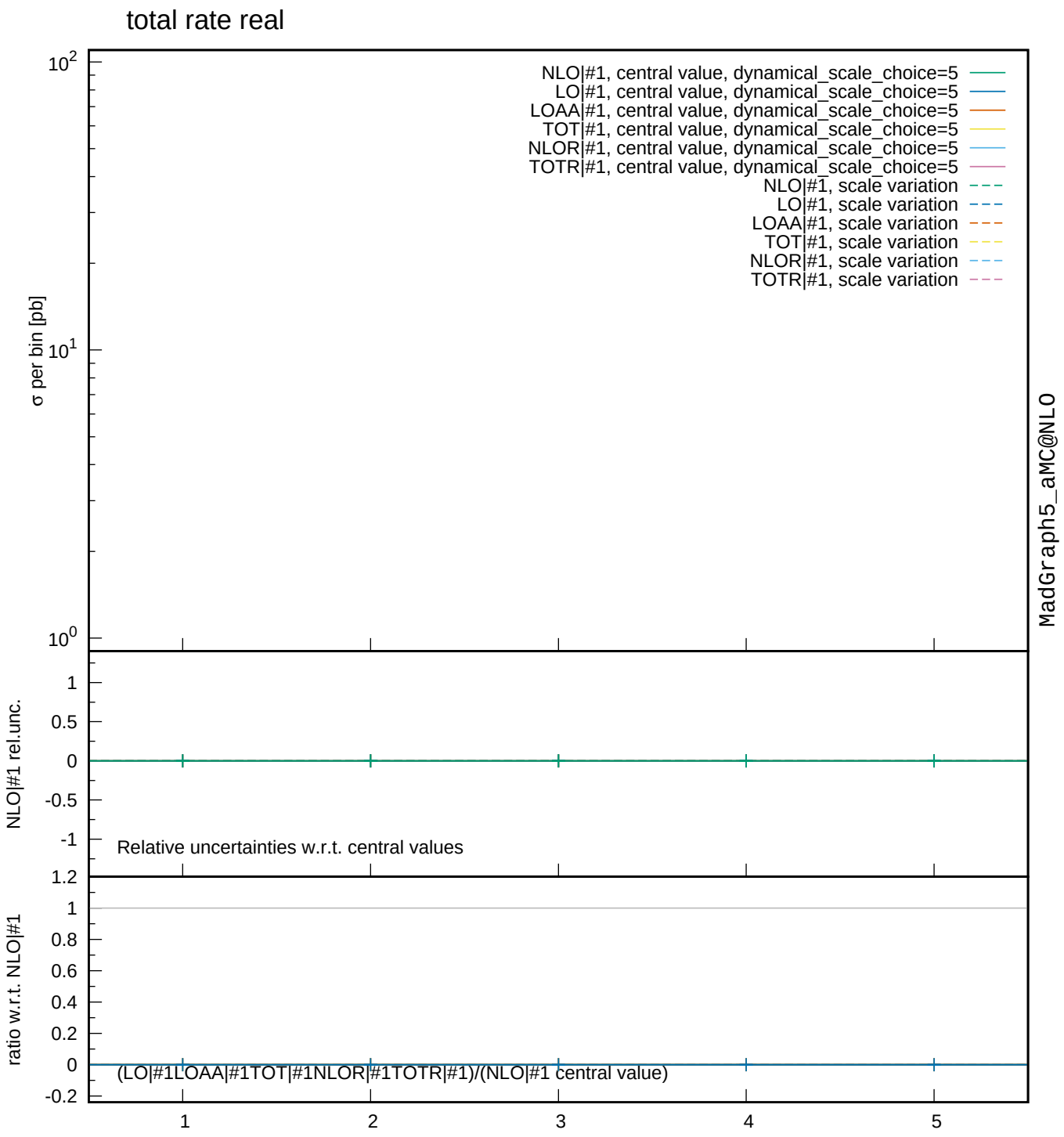
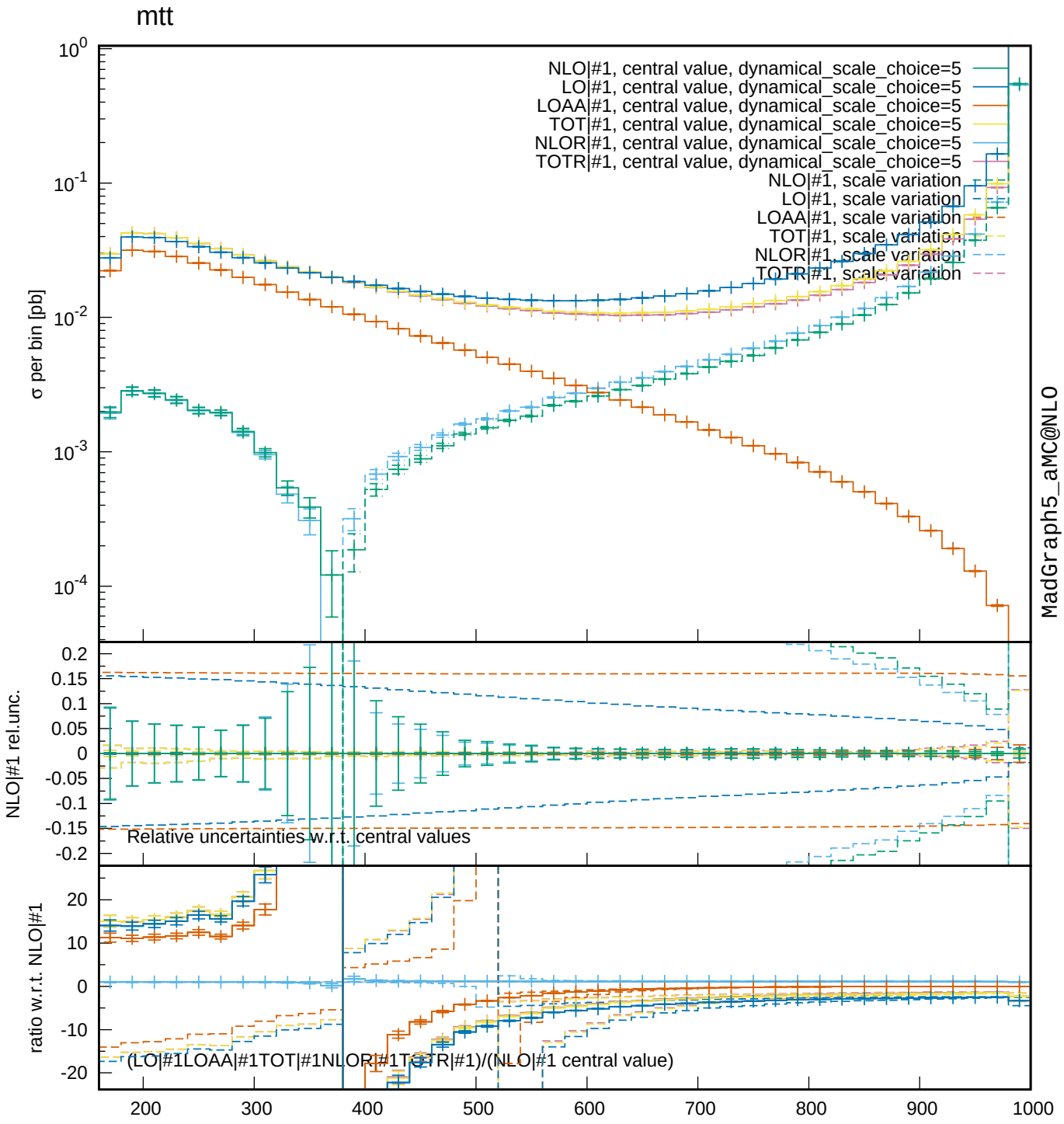
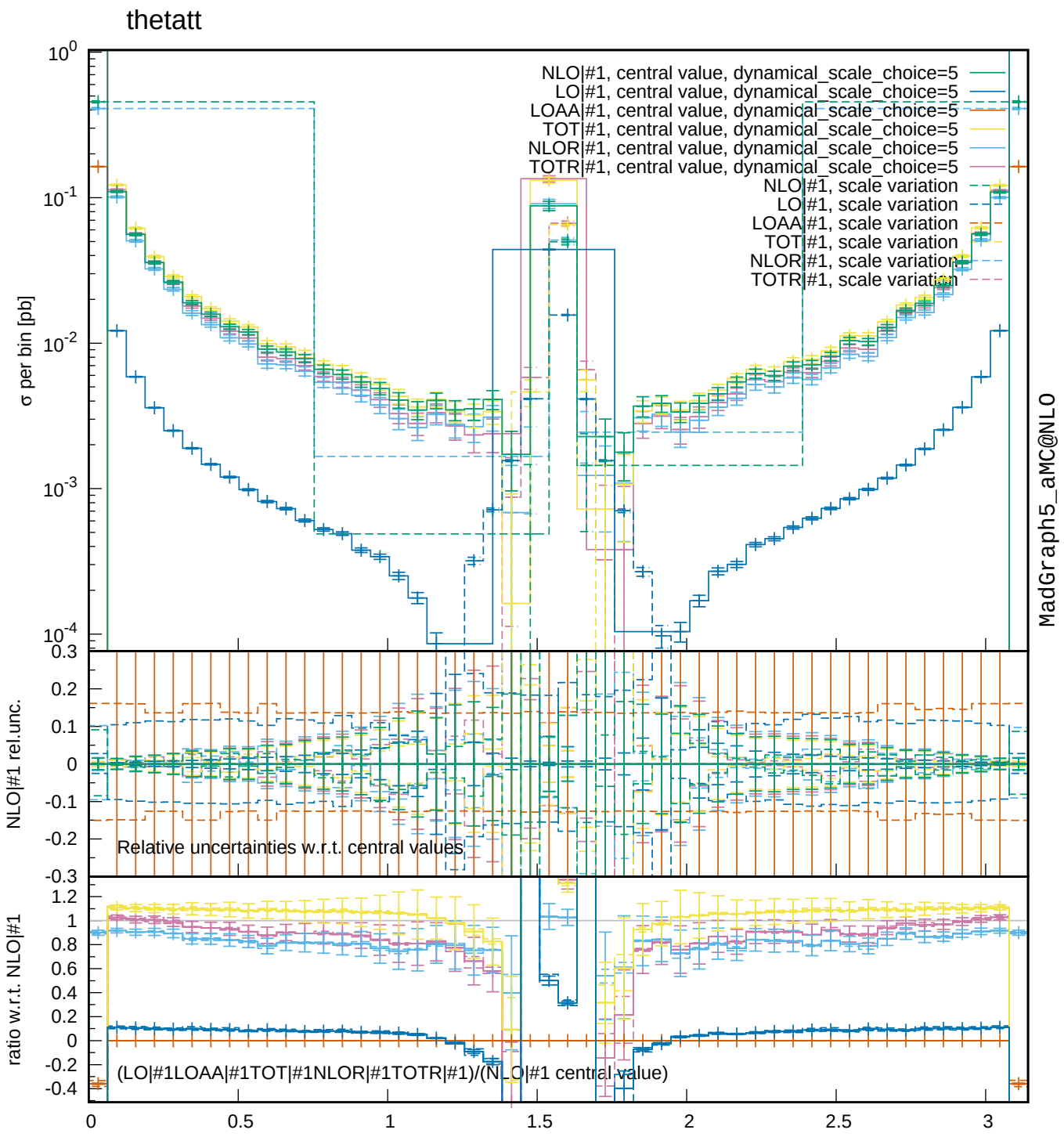
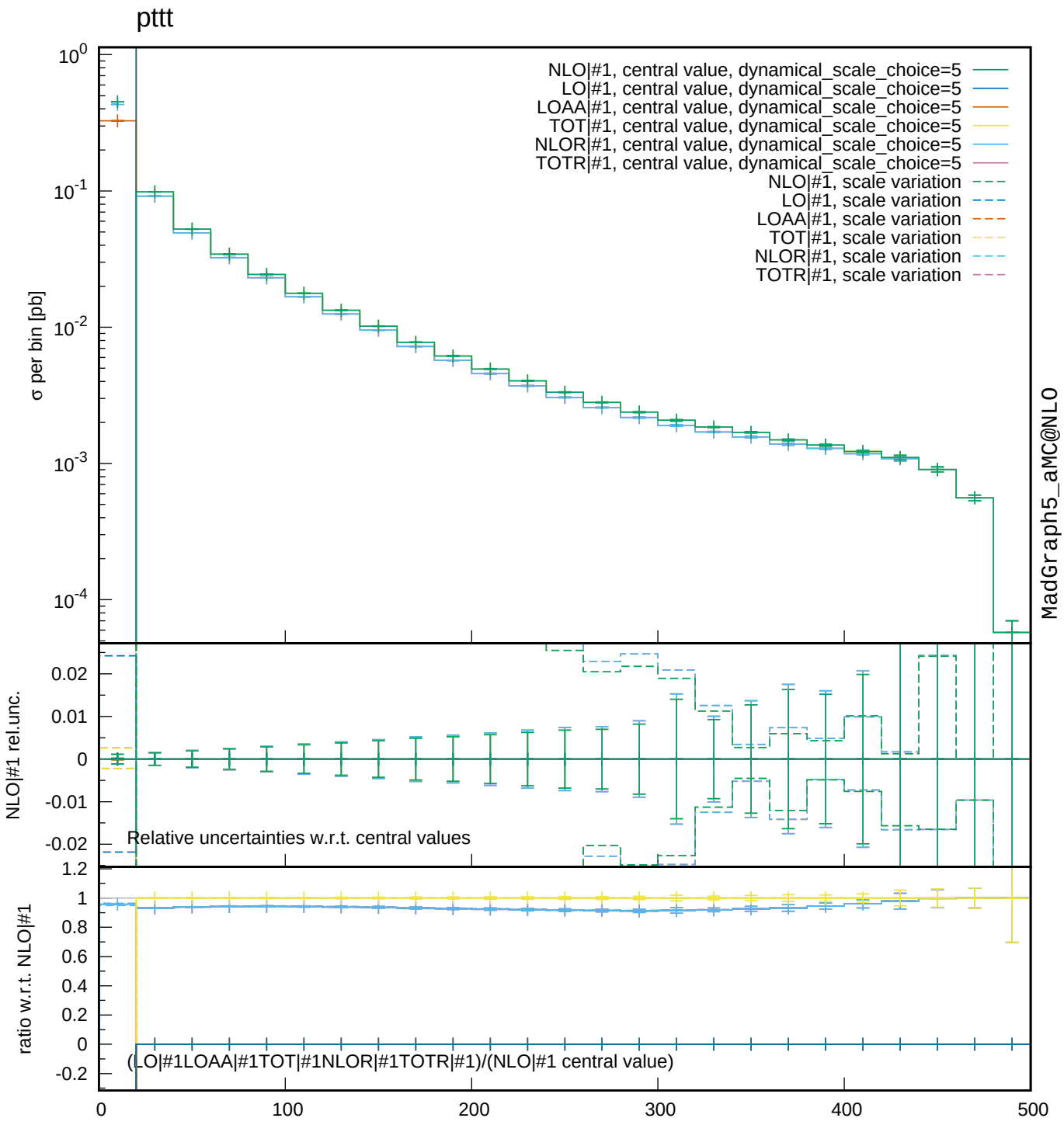
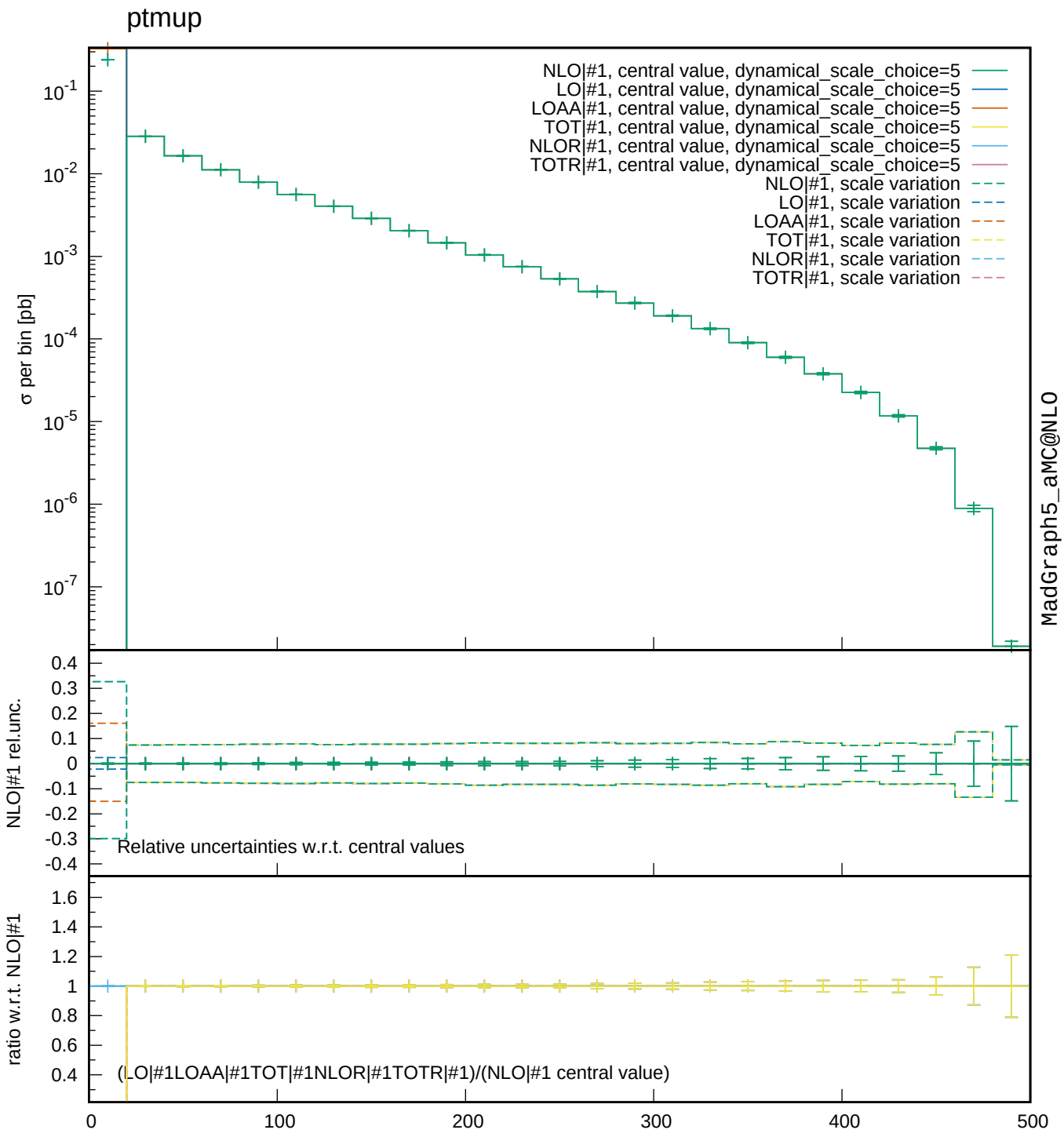

total rate
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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
0
-10
-20
-30
-40
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
0.6
0.8
1
1.2
1.4

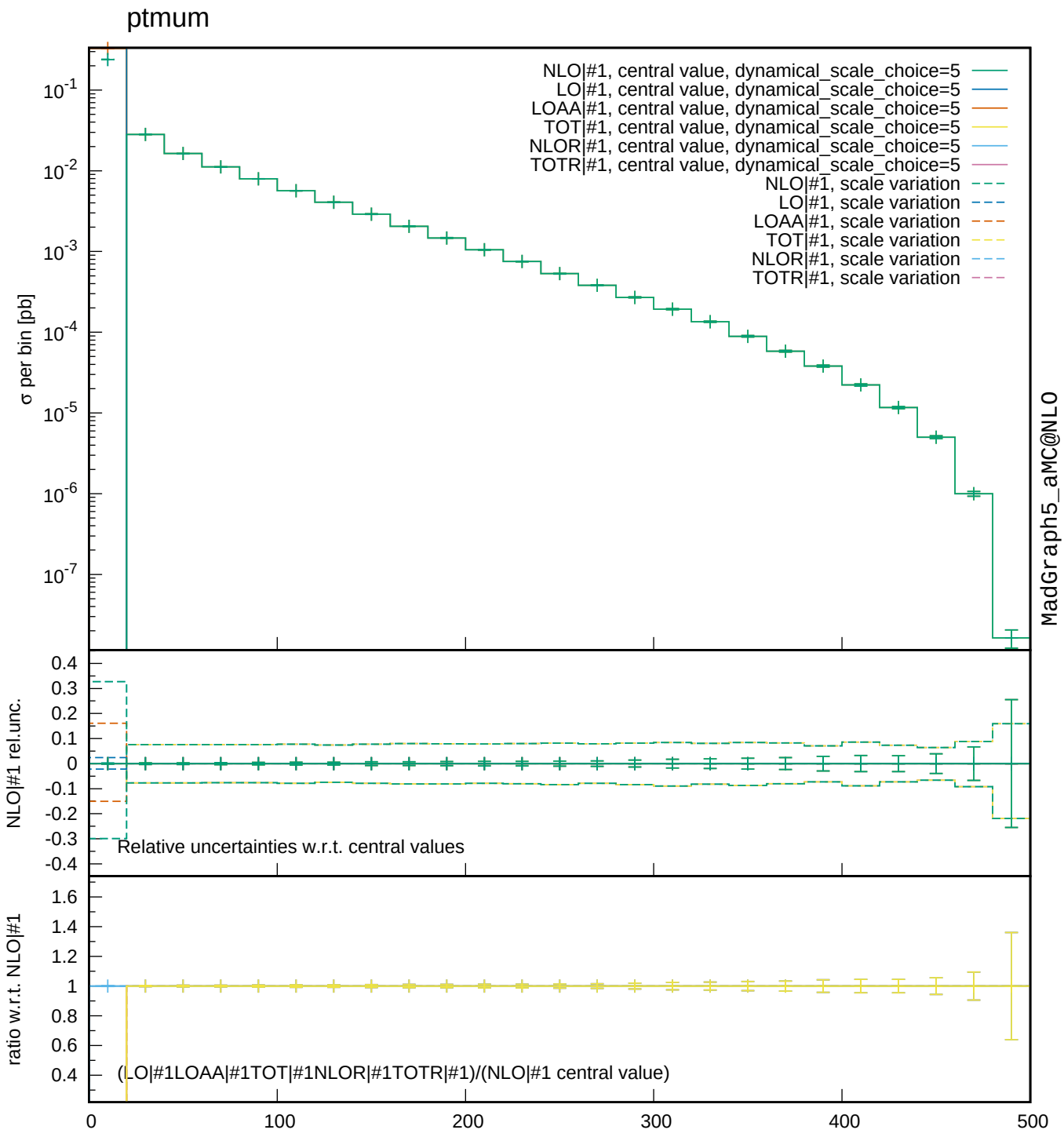

total rate real
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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

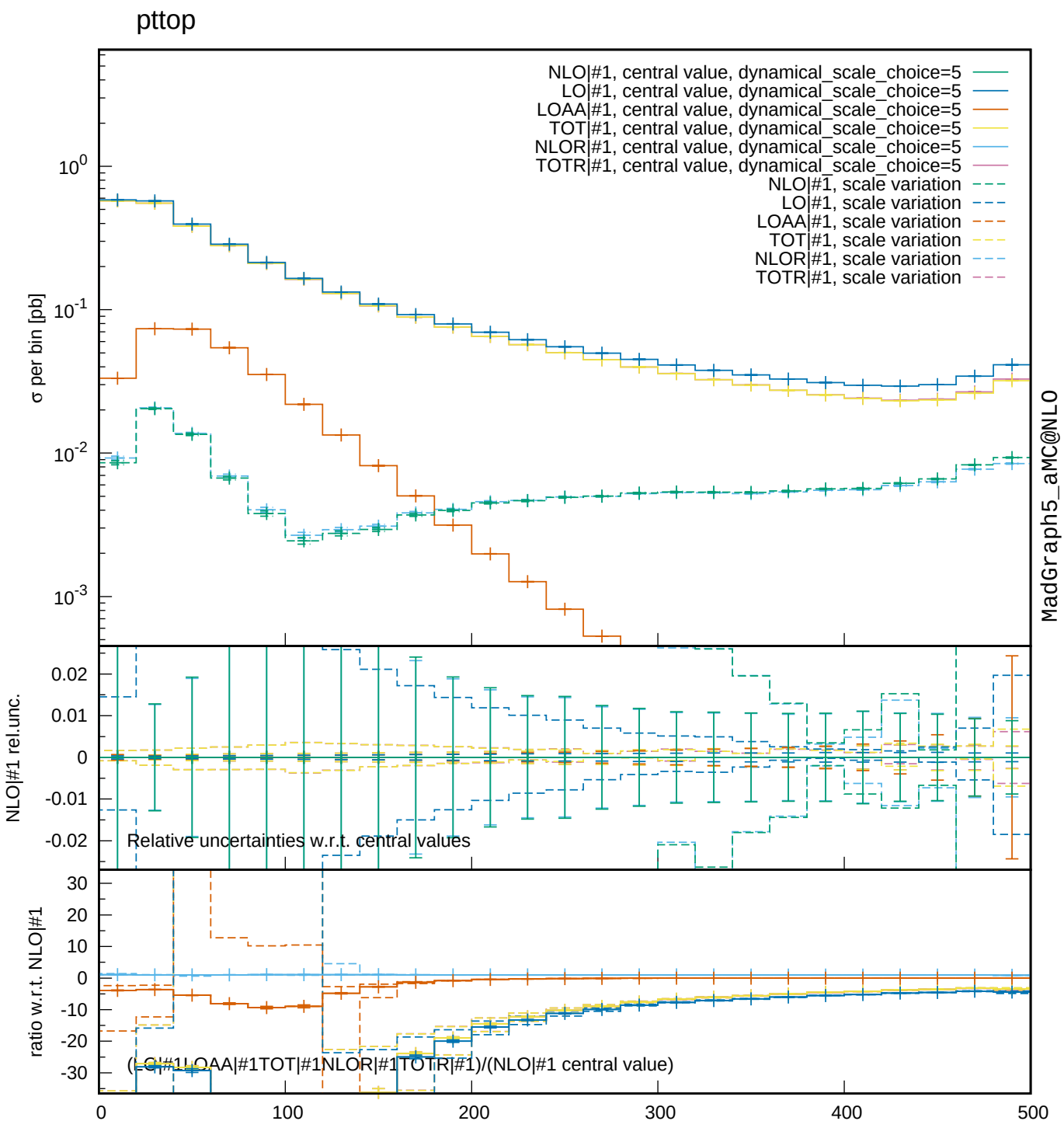

mtt
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, 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

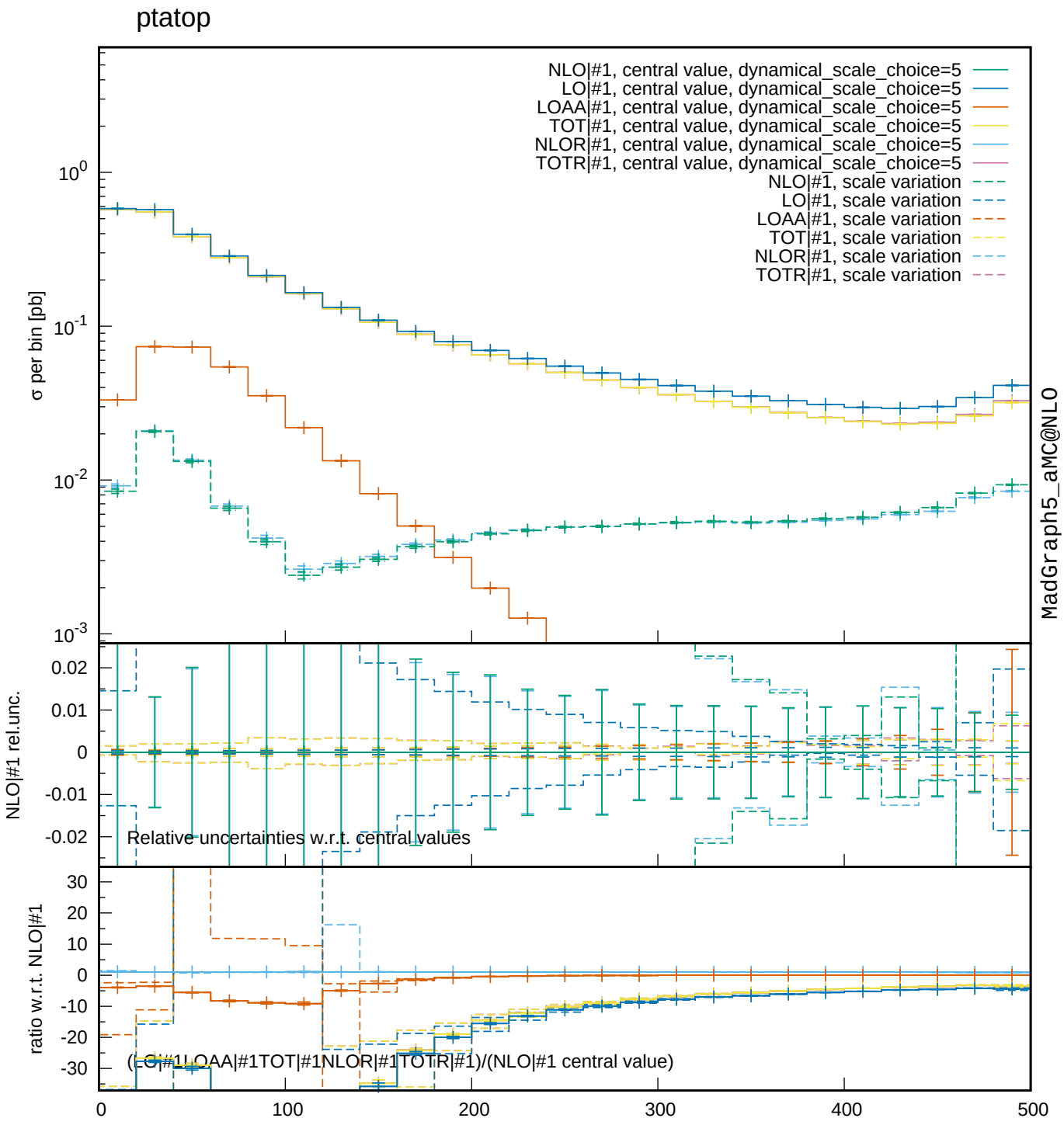

thetatt
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, 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

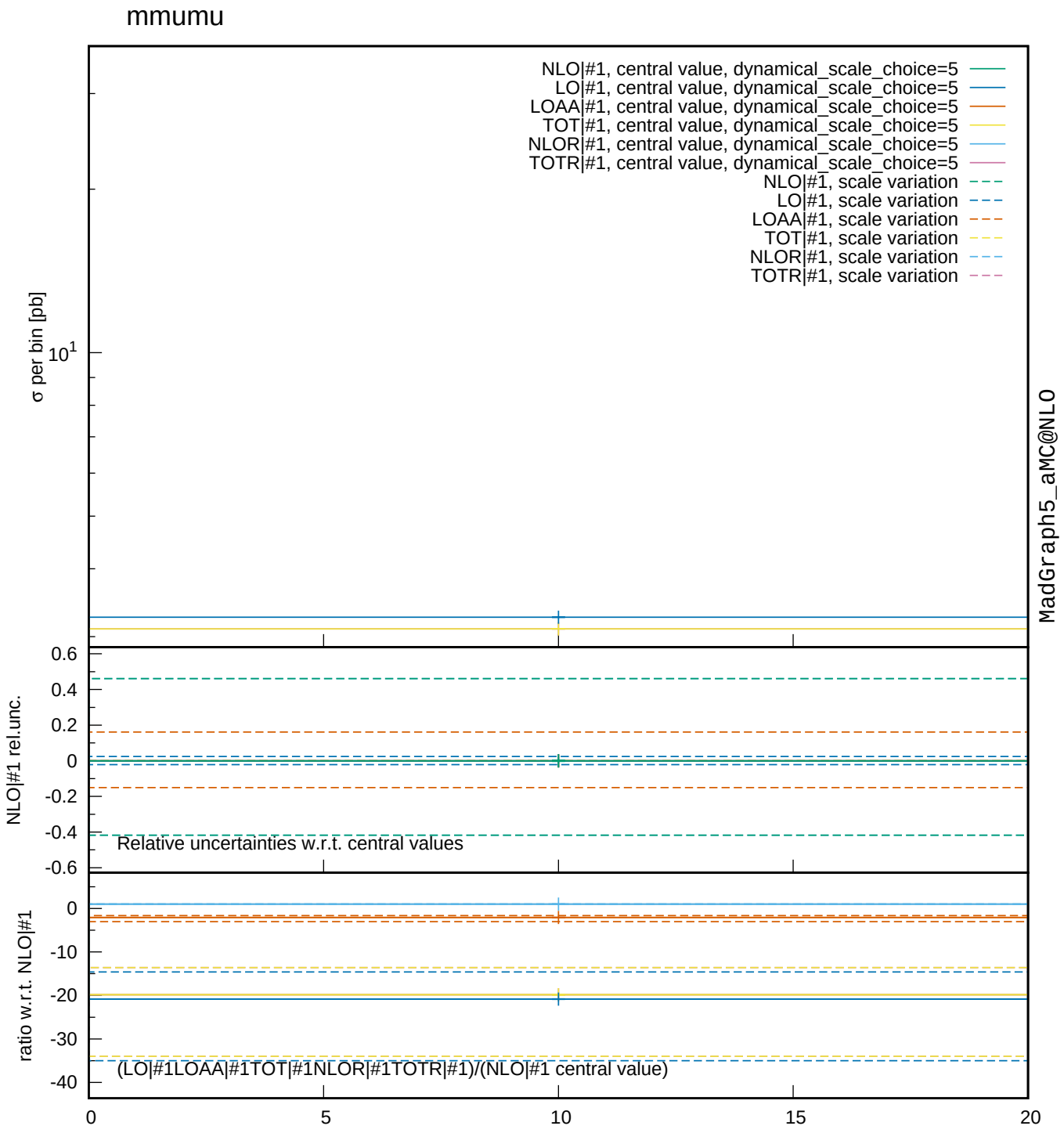

pttt
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, 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)

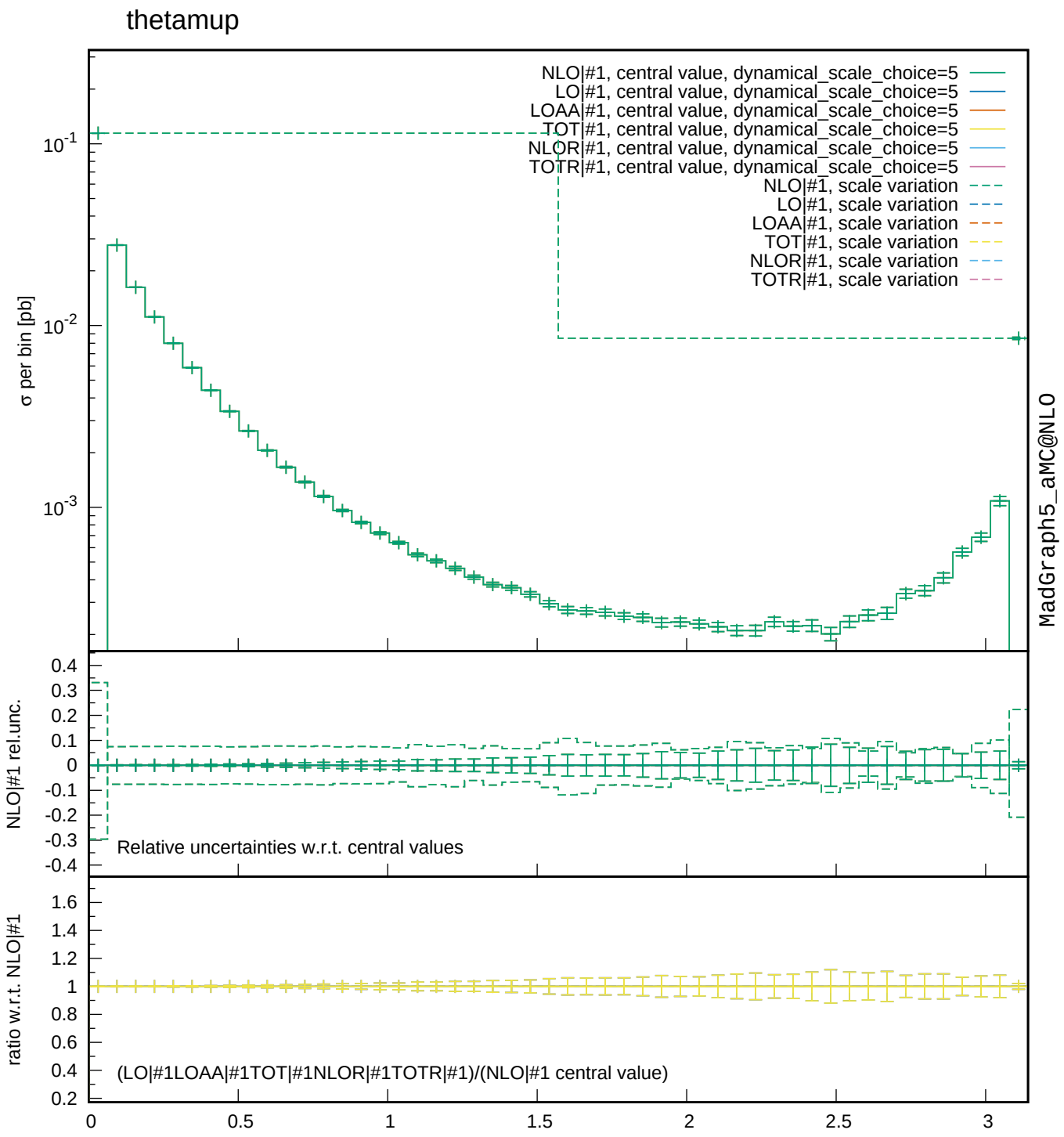

ptmup
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, 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)

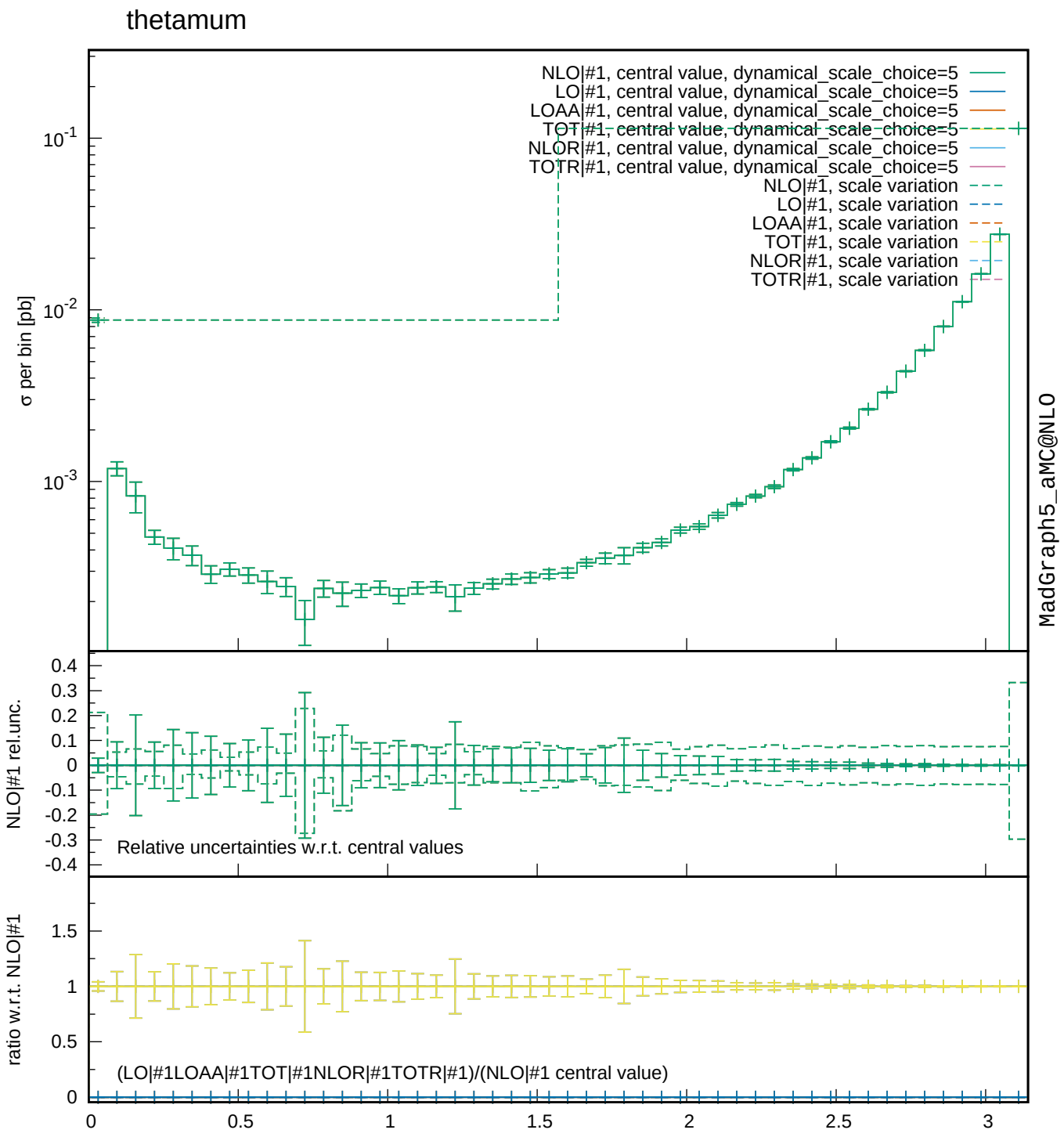

ptmum
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, 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=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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|#1+LOAA|#1+TOT|#1+NLOR|#1+TOTR|#1)/(NLO|#1 central value)


ptatop
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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|#1,LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)


mmumu
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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
0
-10
-20
-30
-40
(LO|#1LOAA|#1TOT|#1NLOR|#1TOTR|#1)/(NLO|#1 central value)
0
5
10
15
20


thetamup
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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
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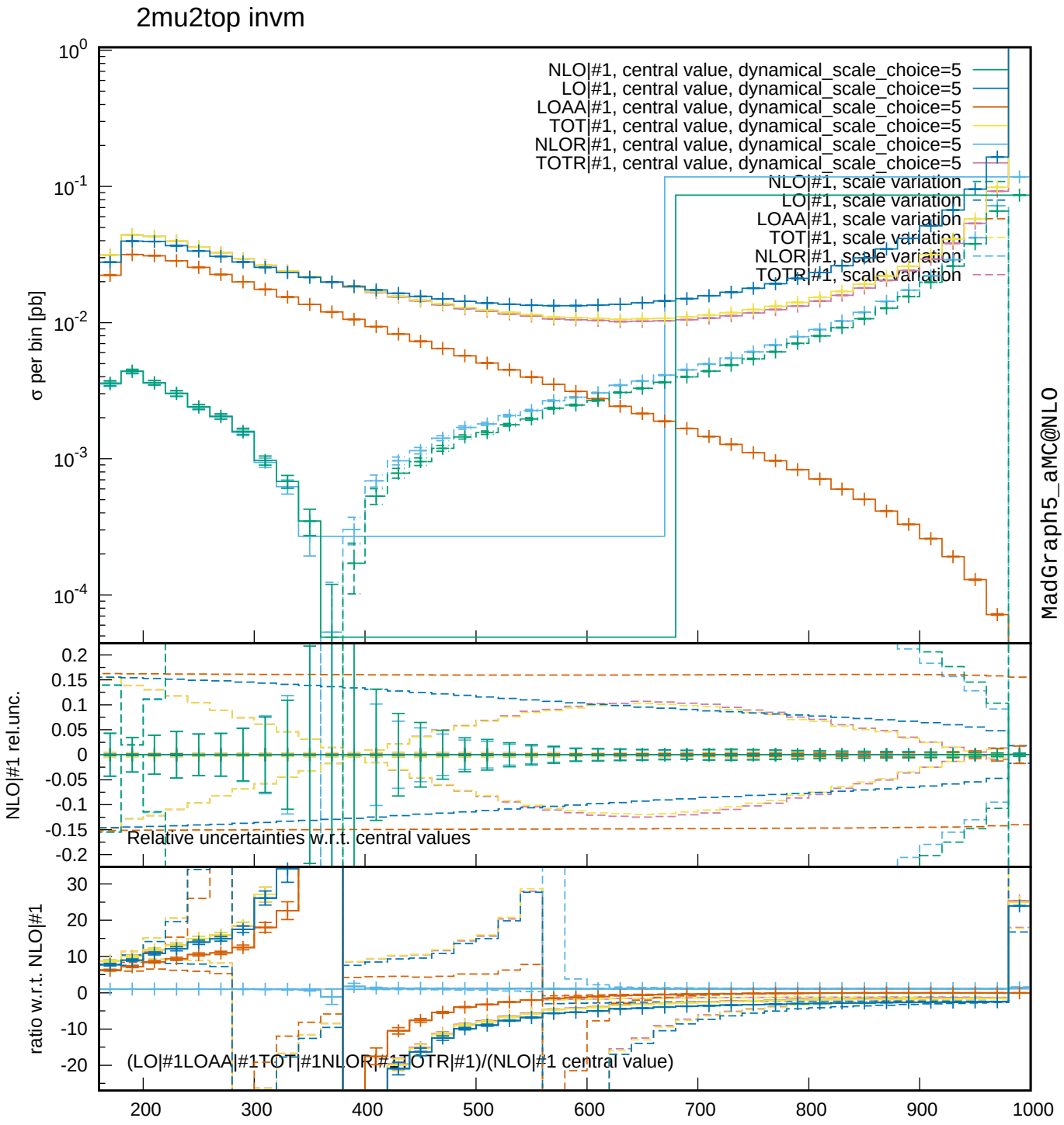
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale 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
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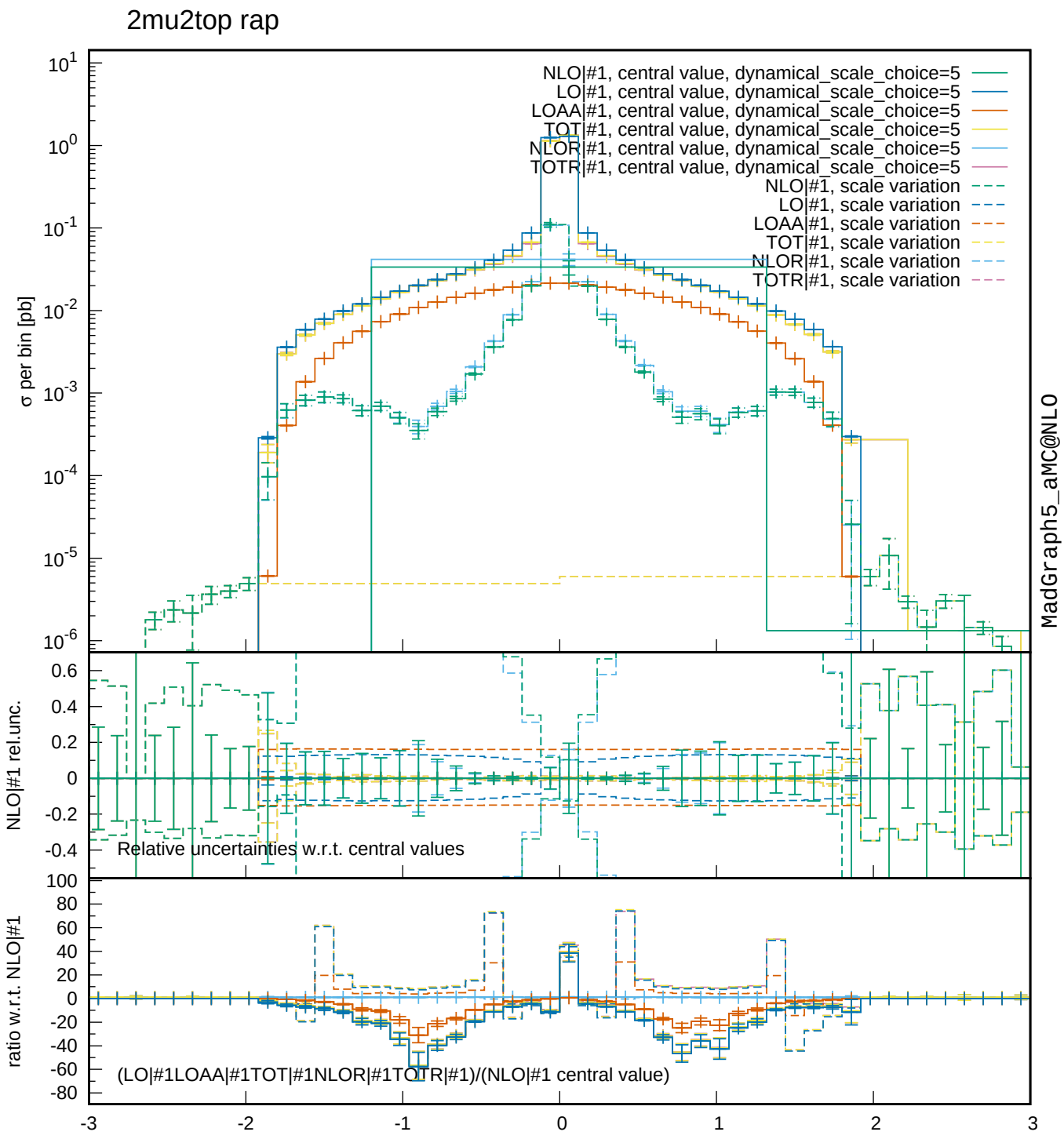
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale 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
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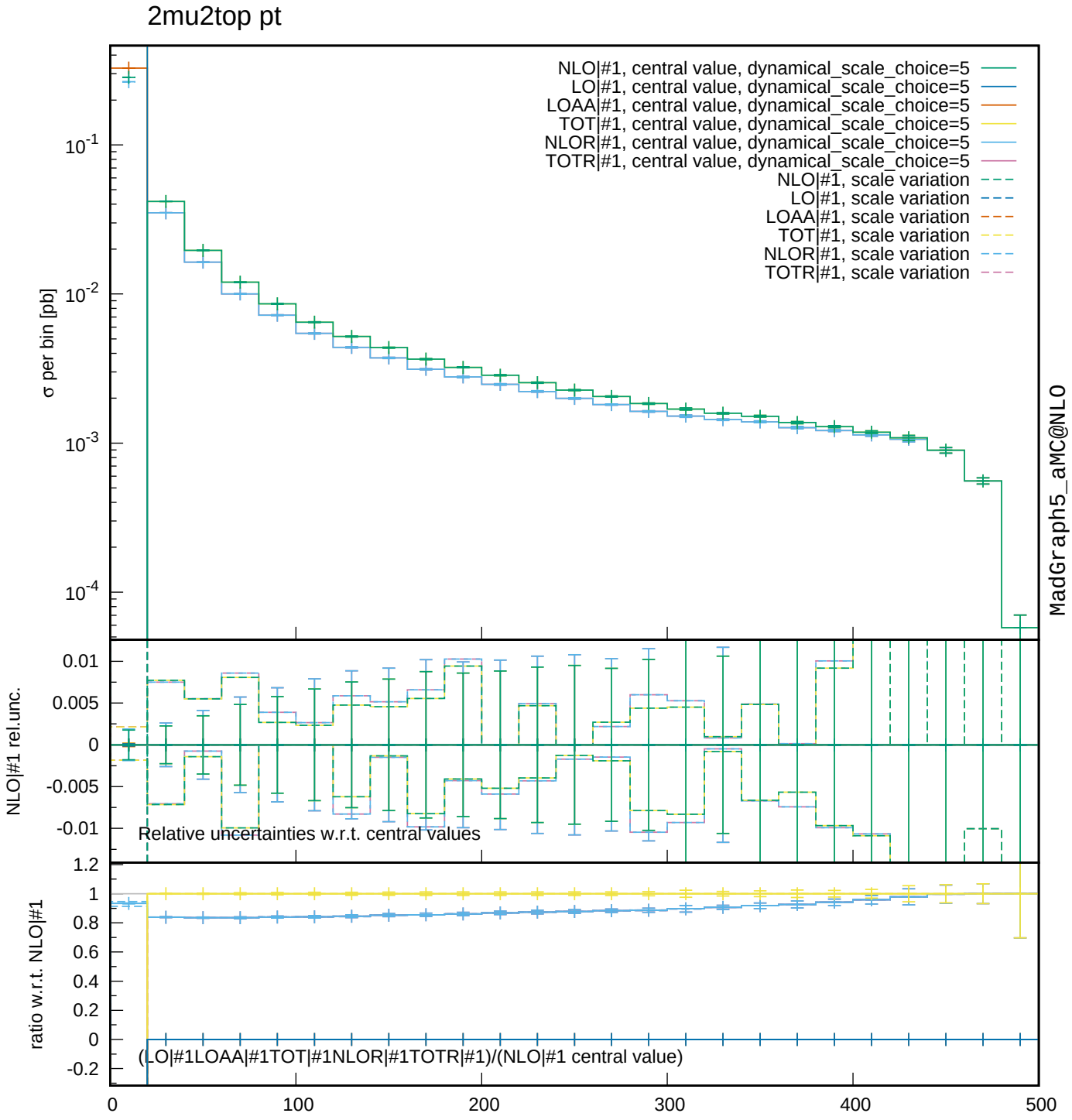
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale 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 pt
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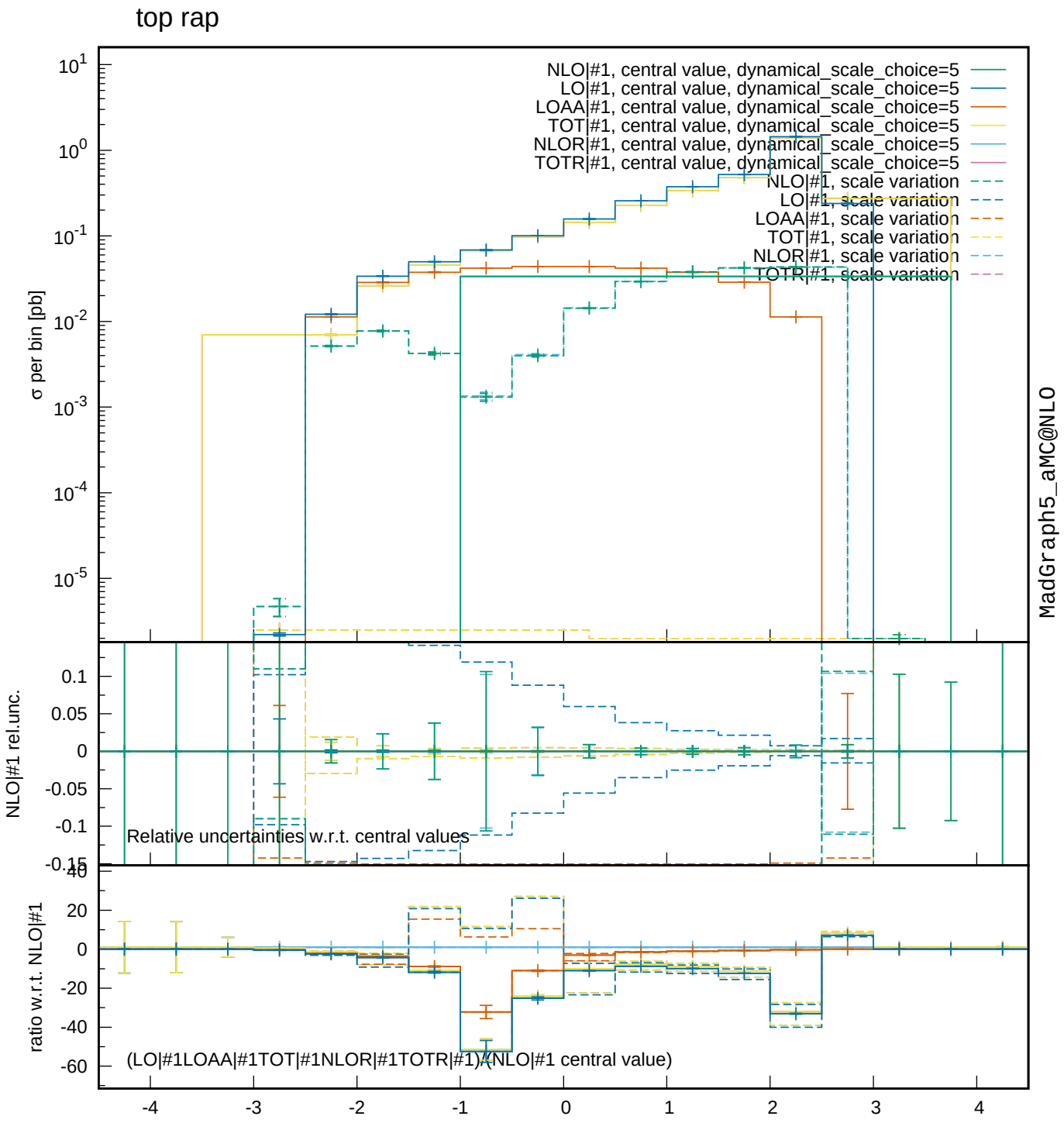
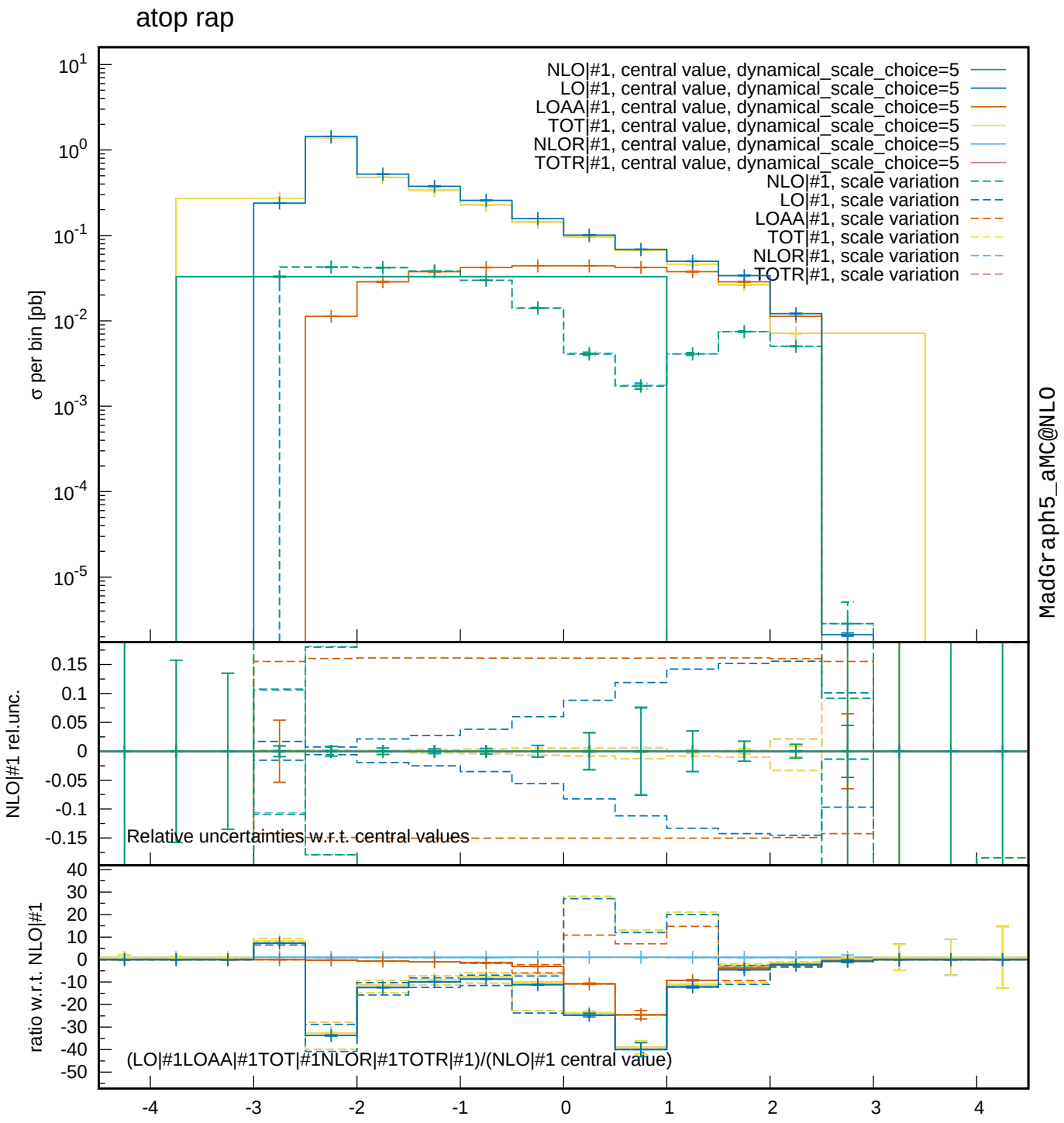
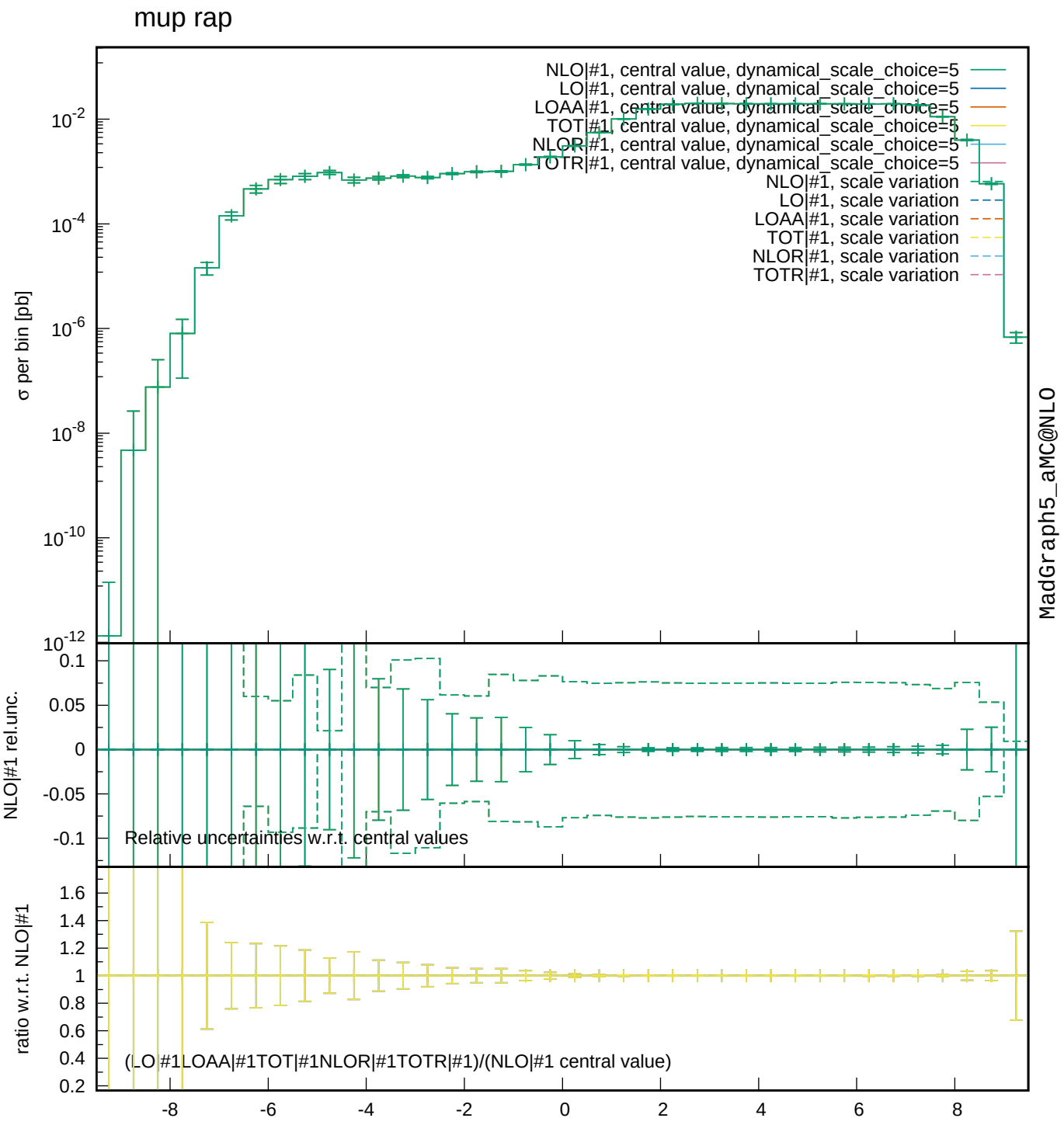
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale 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=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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)


atop rap
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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
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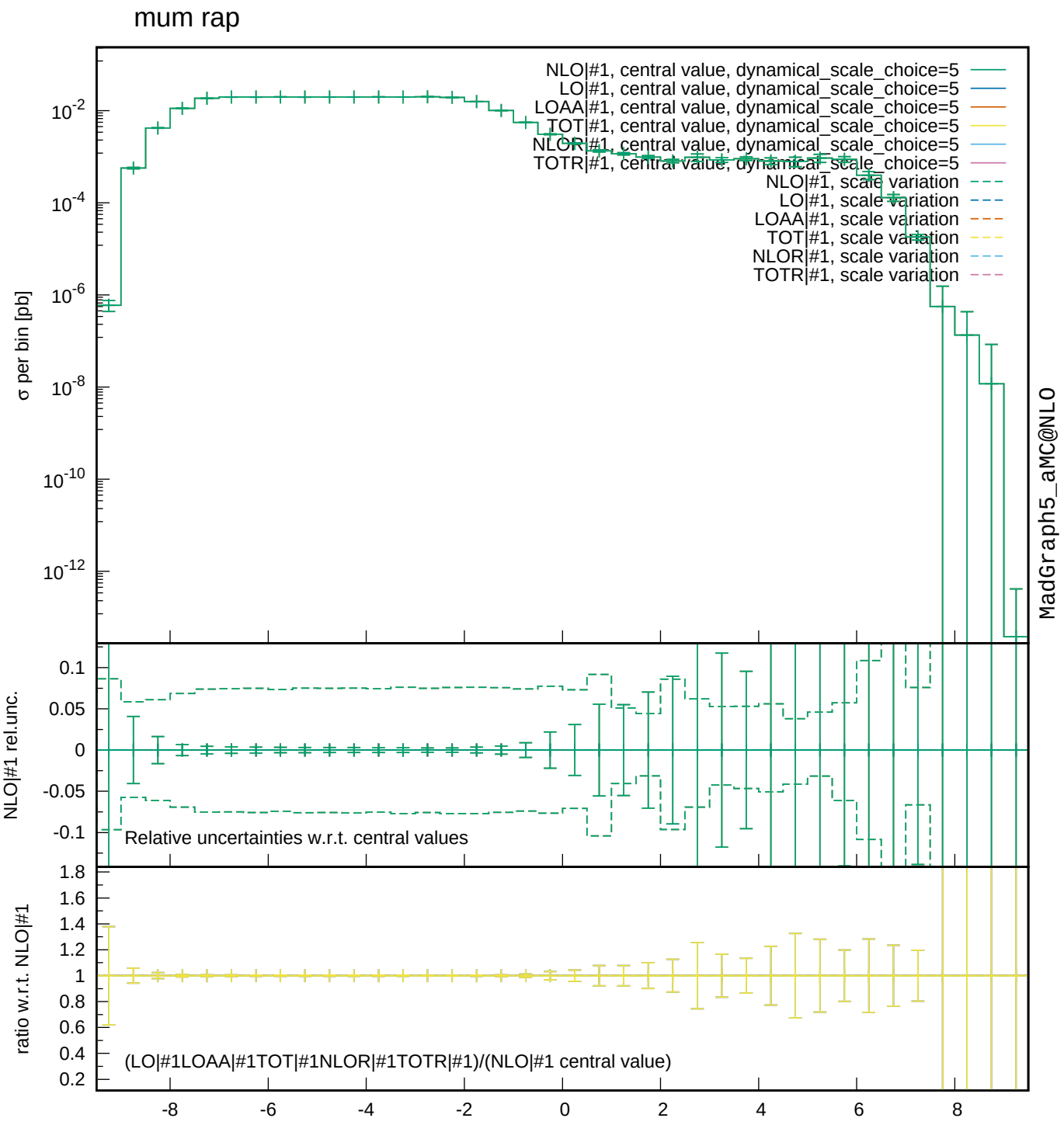
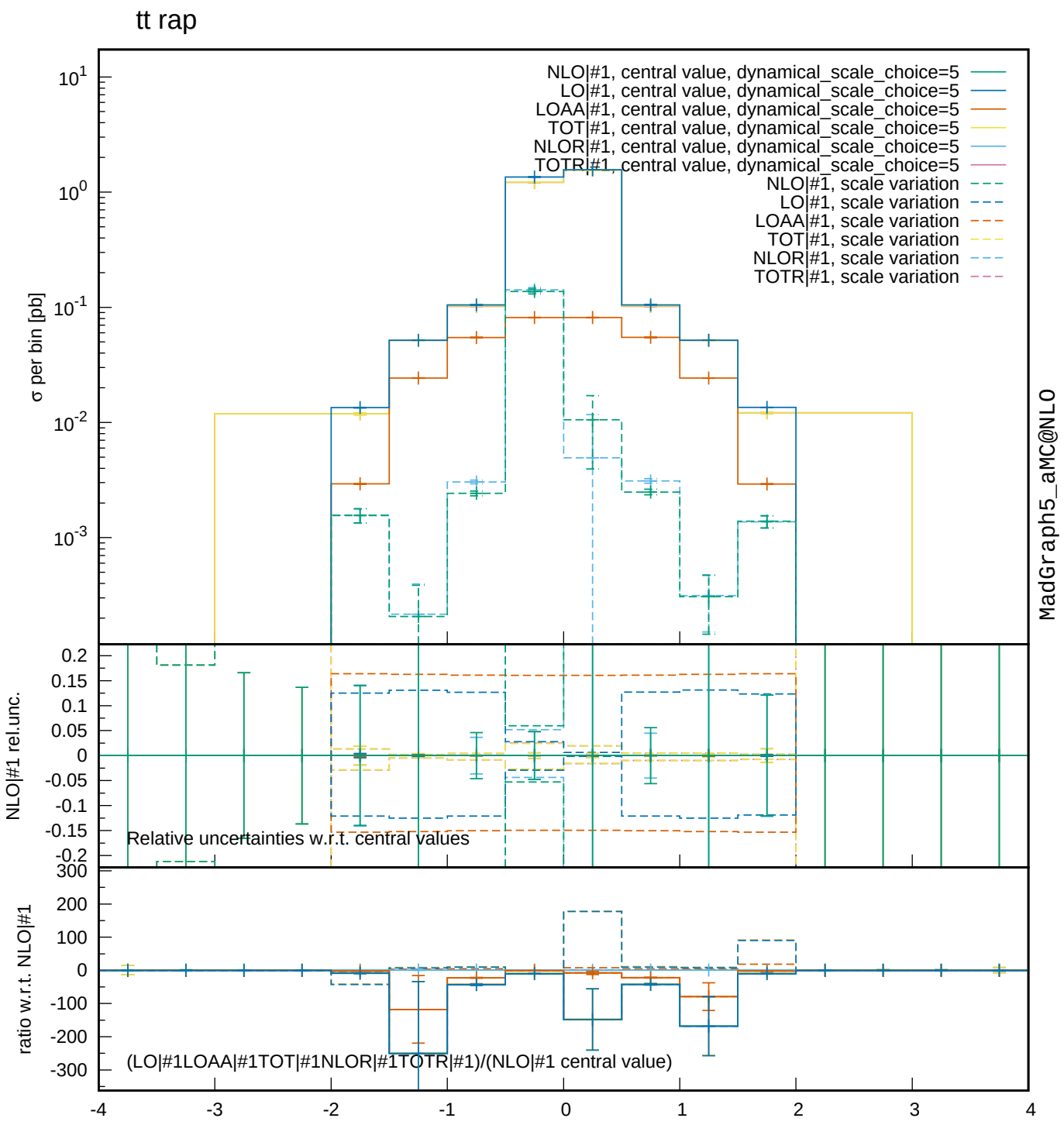
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
NLO|#1, scale variation
LO|#1, scale variation
LOAA|#1, scale 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=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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)


tt rap
NLO|#1, central value, dynamical_scale_choice=5
LO|#1, central value, dynamical_scale_choice=5
LOAA|#1, central value, dynamical_scale_choice=5
TOT|#1, central value, dynamical_scale_choice=5
NLOR|#1, central value, dynamical_scale_choice=5
TOTR|#1, central value, dynamical_scale_choice=5
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