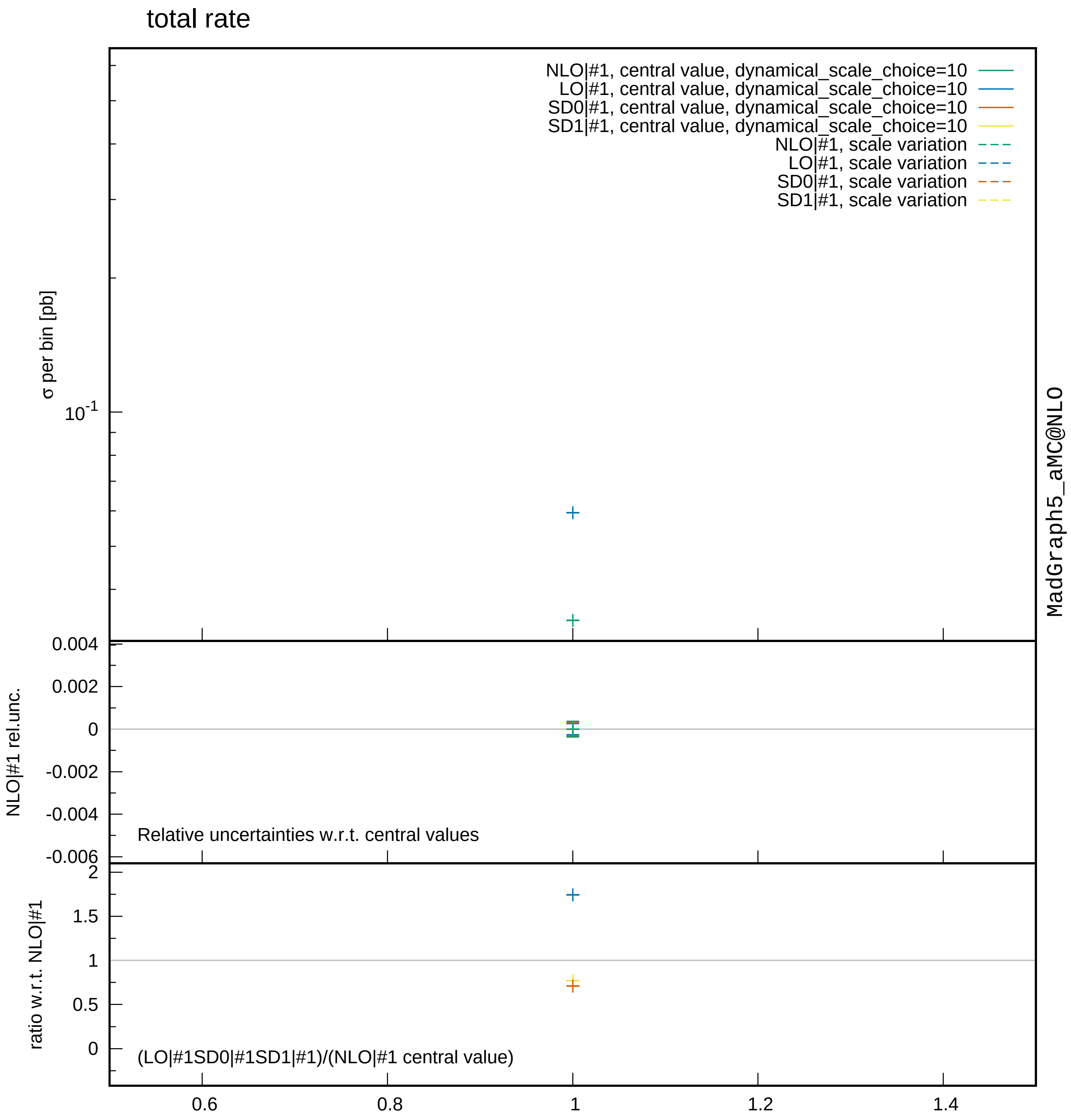
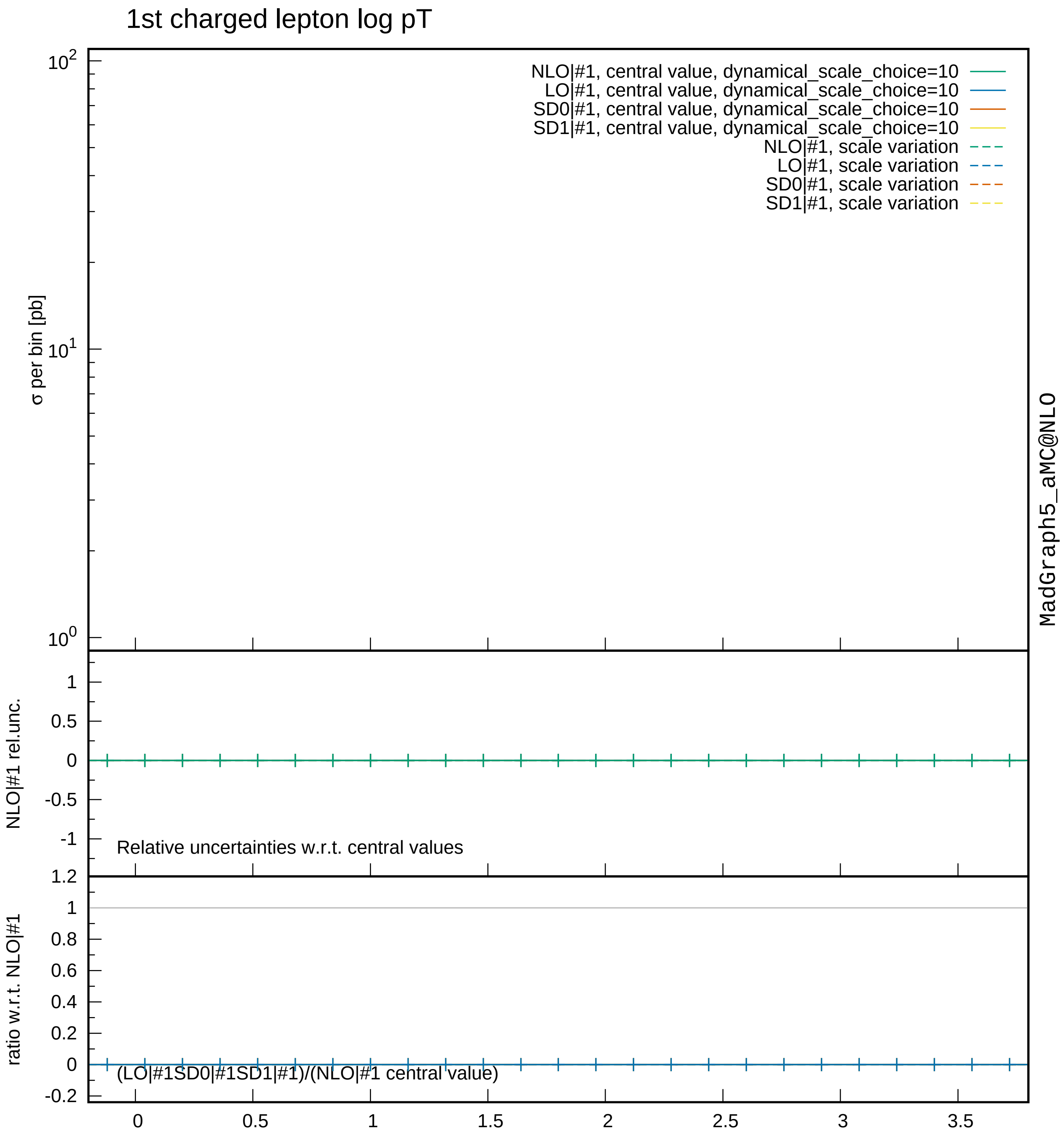
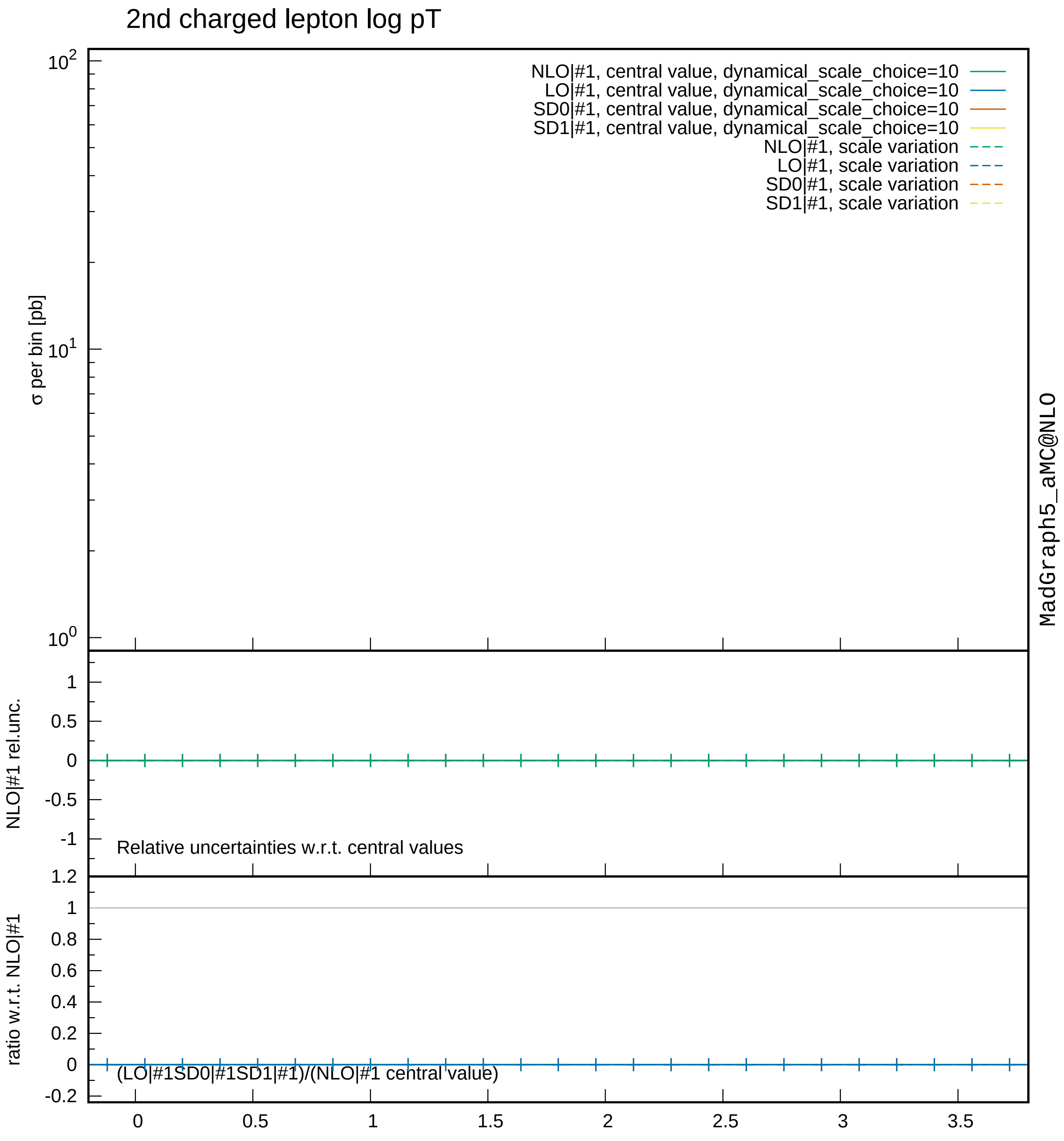
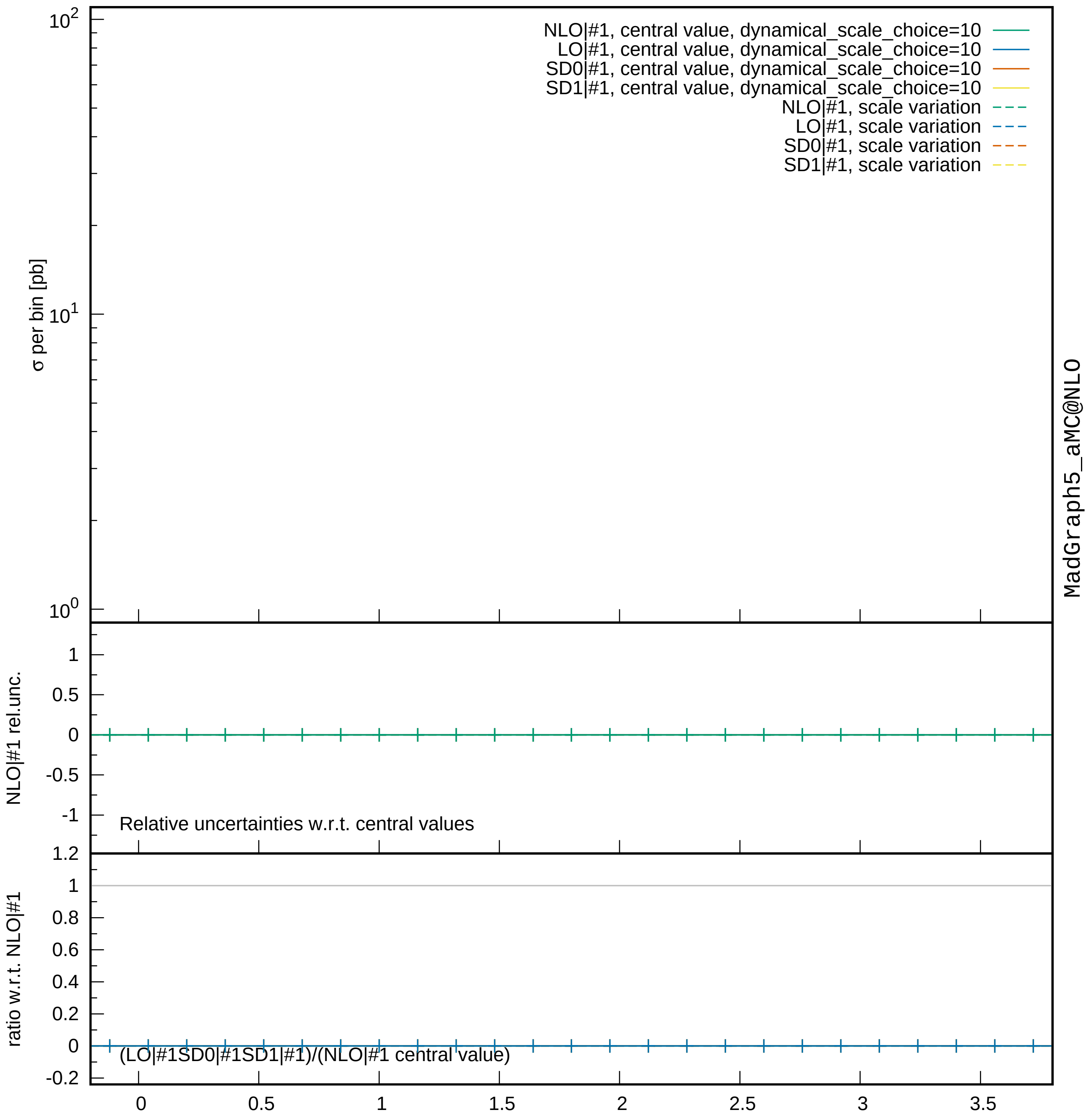

total rate
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10-1
MadGraph5_aMC@NLO
0.004
0.002
0
-0.002
-0.004
-0.006
NLO|#1 rel.unc.
Relative uncertainties w.r.t. central values
2
1.5
1
0.5
0
ratio w.r.t. NLO|#1
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0.6
0.8
1
1.2
1.4

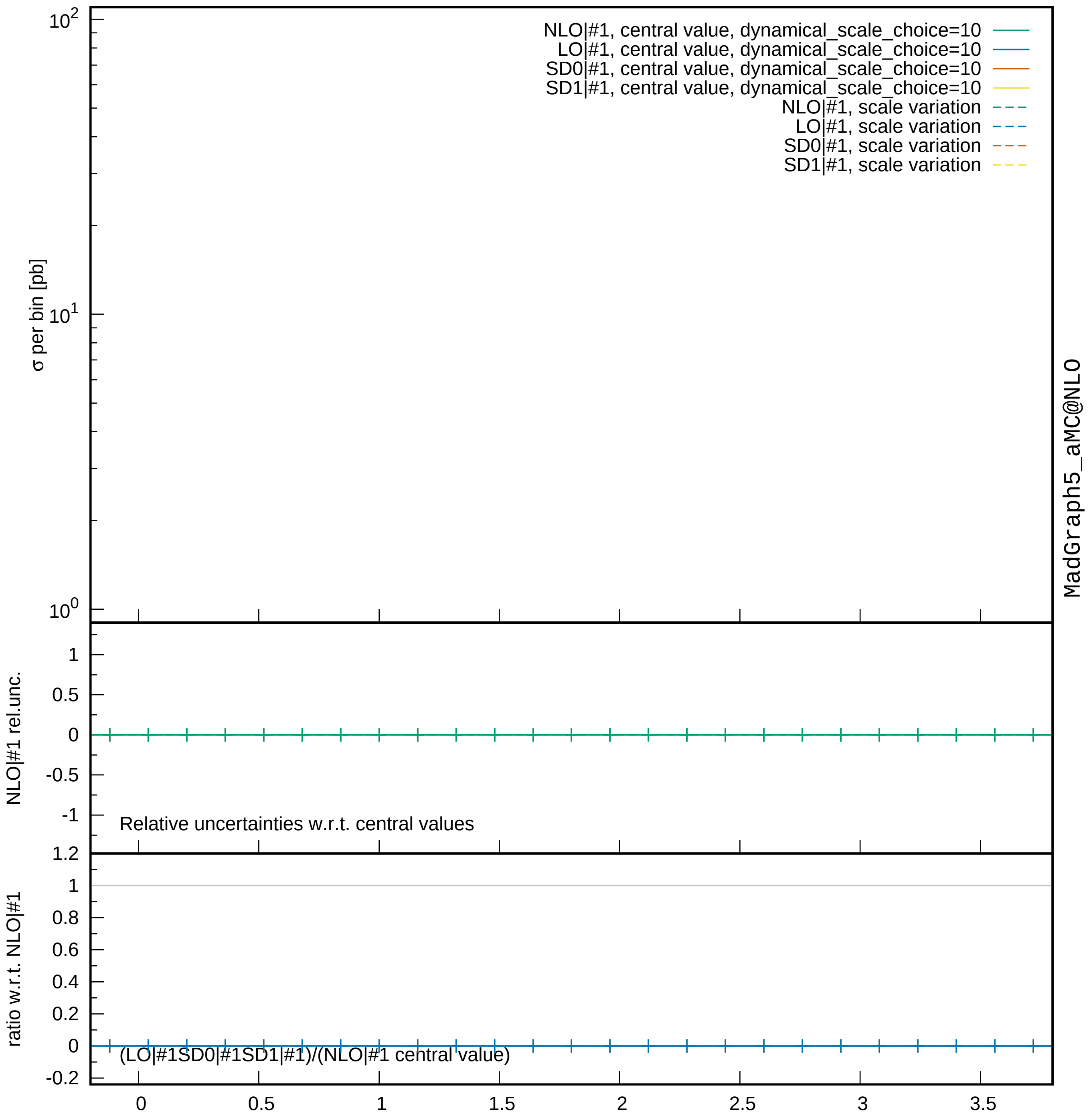

1st charged lepton log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

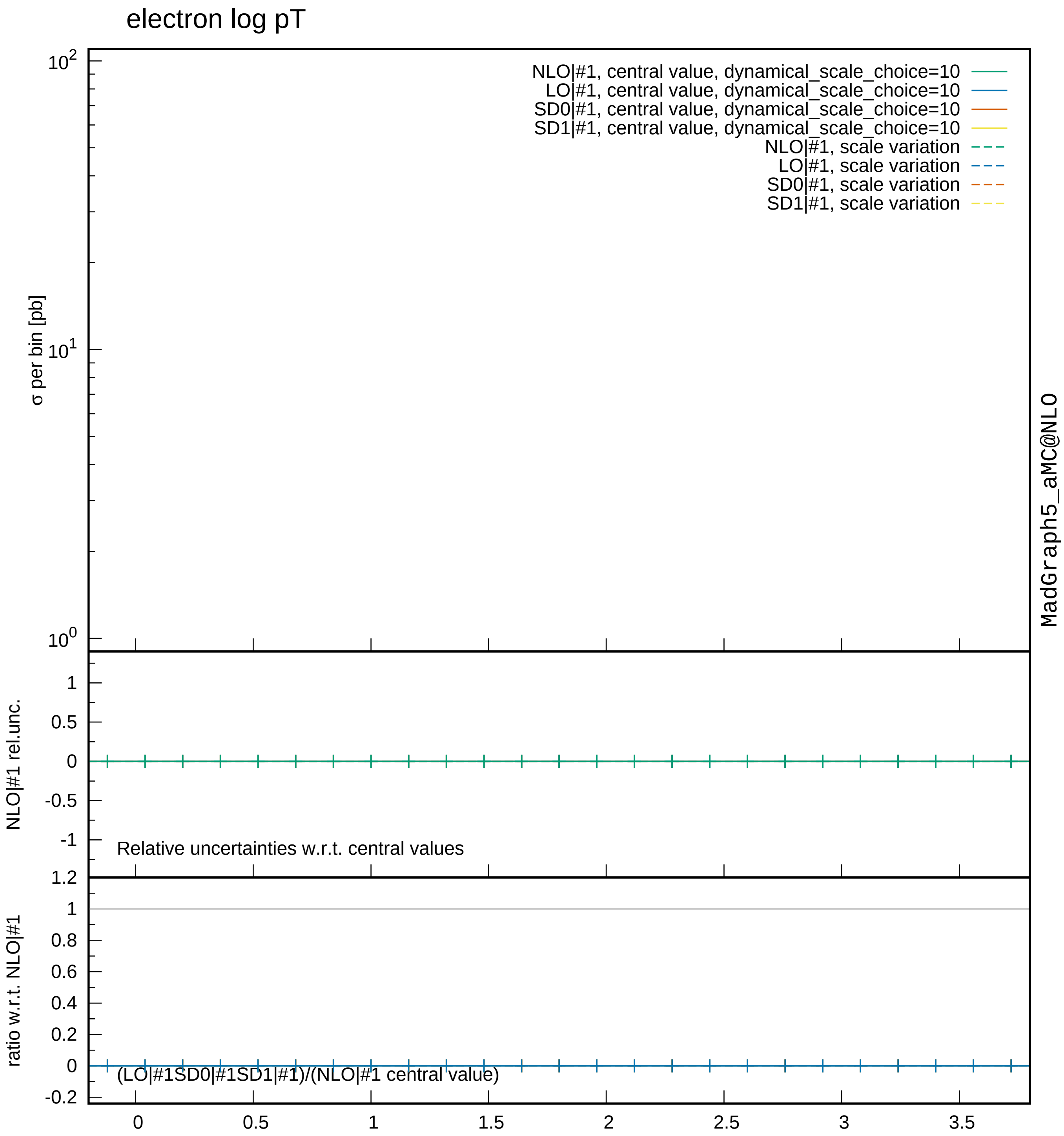

2nd charged lepton log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

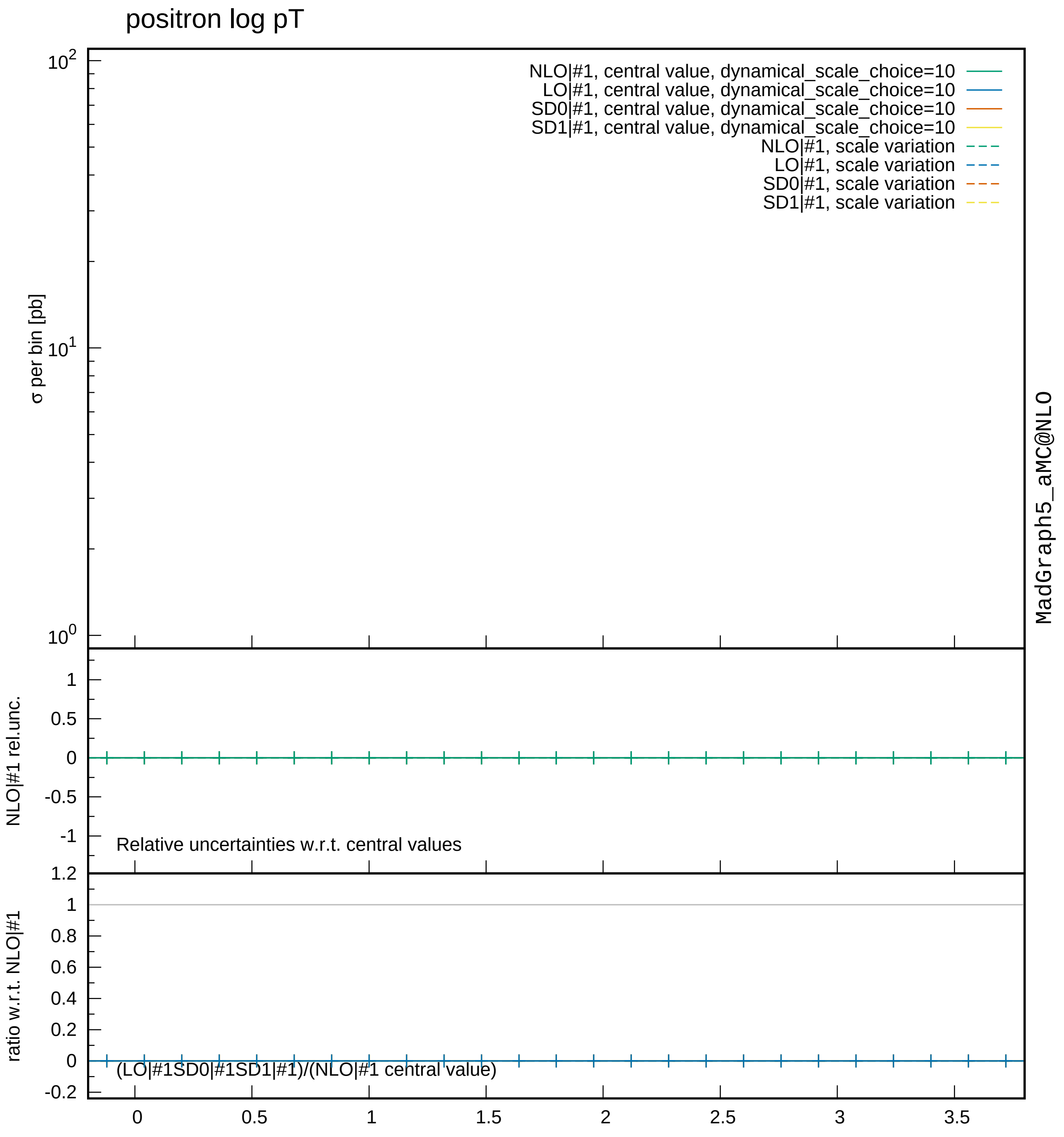
3rd charged lepton log pT

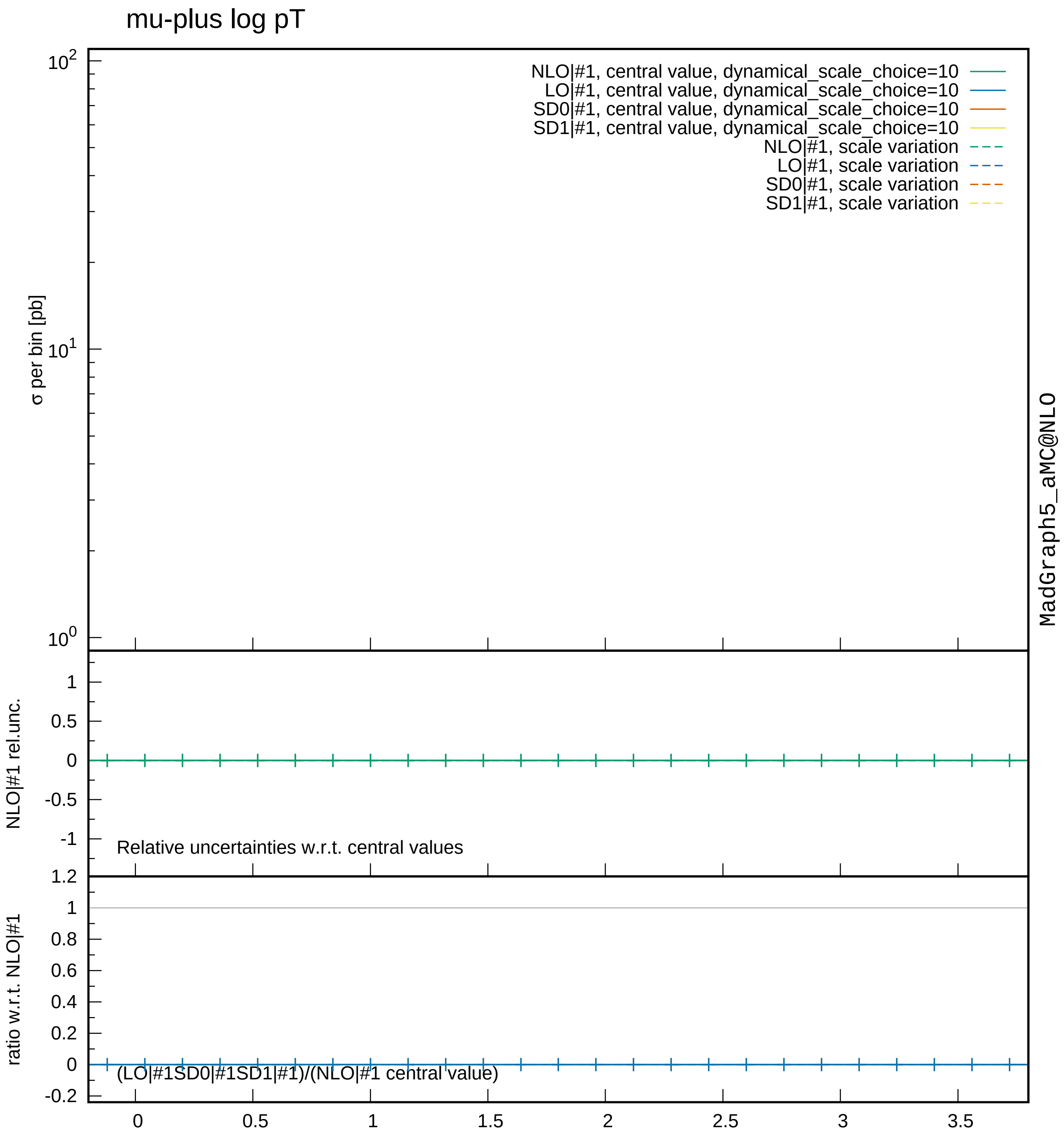


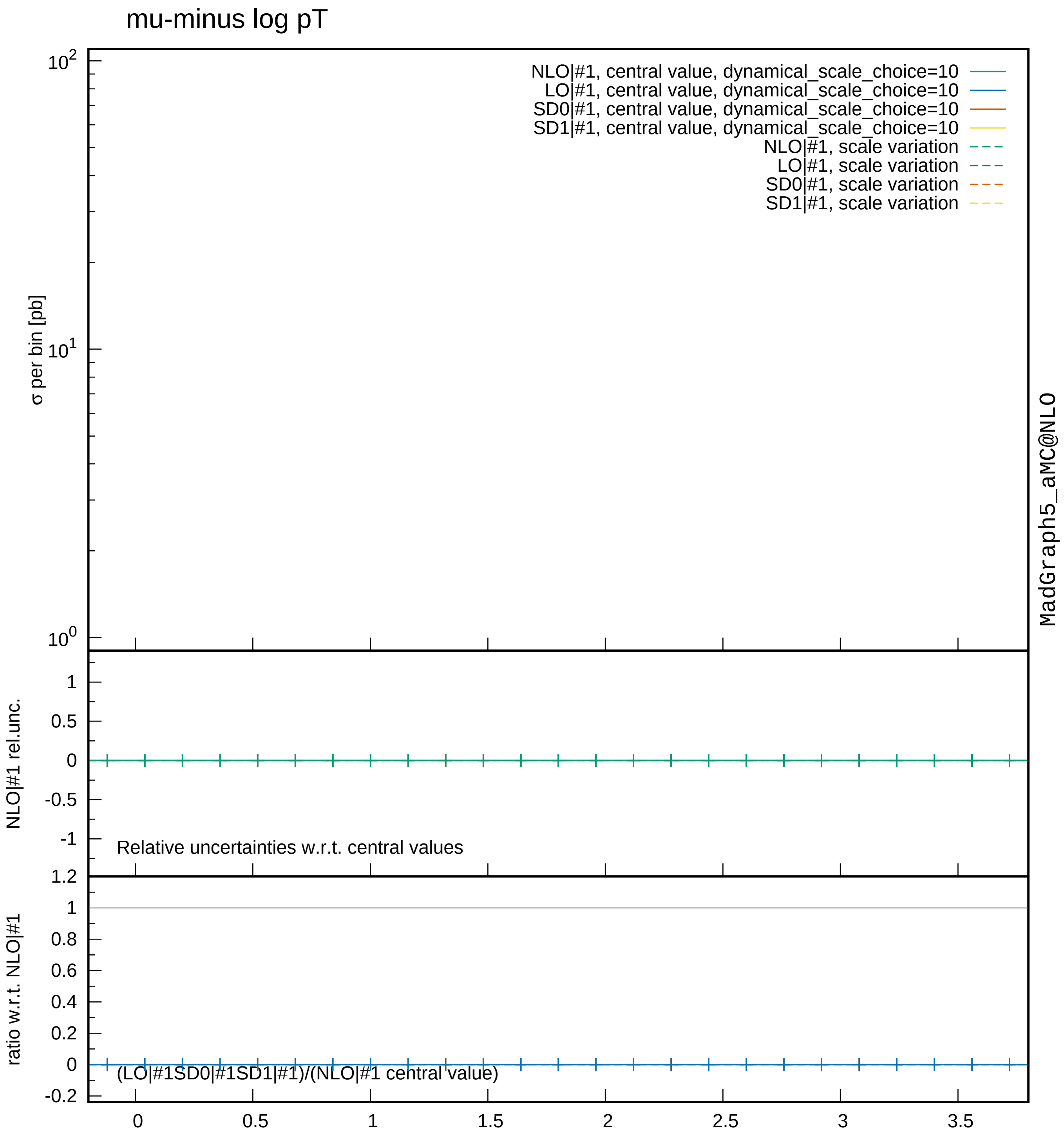
4th charged lepton log pT

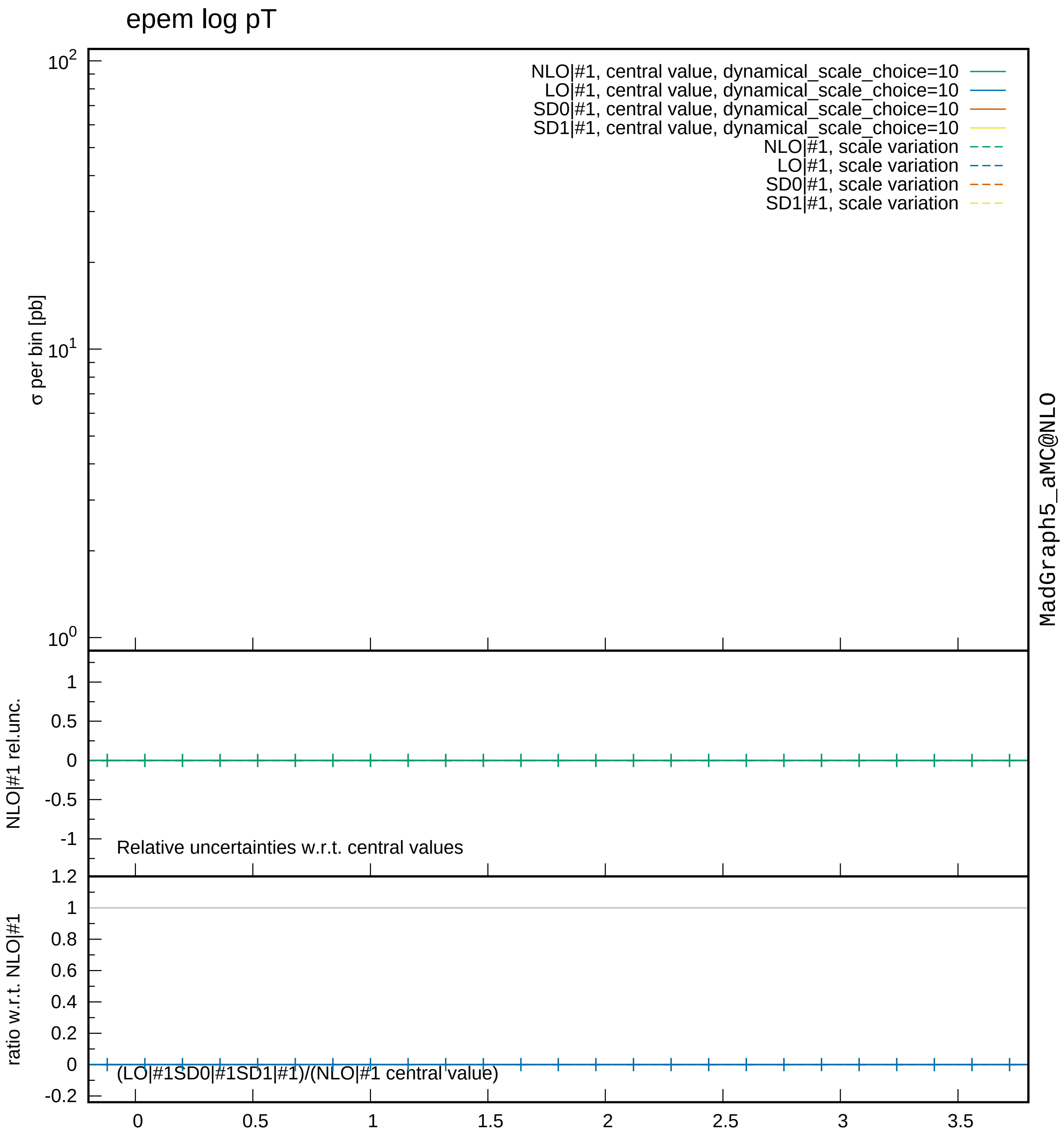


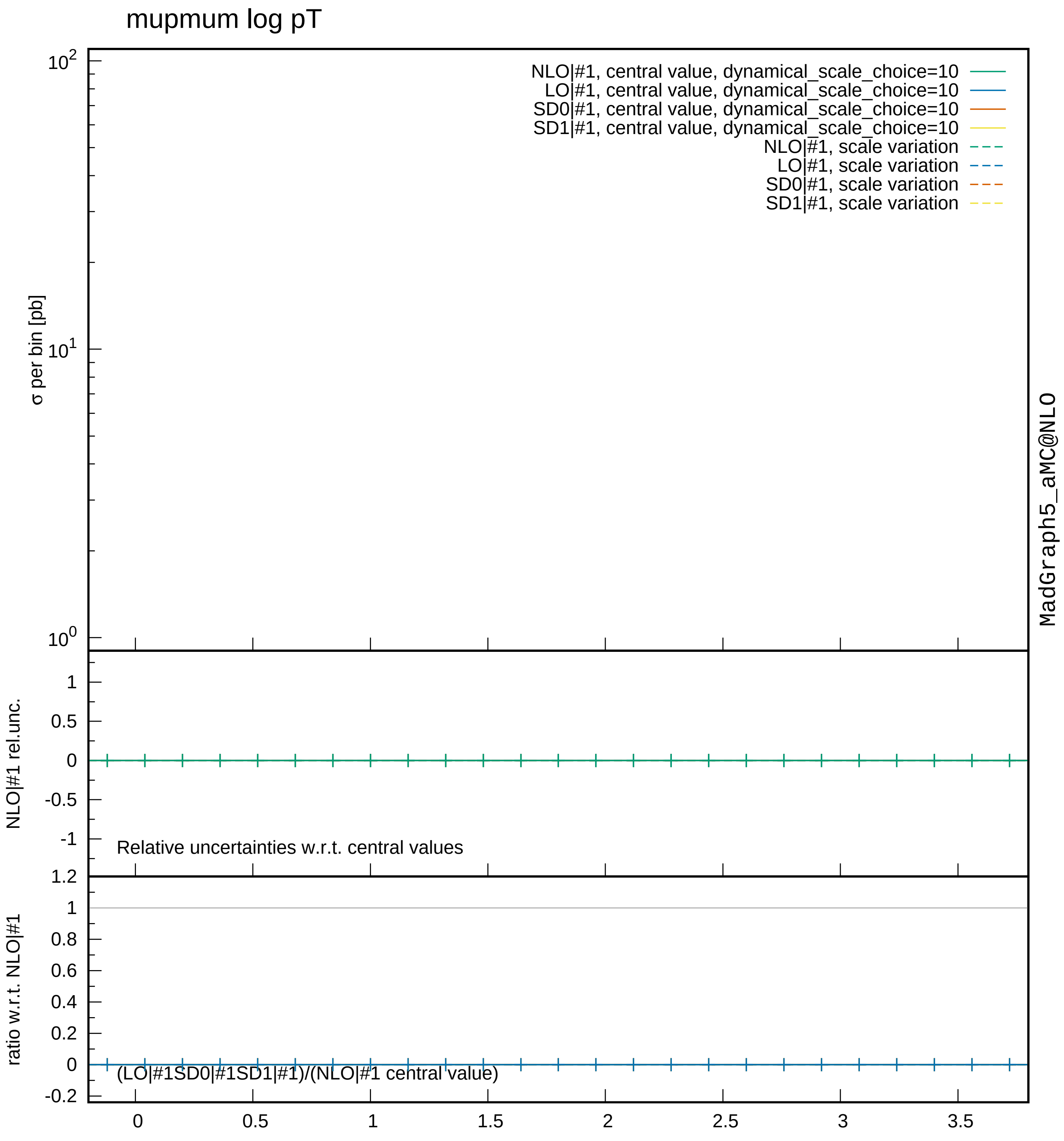

electron log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


positron log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

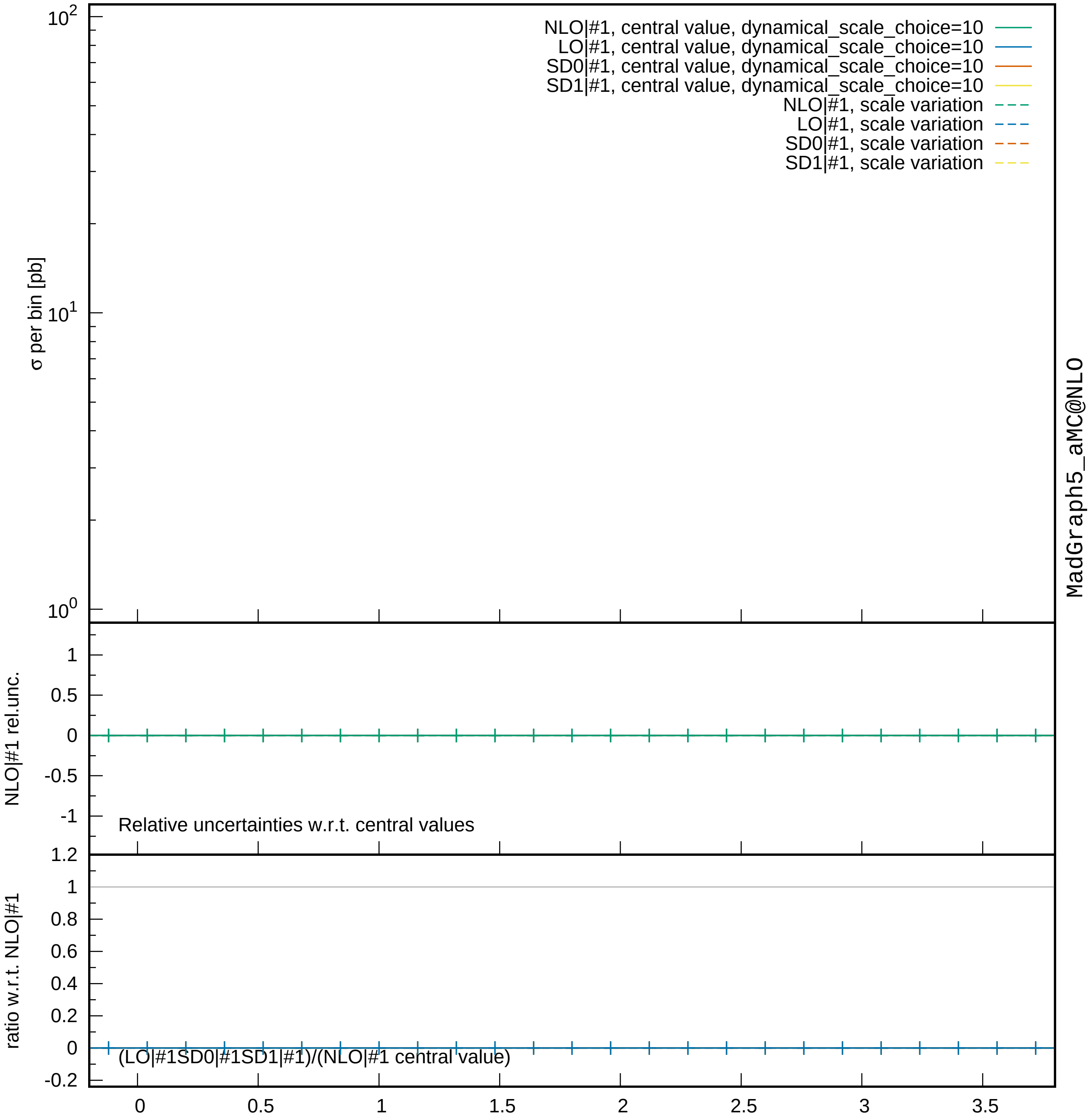

mu-plus log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


mu-minus log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

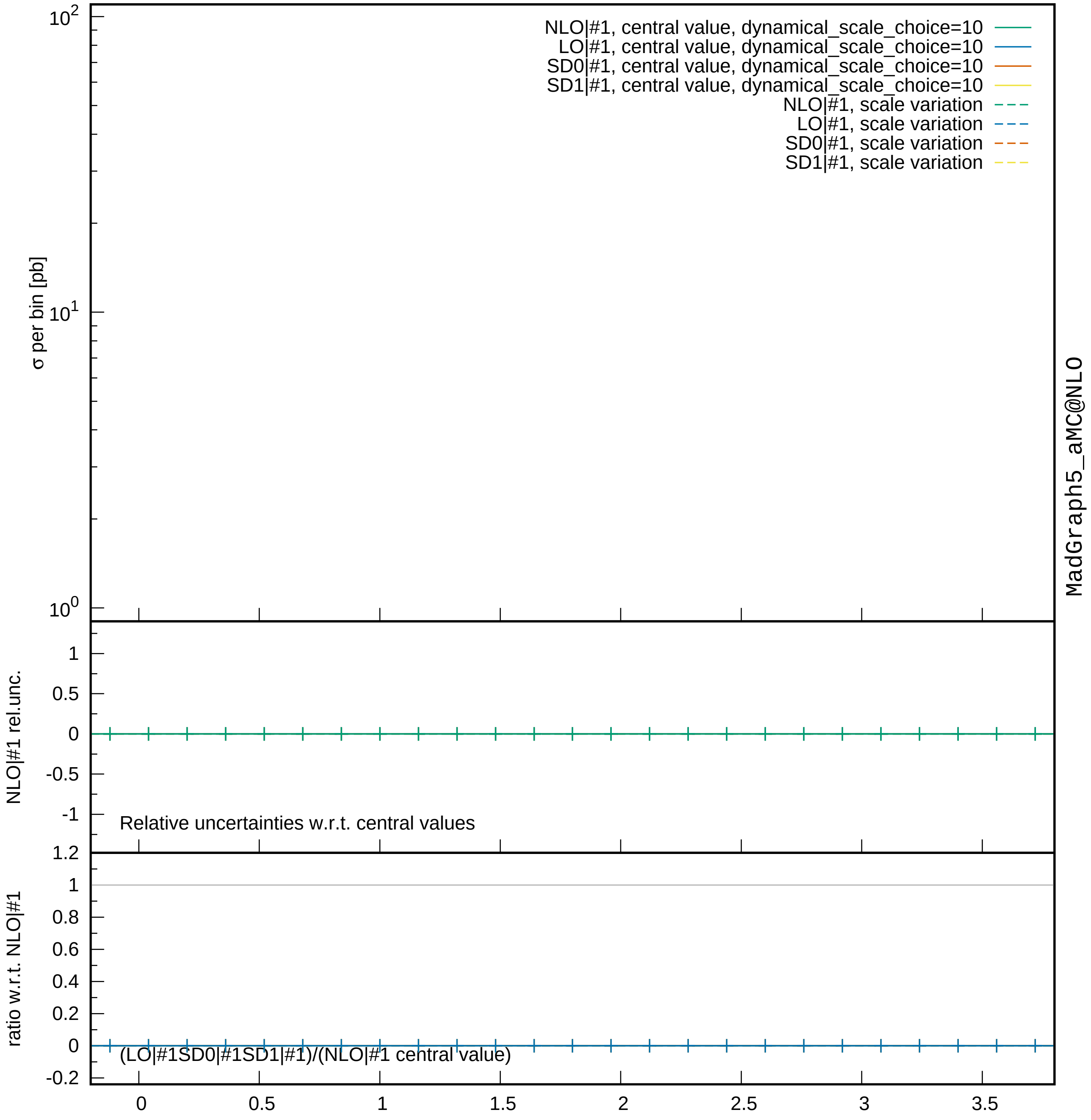

epem log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


mupmum log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

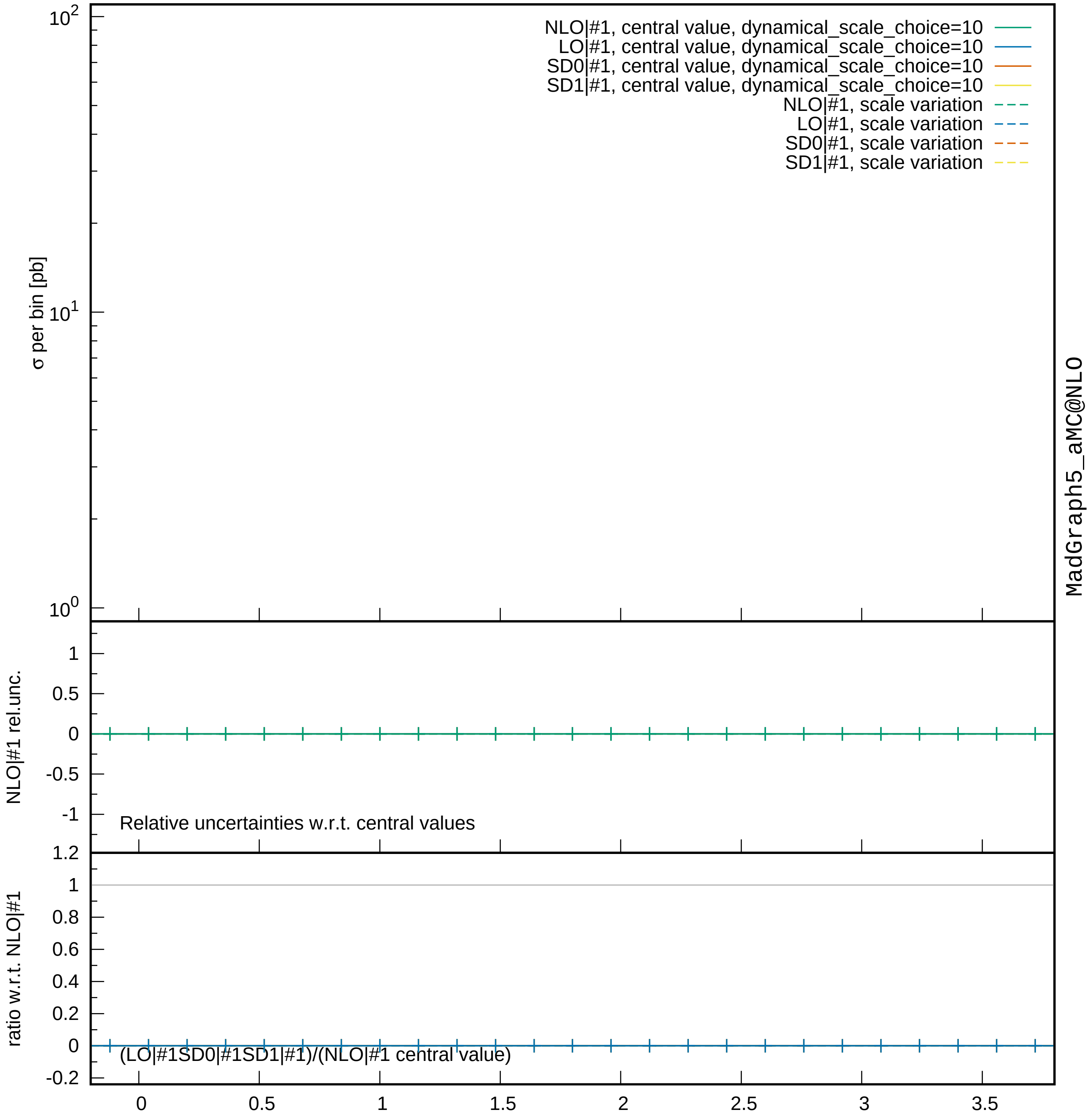
1st OSSF lep pair log pT



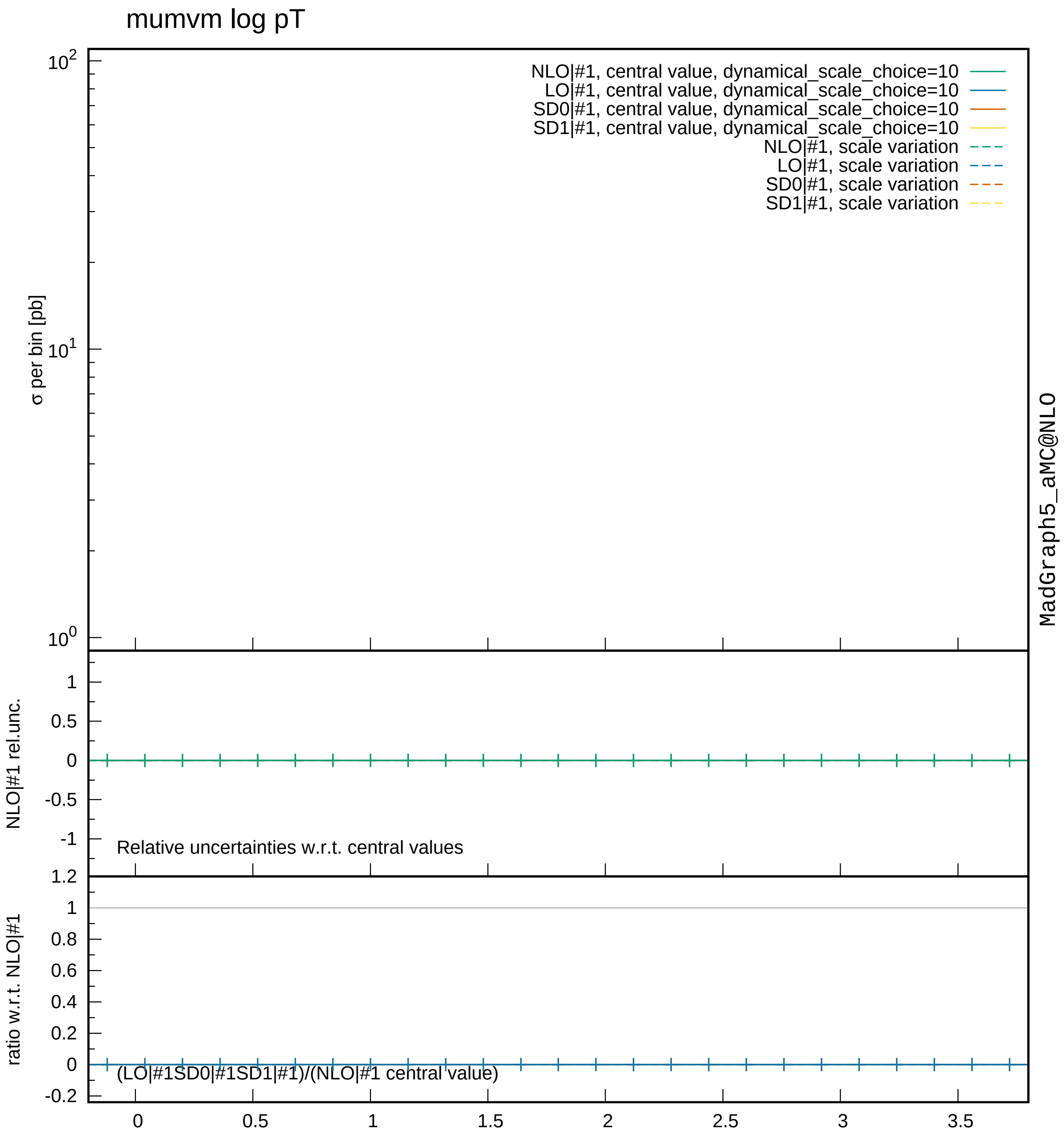
2nd OSSF lep pair log pT

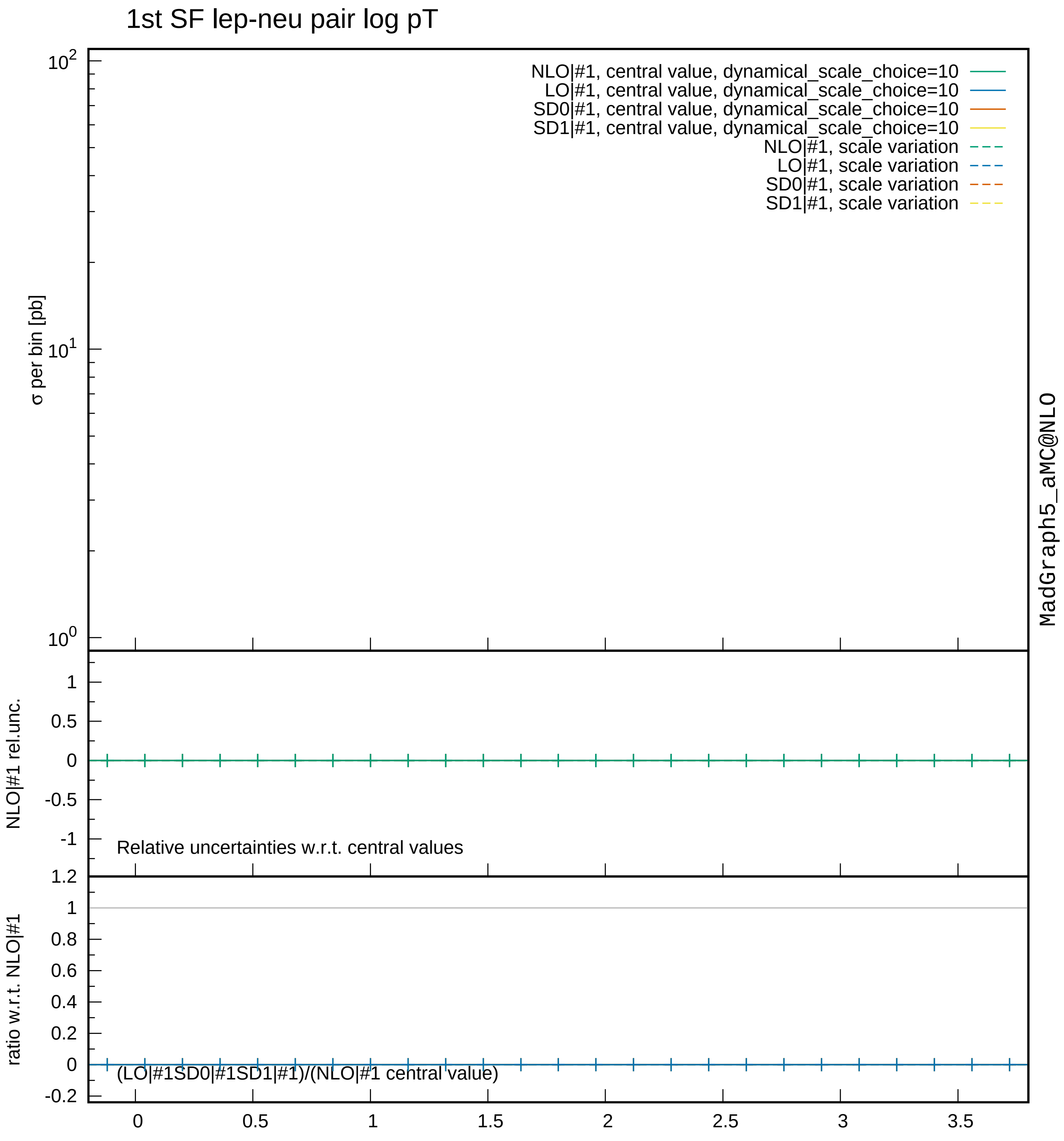


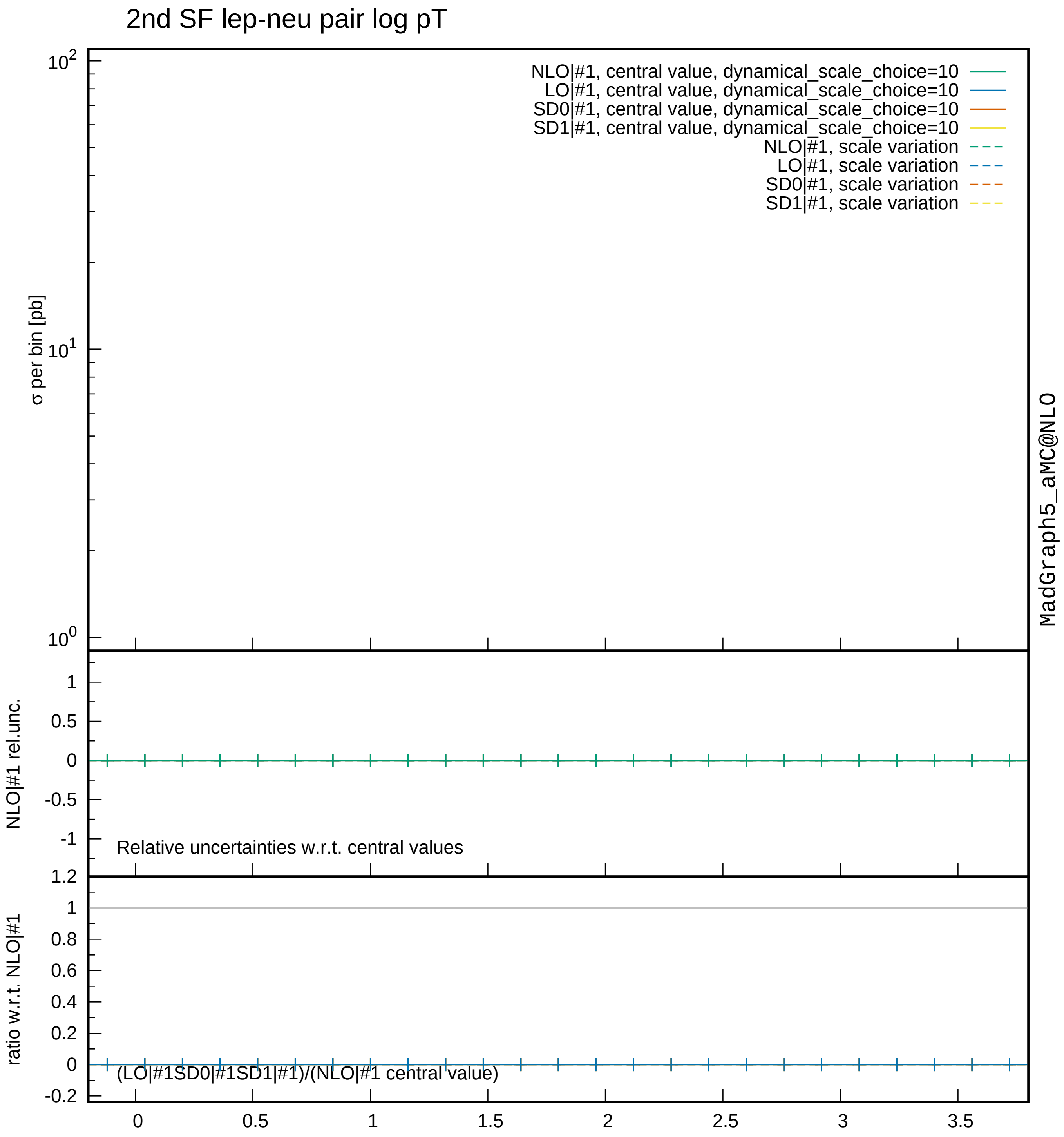
epve log pT

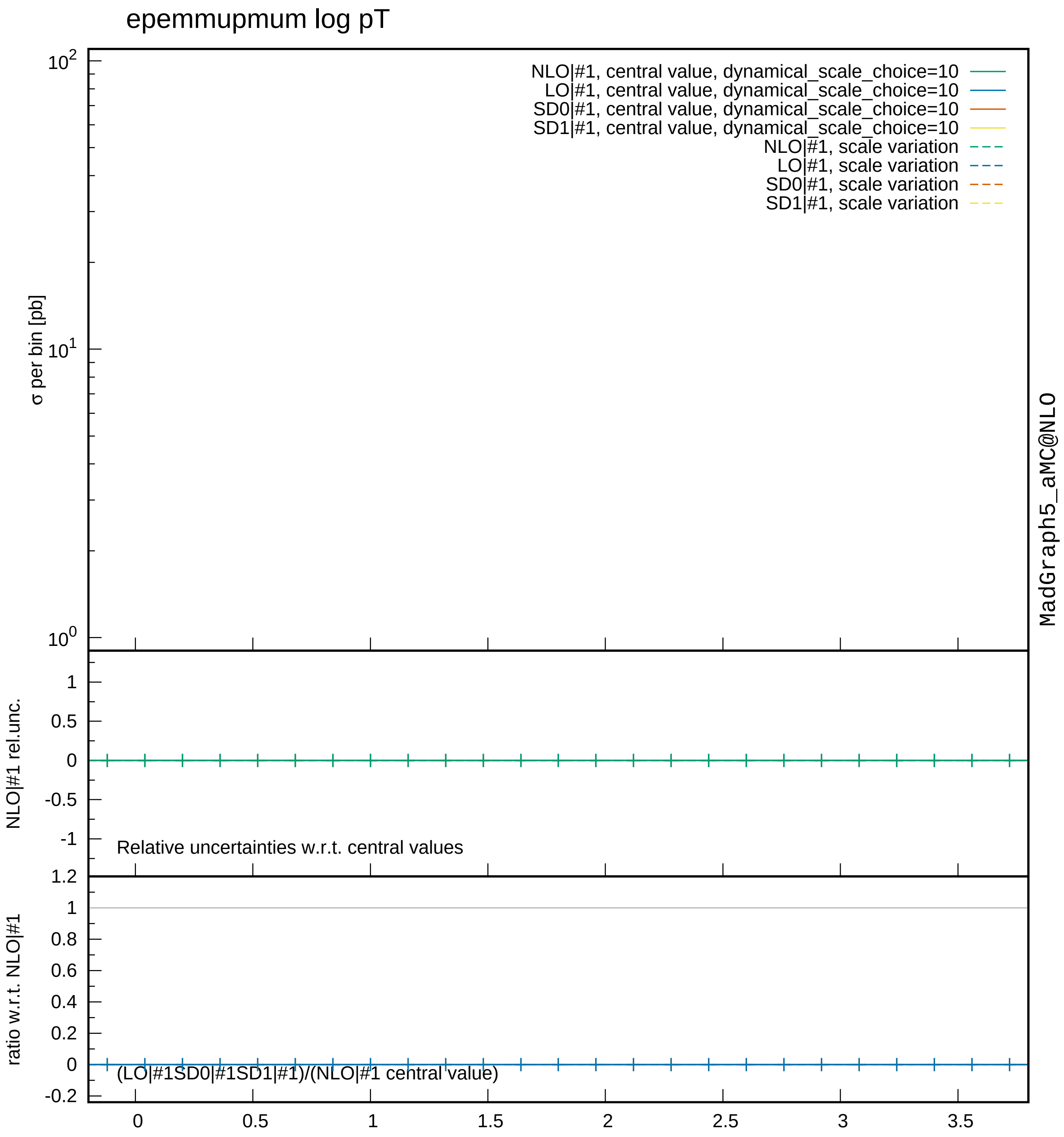


NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

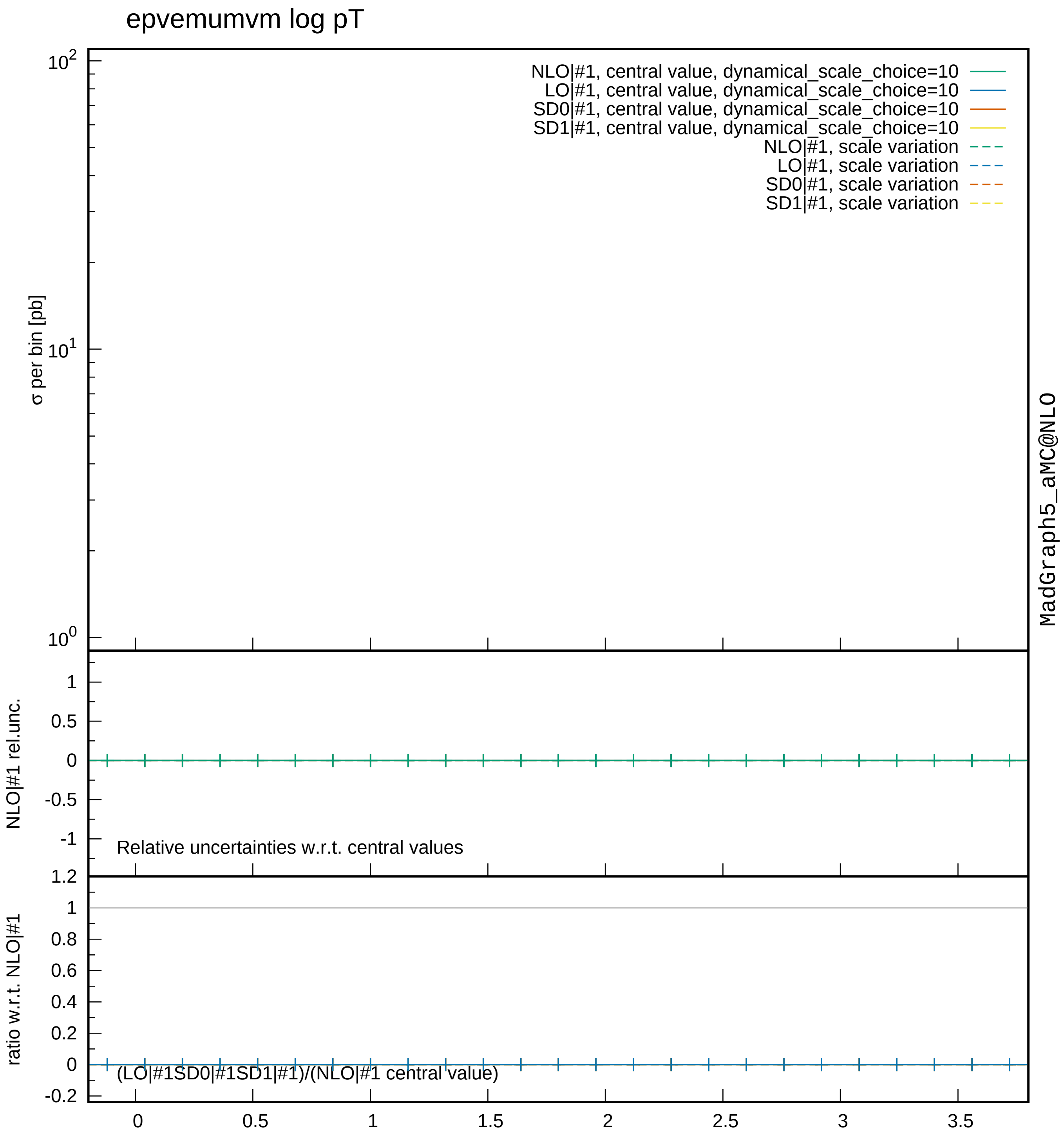

mumvm log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

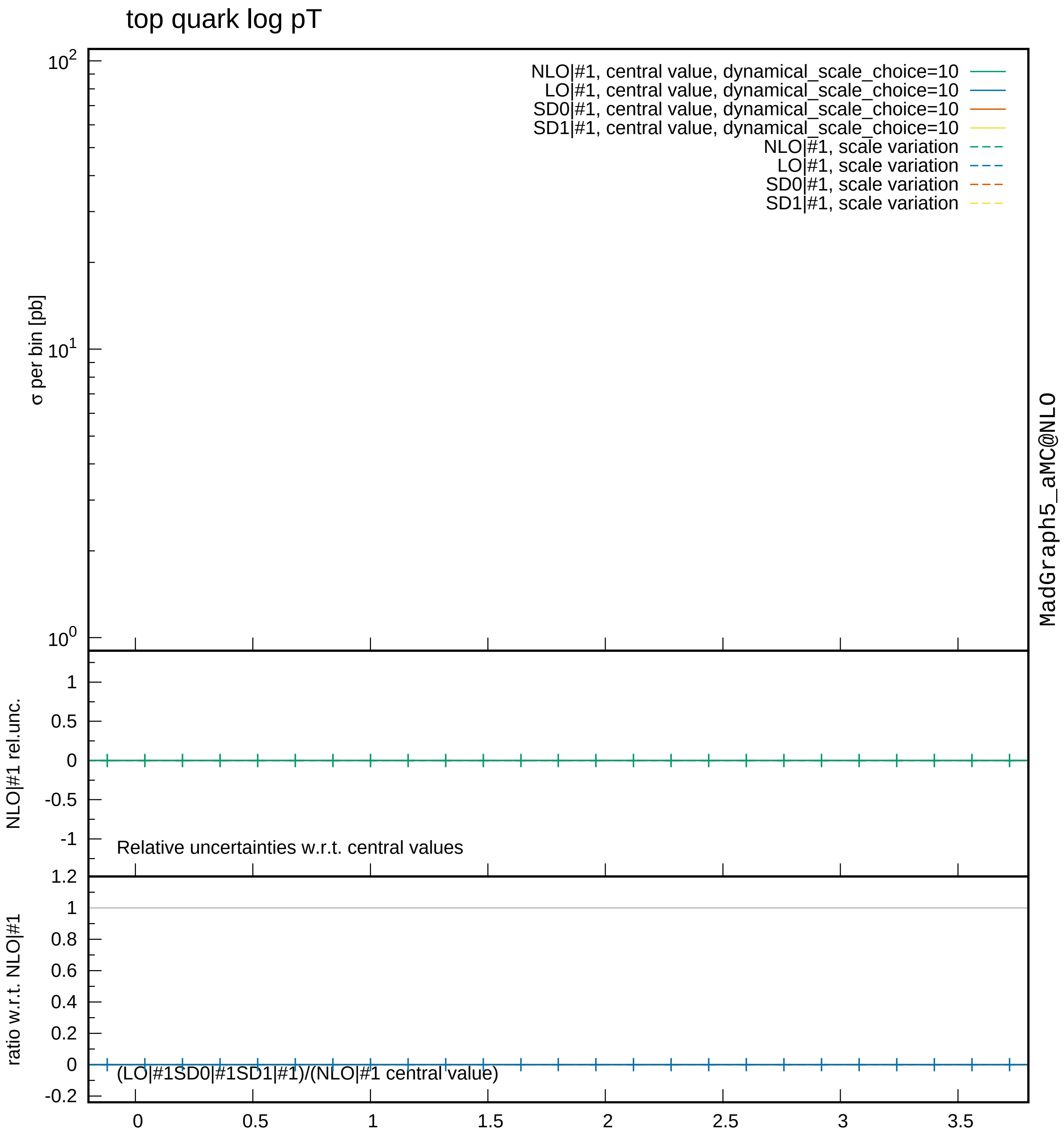

1st SF lep-neu pair log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

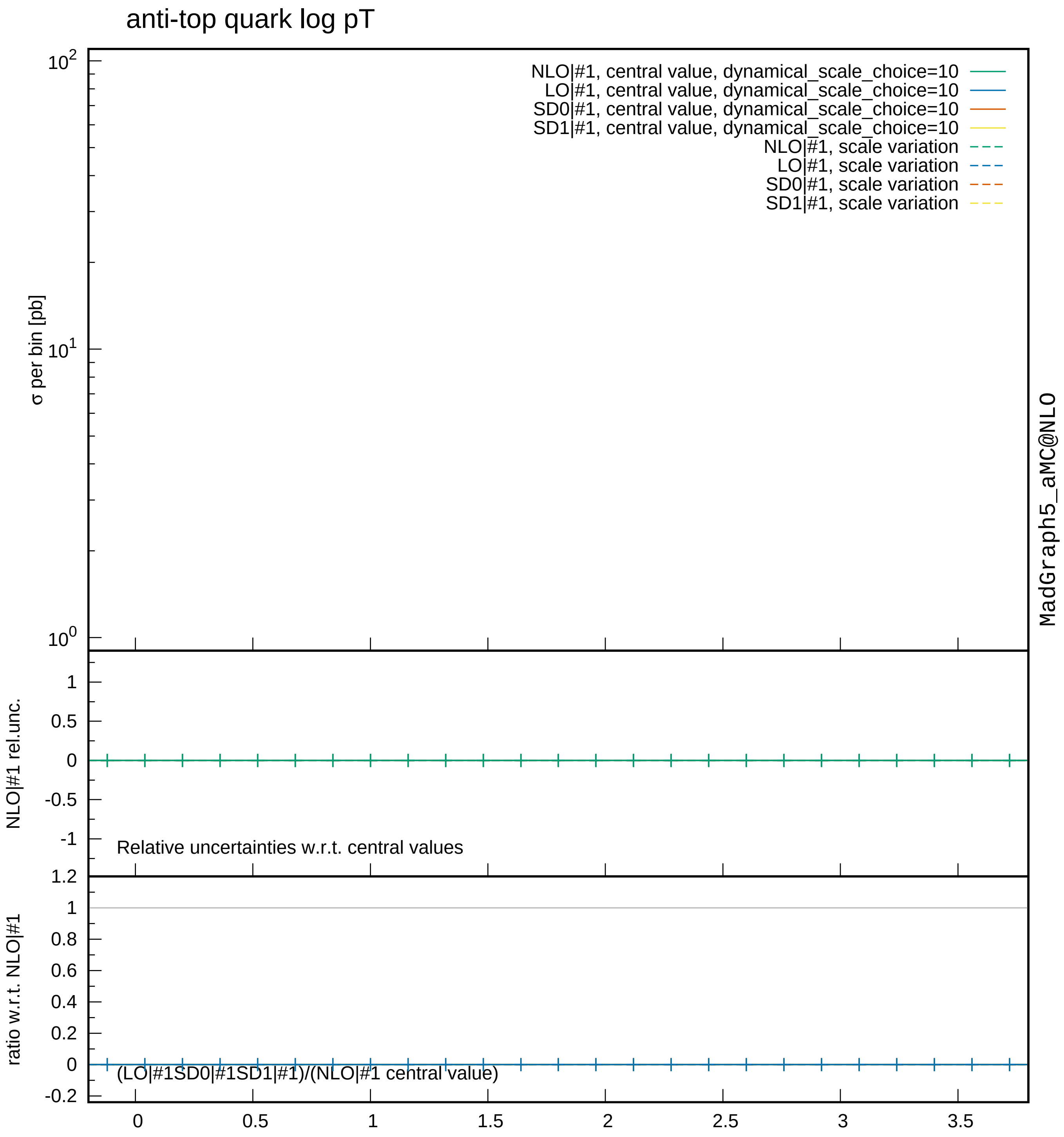

2nd SF lep-neu pair log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

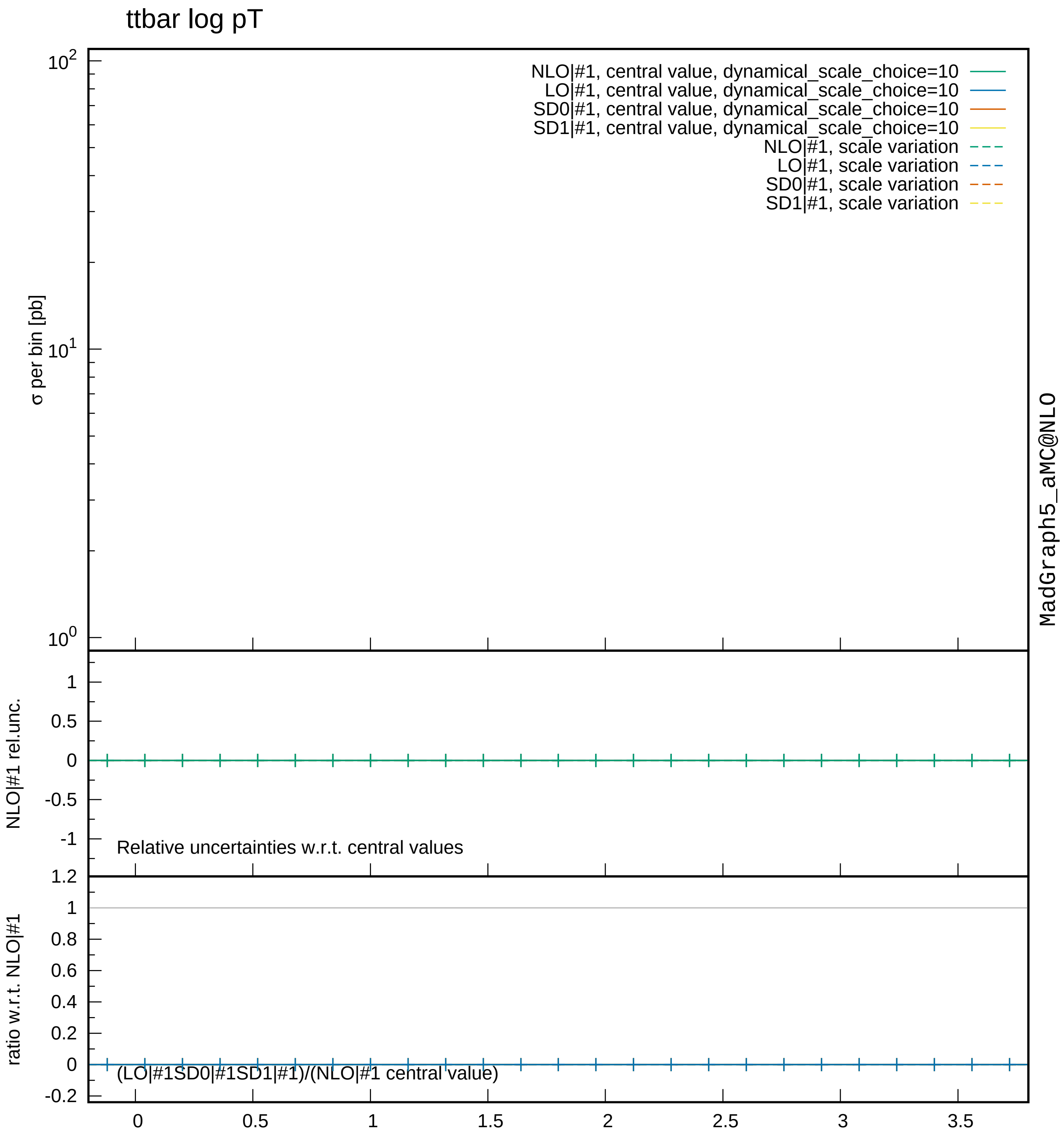


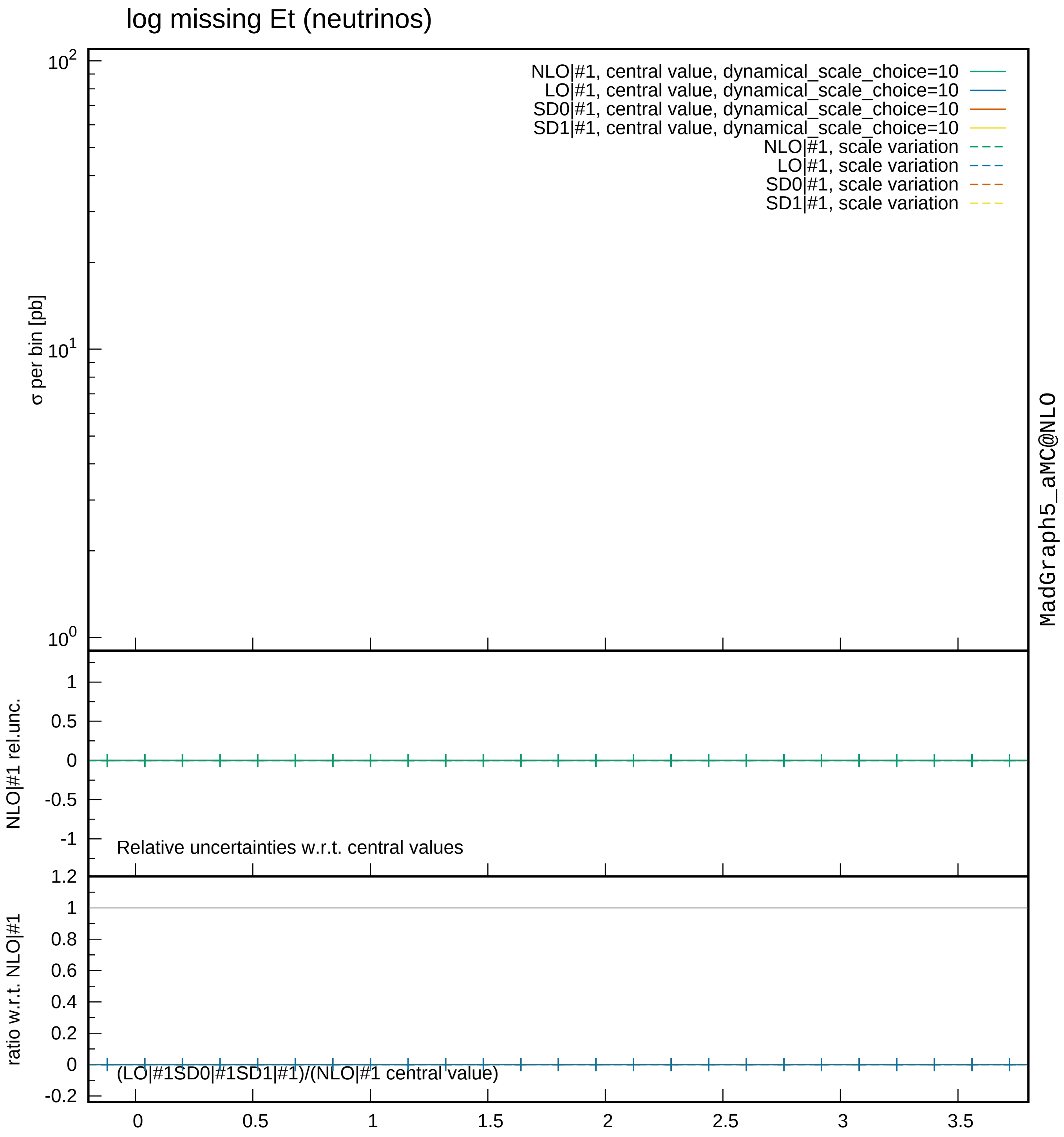
epemmupmum log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

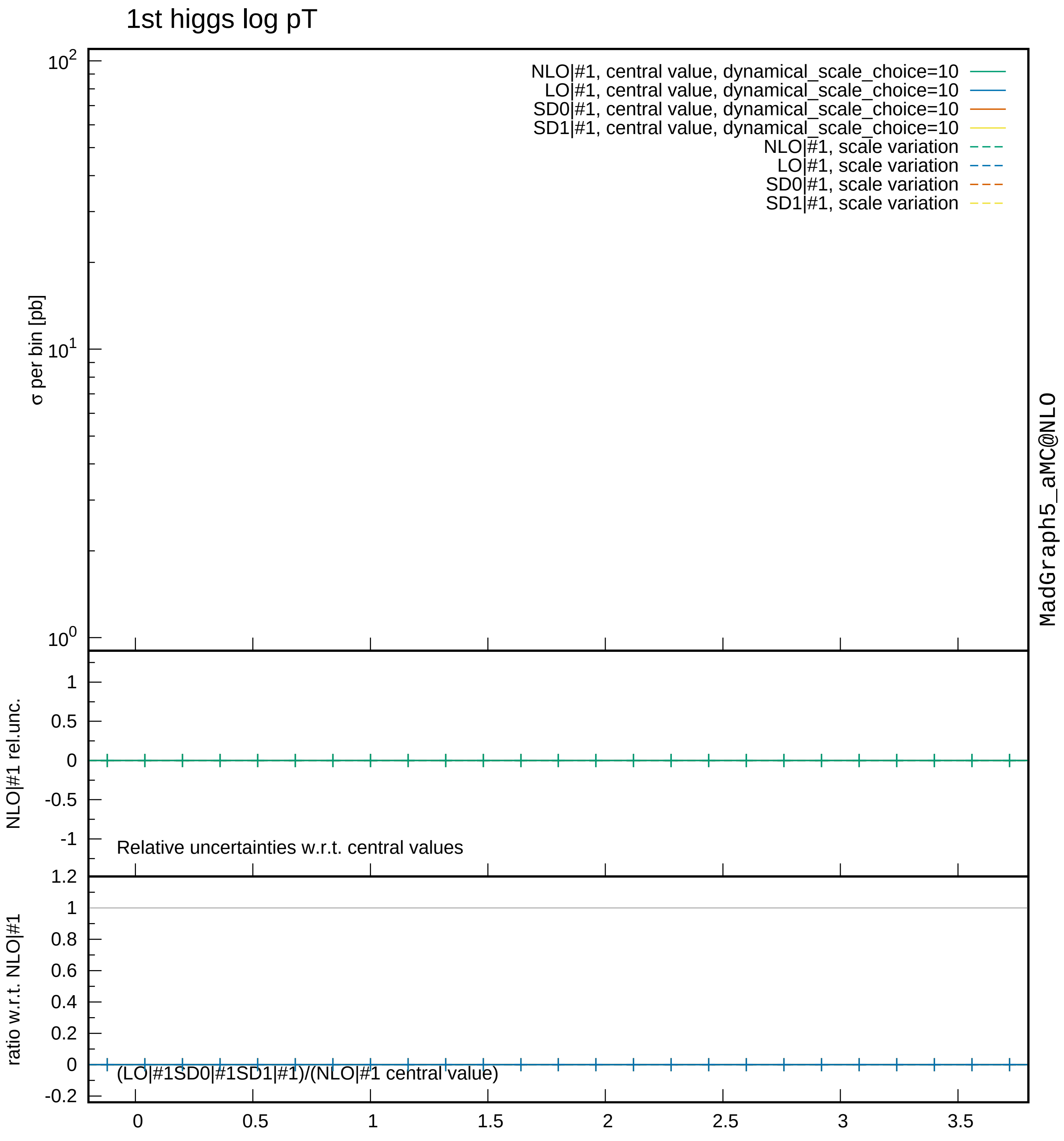

epvemumvm log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

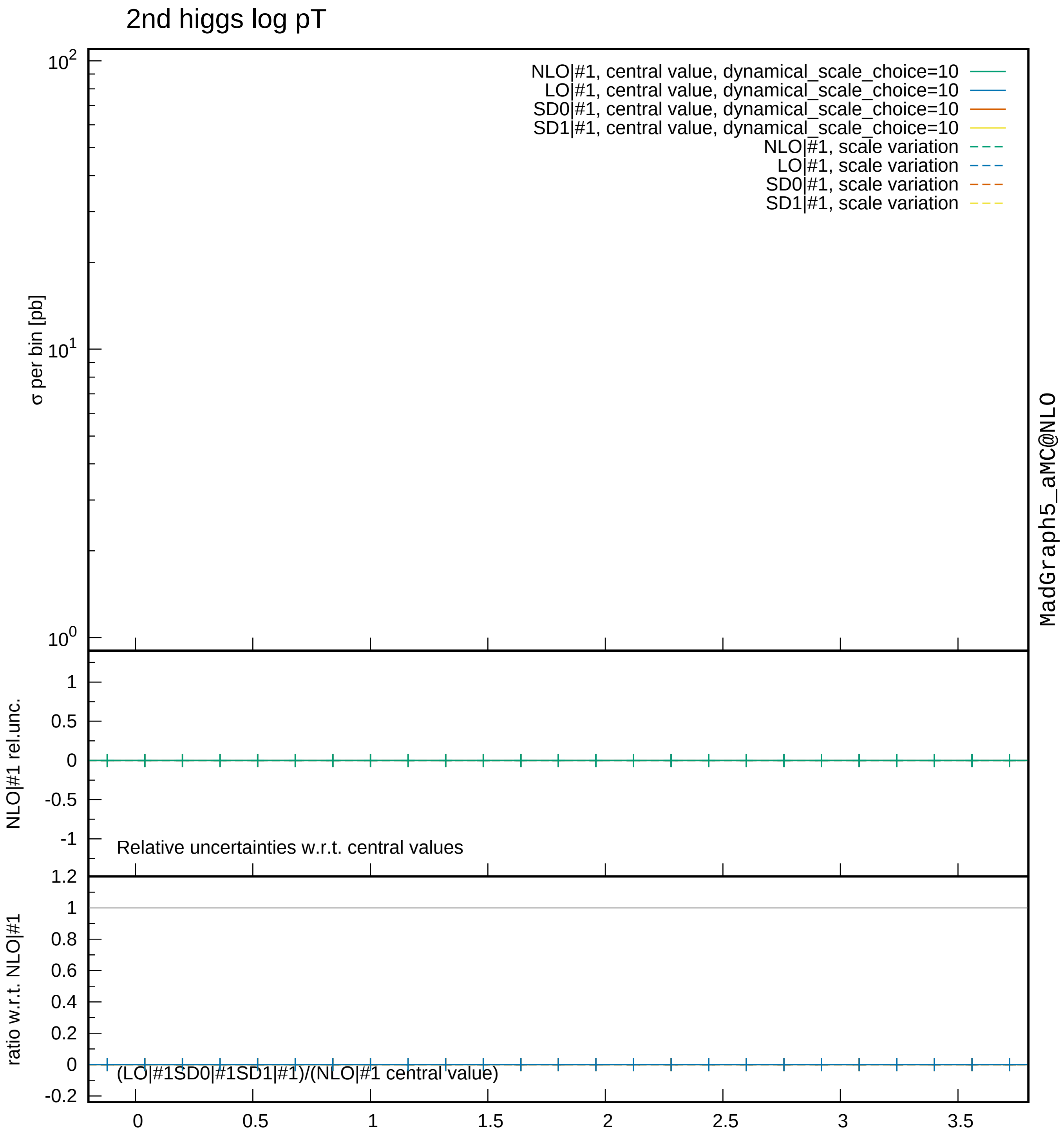

top quark log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

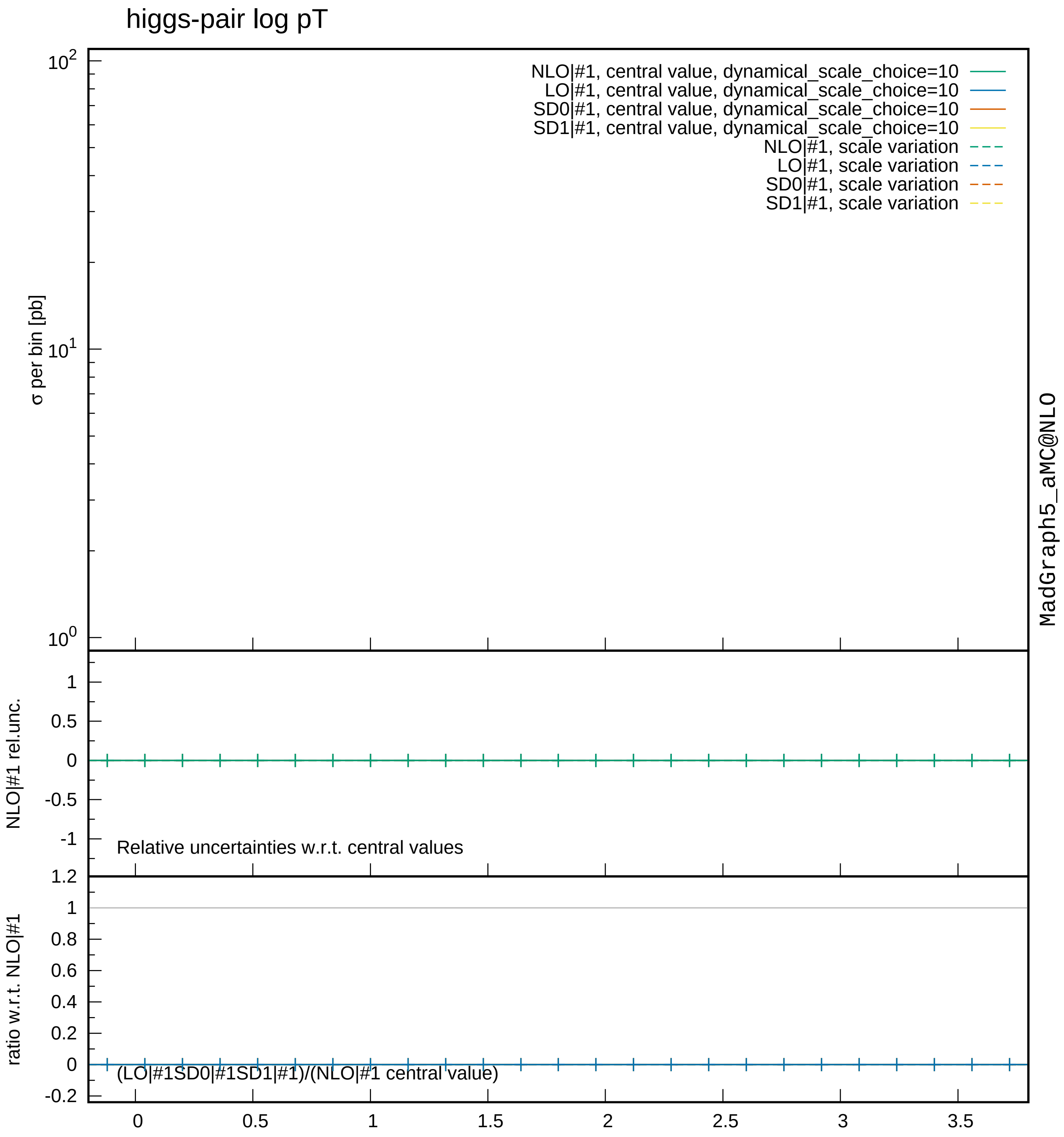

anti-top quark log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


ttbar log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

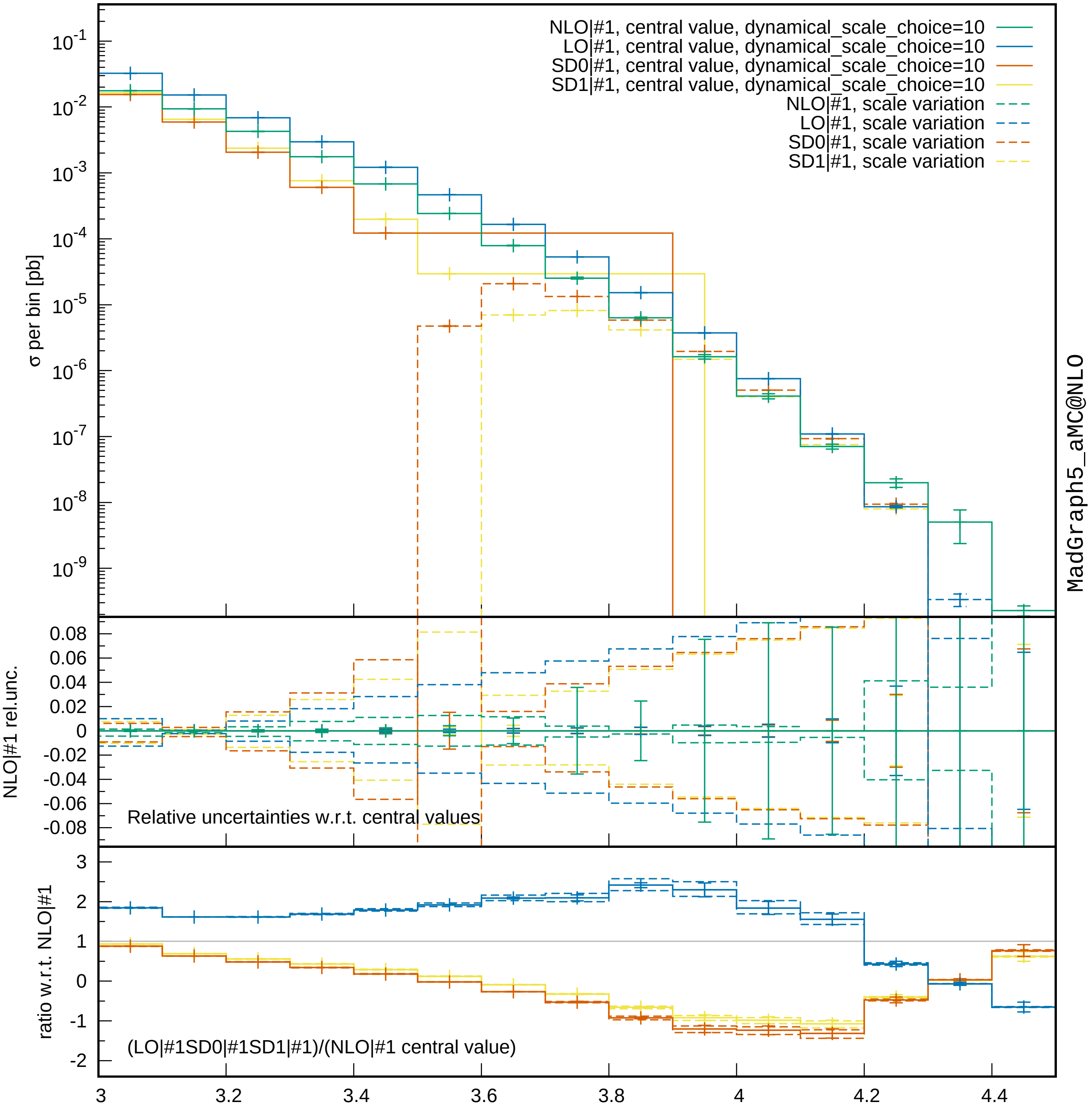

log missing Et (neutrinos)
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

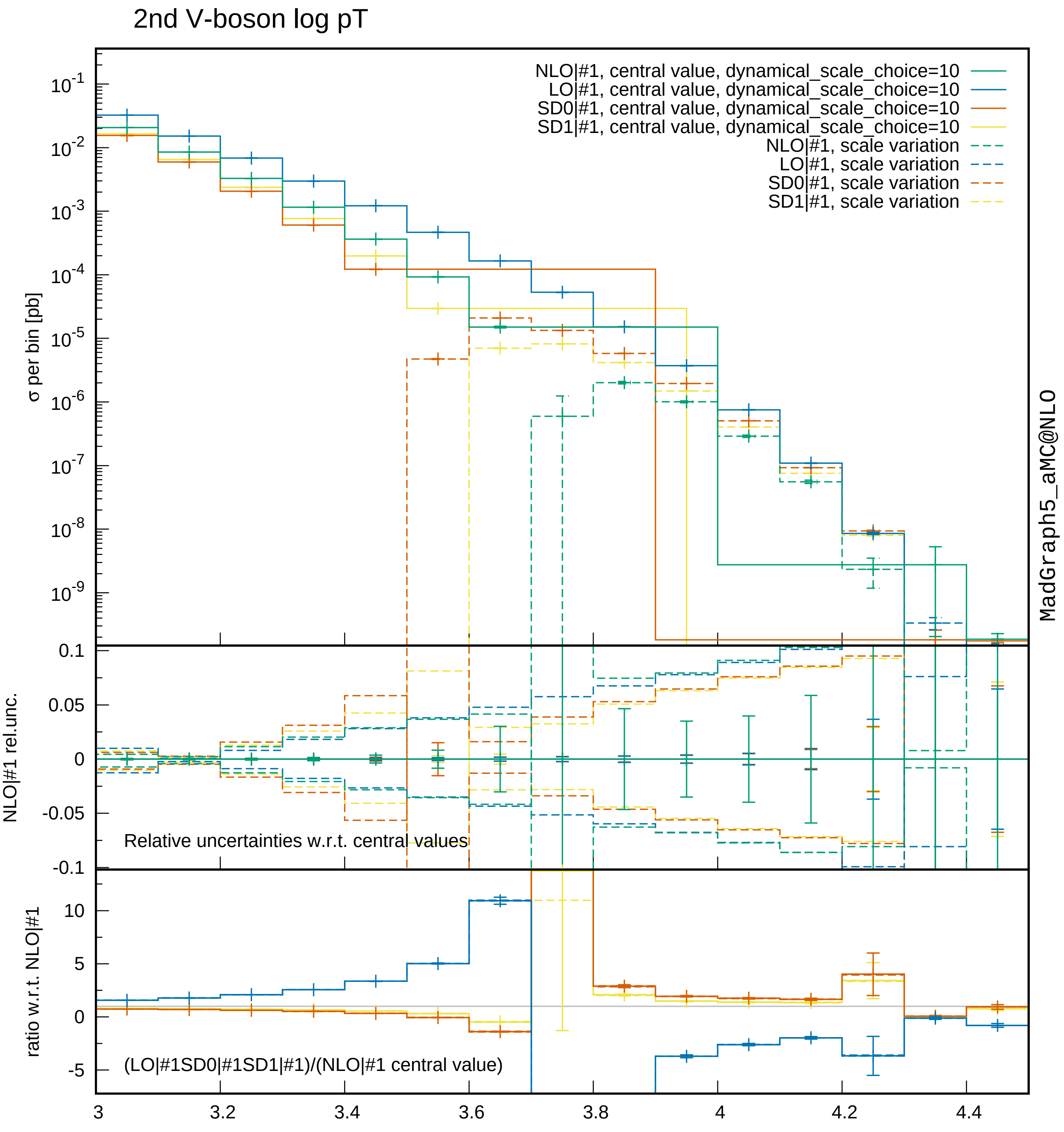

1st higgs log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

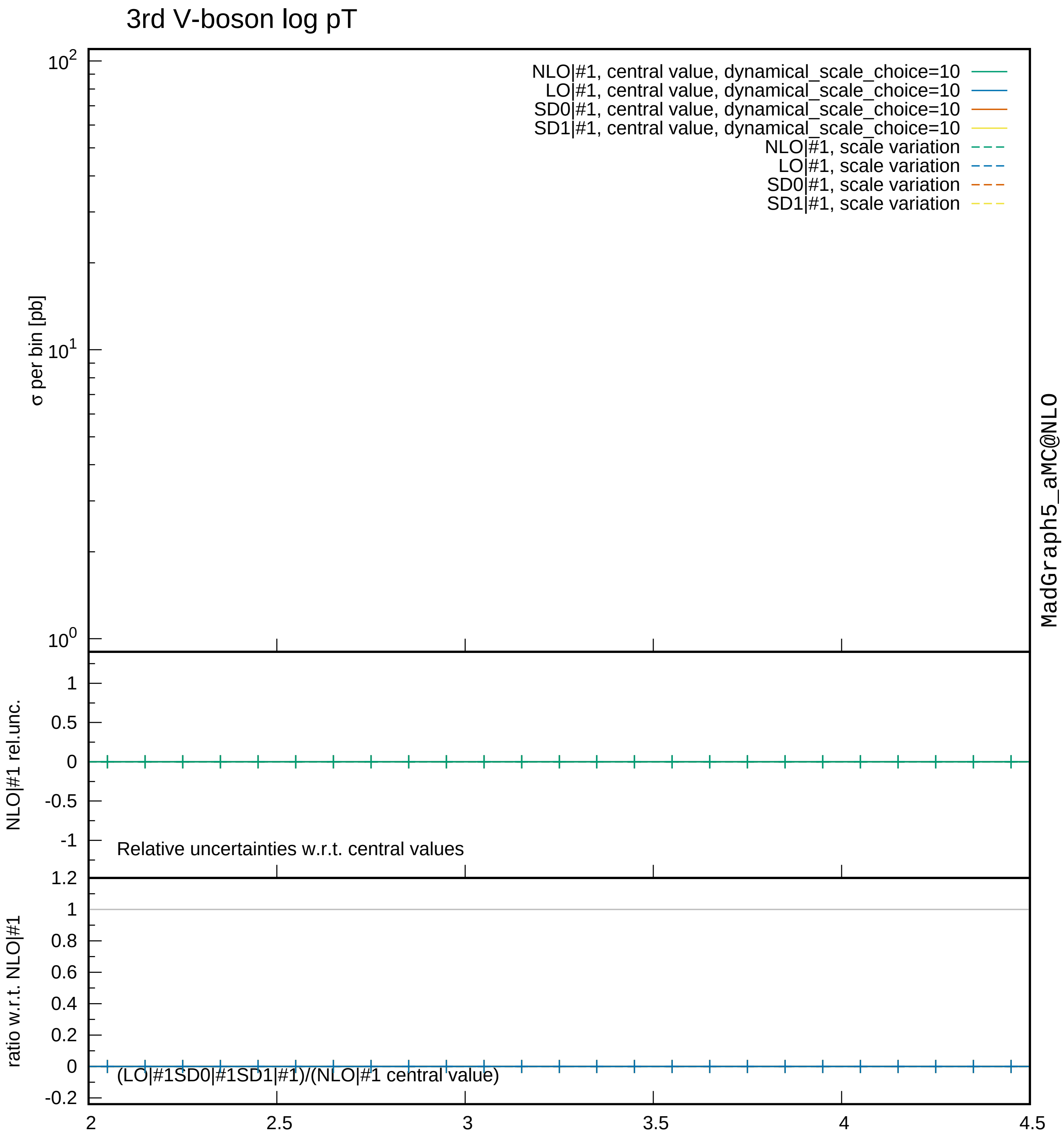

2nd higgs log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

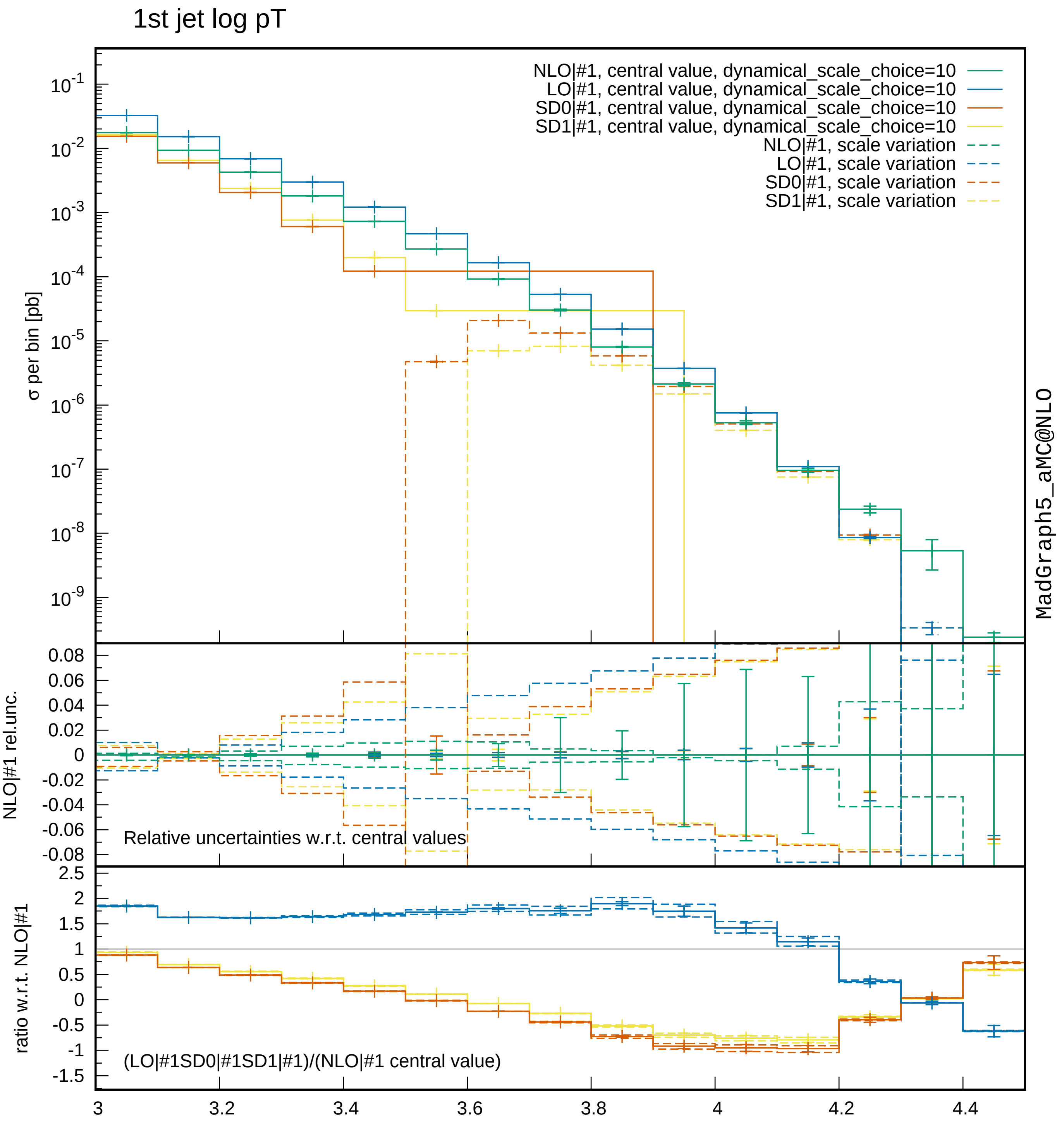

higgs-pair log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

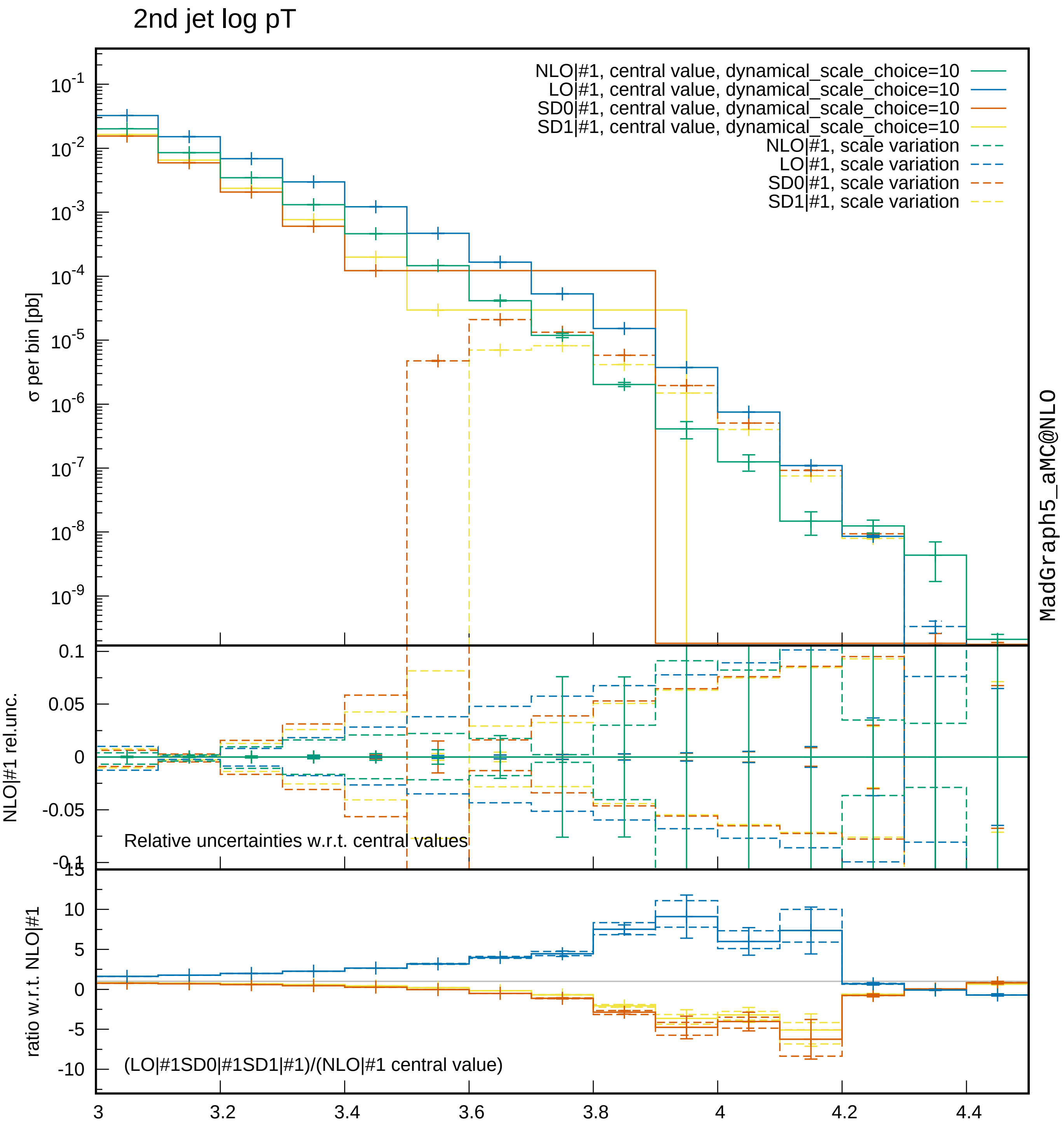
1st V-boson log pT

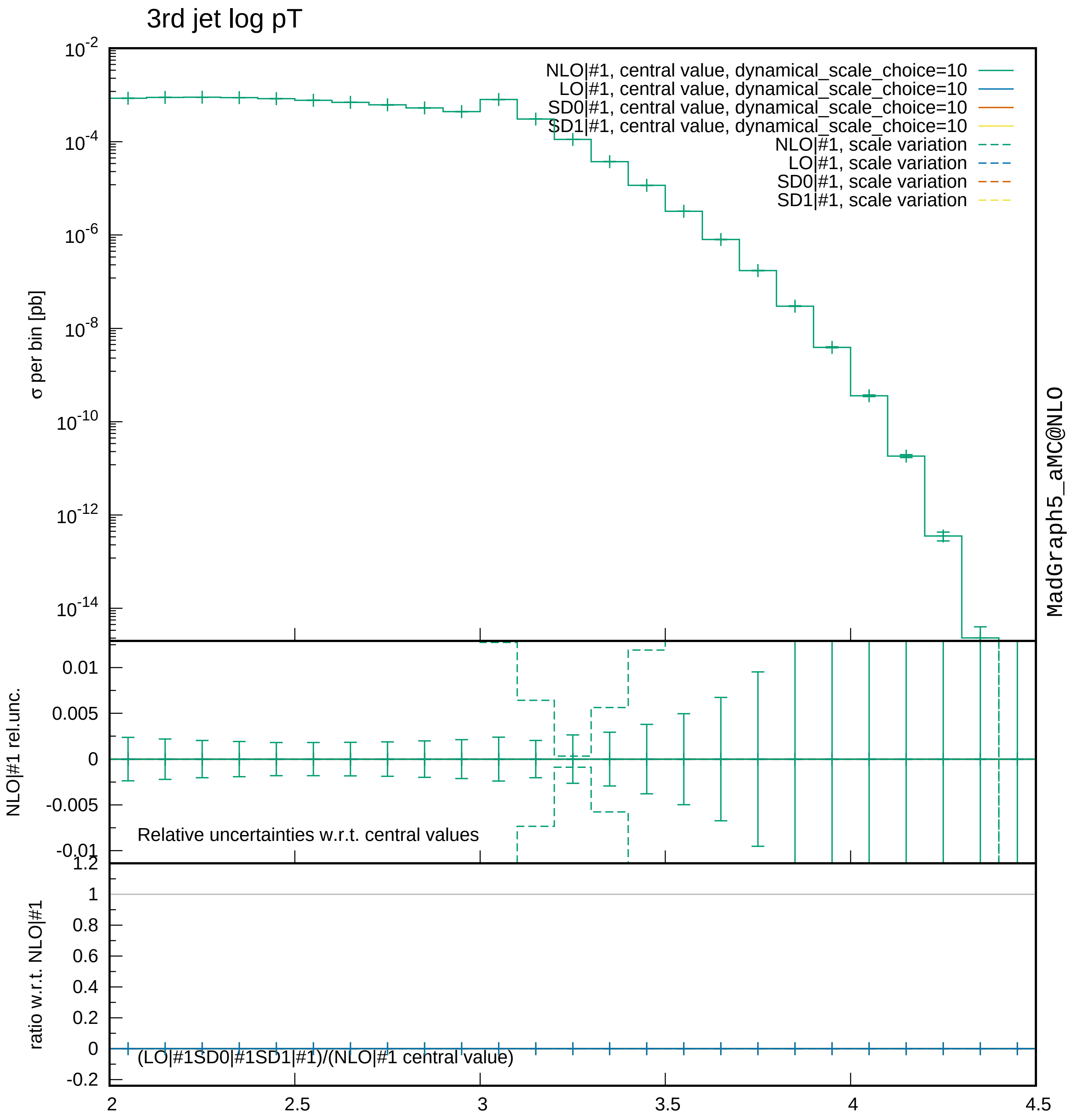


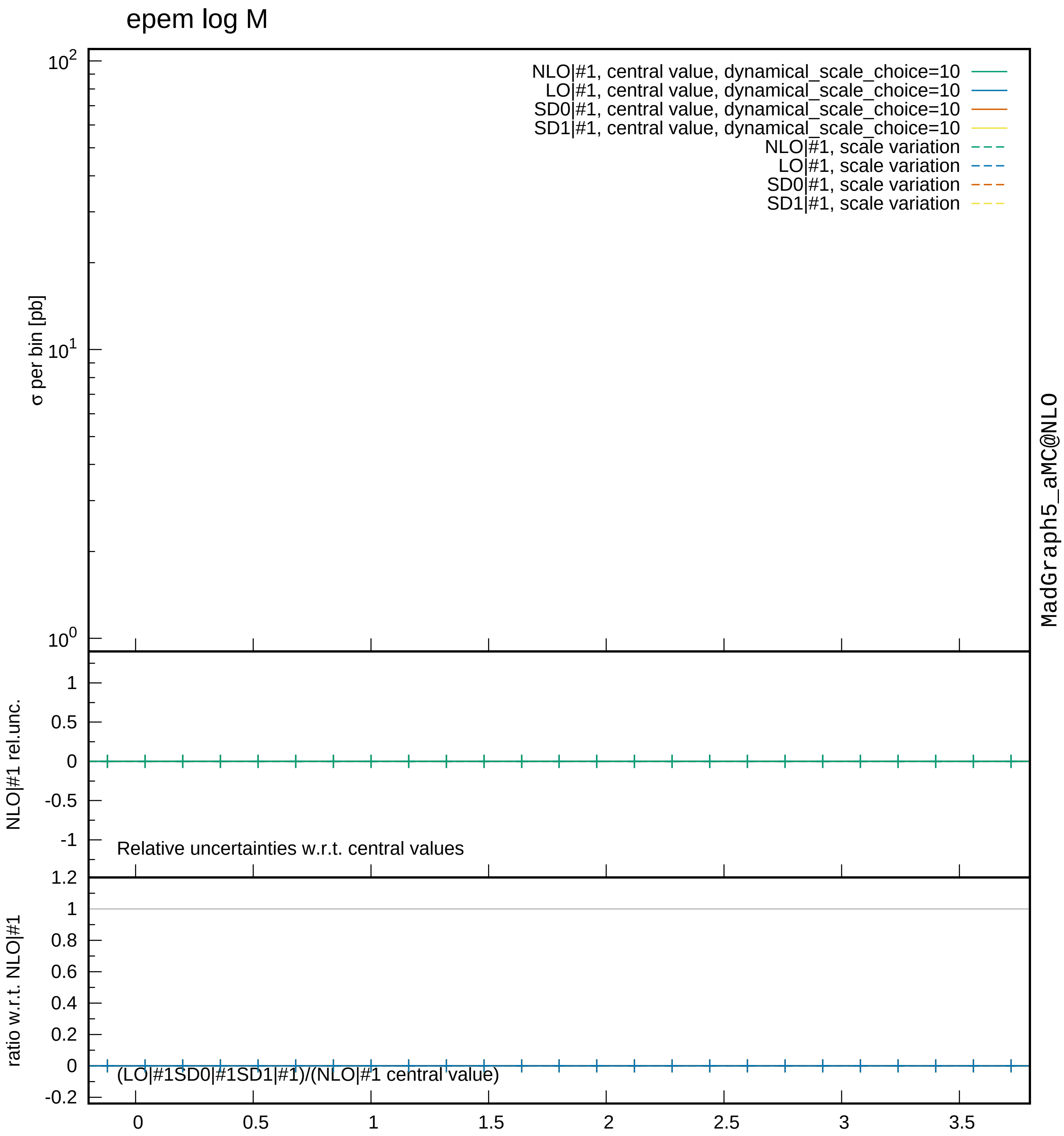

2nd V-boson log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10-1
10-2
10-3
10-4
10-5
10-6
10-7
10-8
10-9
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.1
0.05
0
-0.05
-0.1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
10
5
0
-5
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3
3.2
3.4
3.6
3.8
4
4.2
4.4


3rd V-boson log pT
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2
2.5
3
3.5
4
4.5


1st jet log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^-1
10^-2
10^-3
10^-4
10^-5
10^-6
10^-7
10^-8
10^-9
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3
3.2
3.4
3.6
3.8
4
4.2
4.4

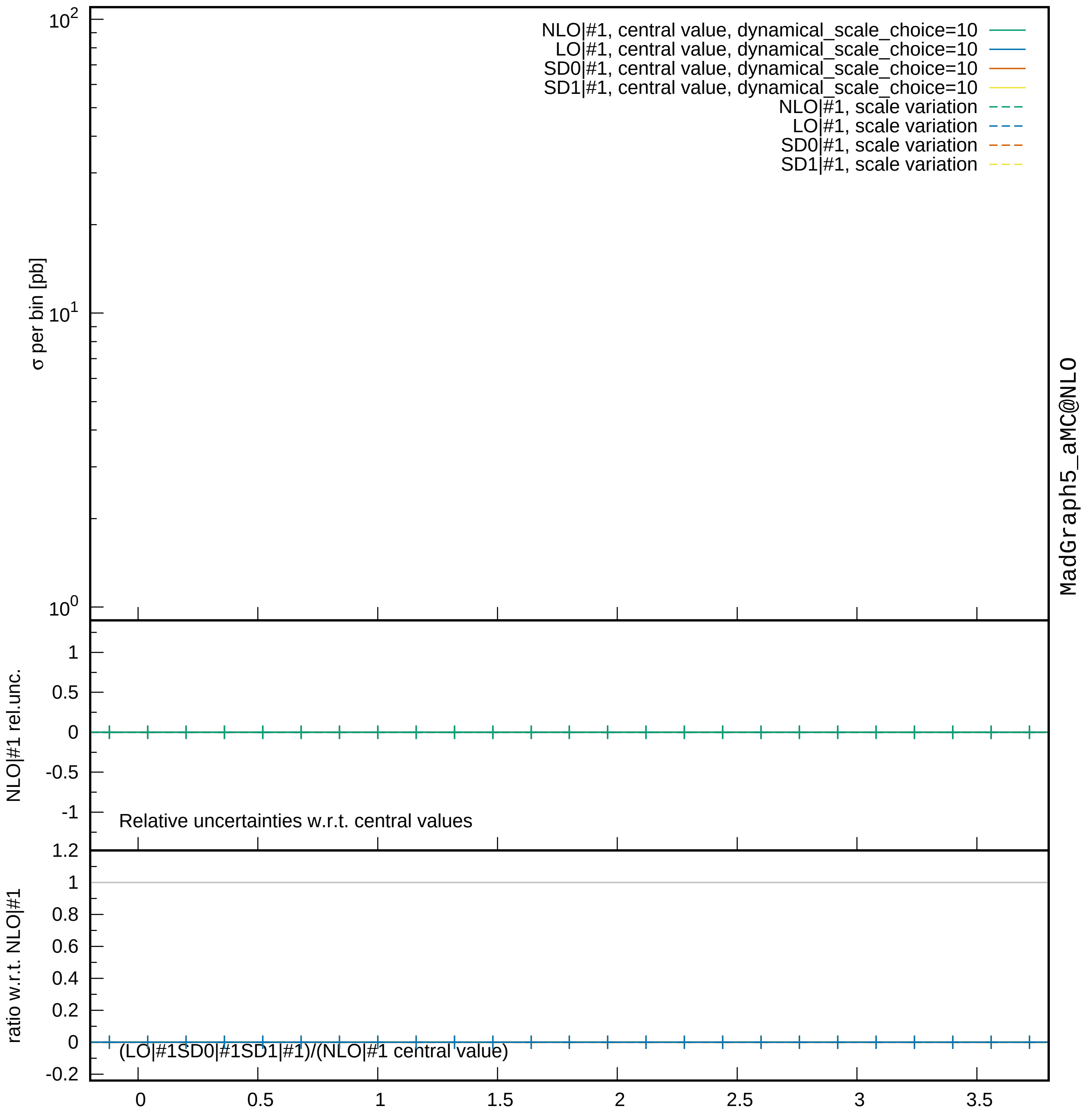

2nd jet log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.1
0.05
0
-0.05
-0.1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
15
10
5
0
-5
-10
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3
3.2
3.4
3.6
3.8
4
4.2
4.4


3rd jet log pT
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^-2
10^-4
10^-6
10^-8
10^-10
10^-12
10^-14
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.01
0.005
0
-0.005
-0.01
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2
2.5
3
3.5
4
4.5

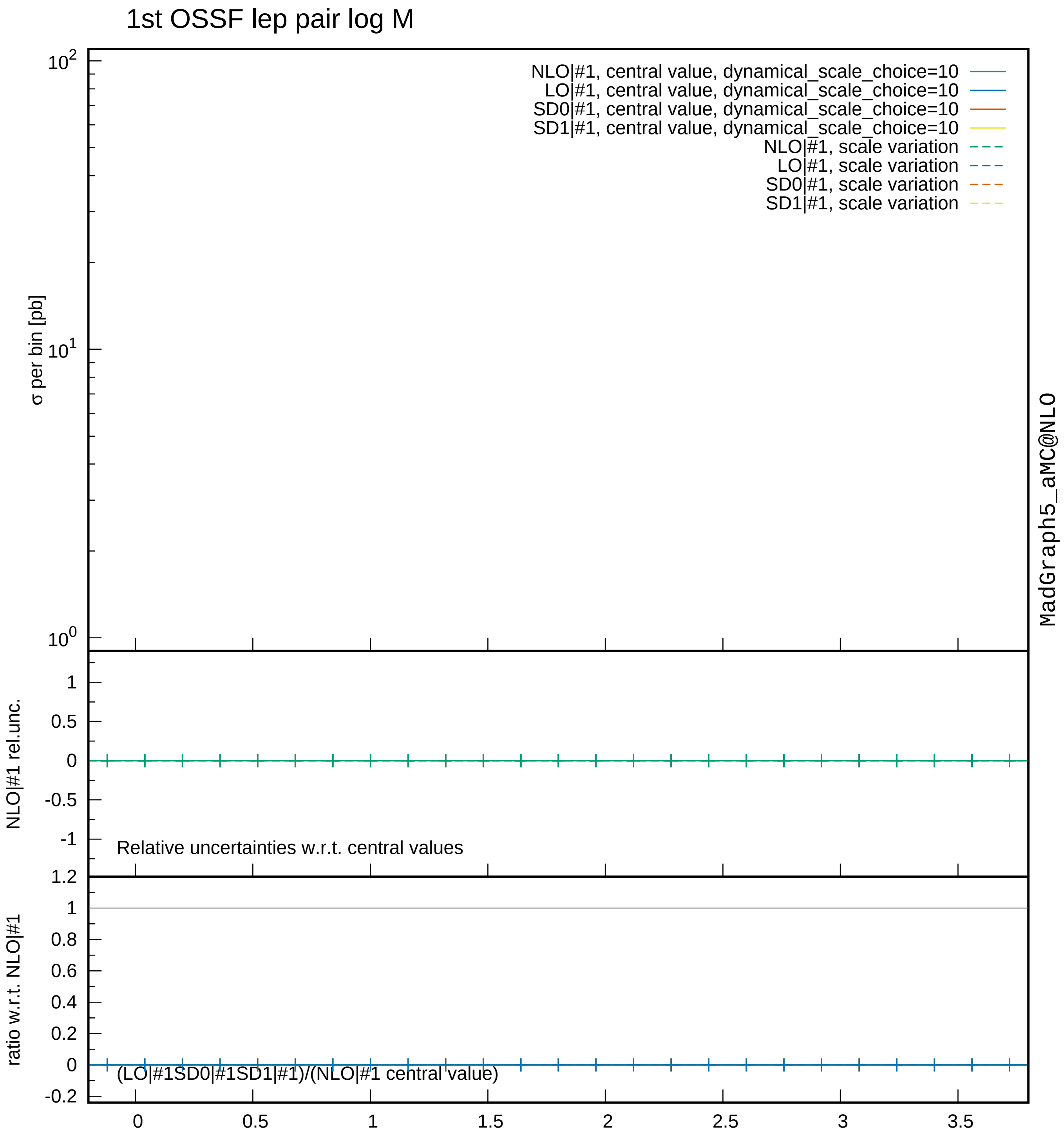


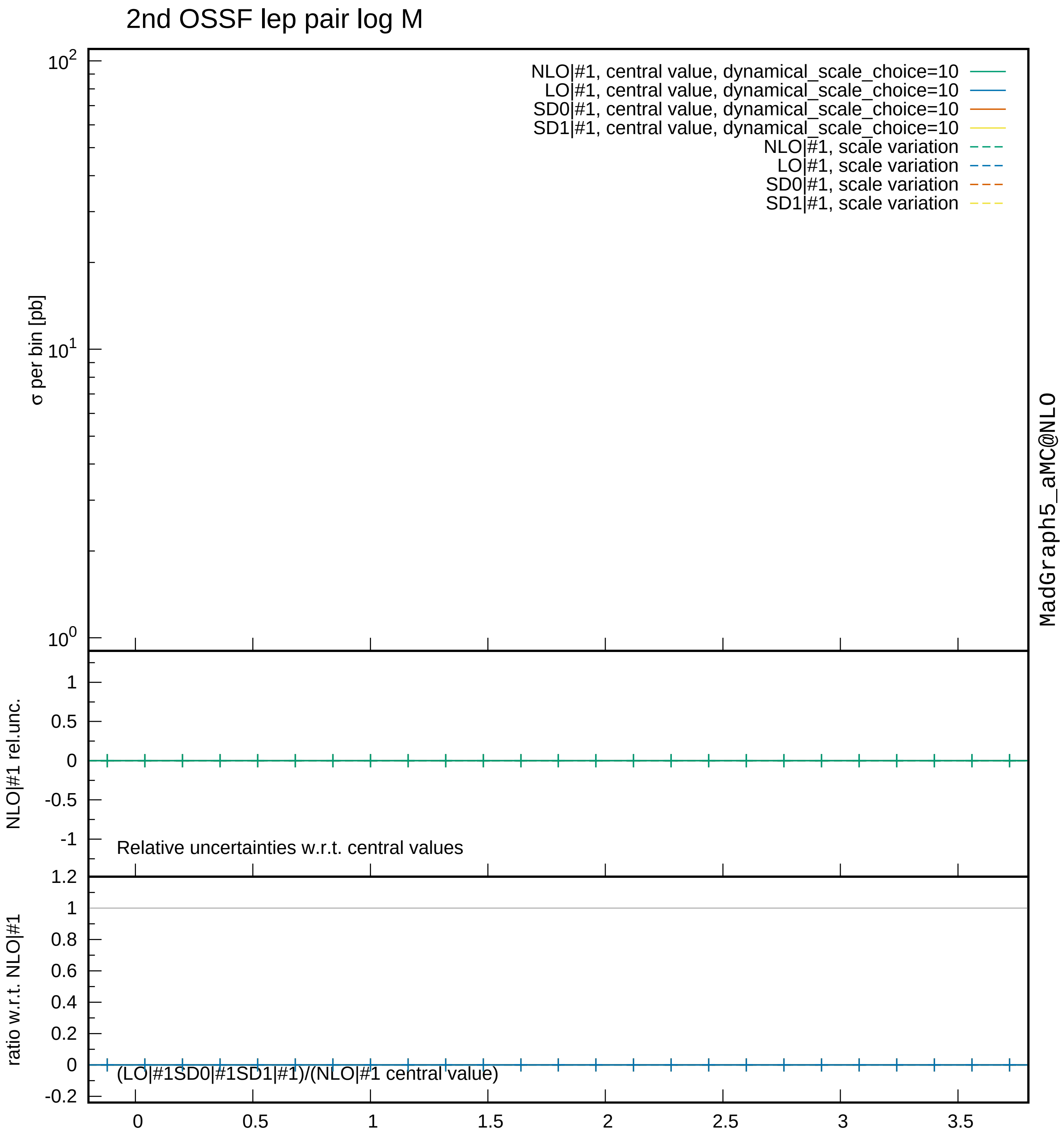
epem log M
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

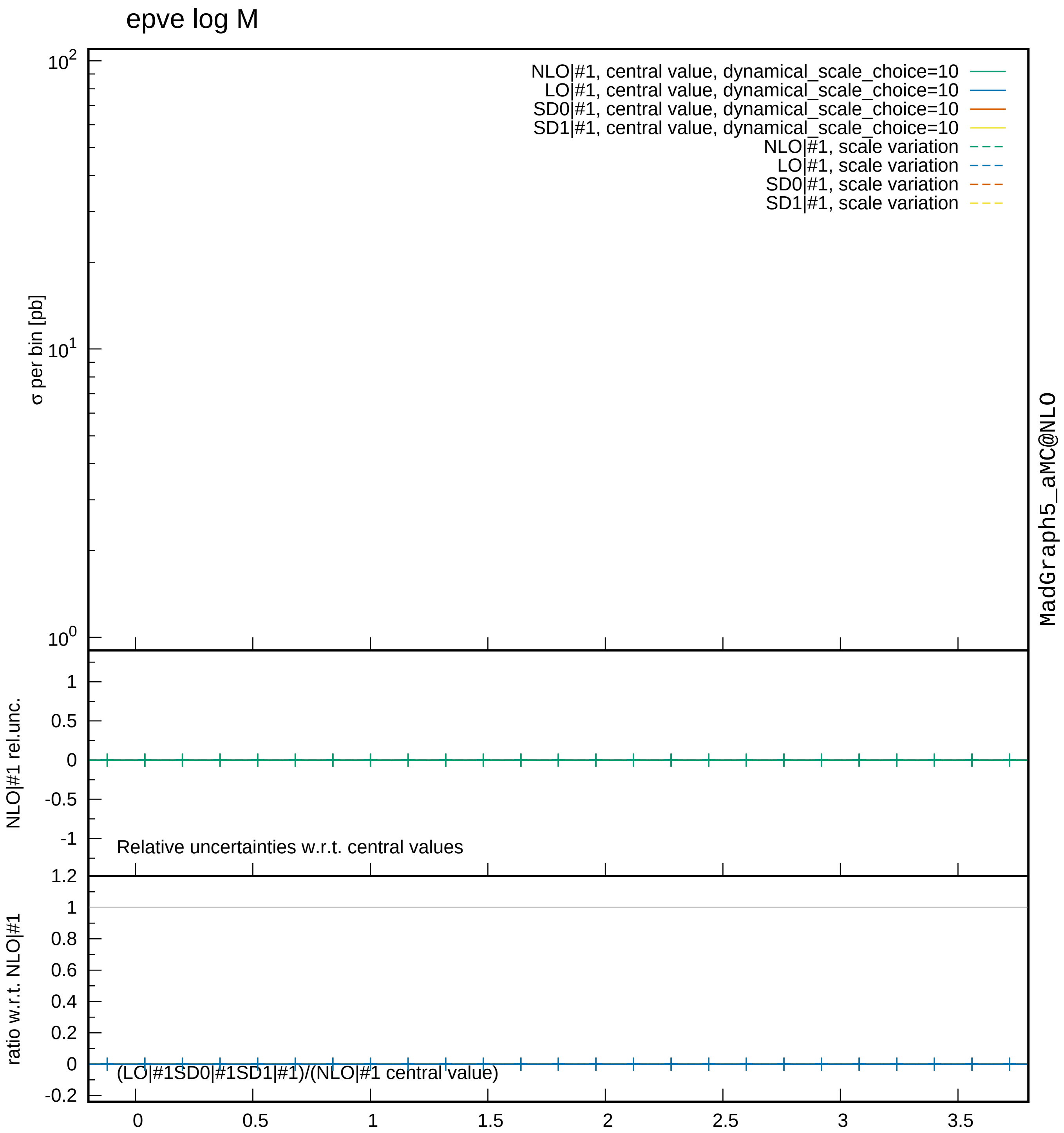
mupmum log M

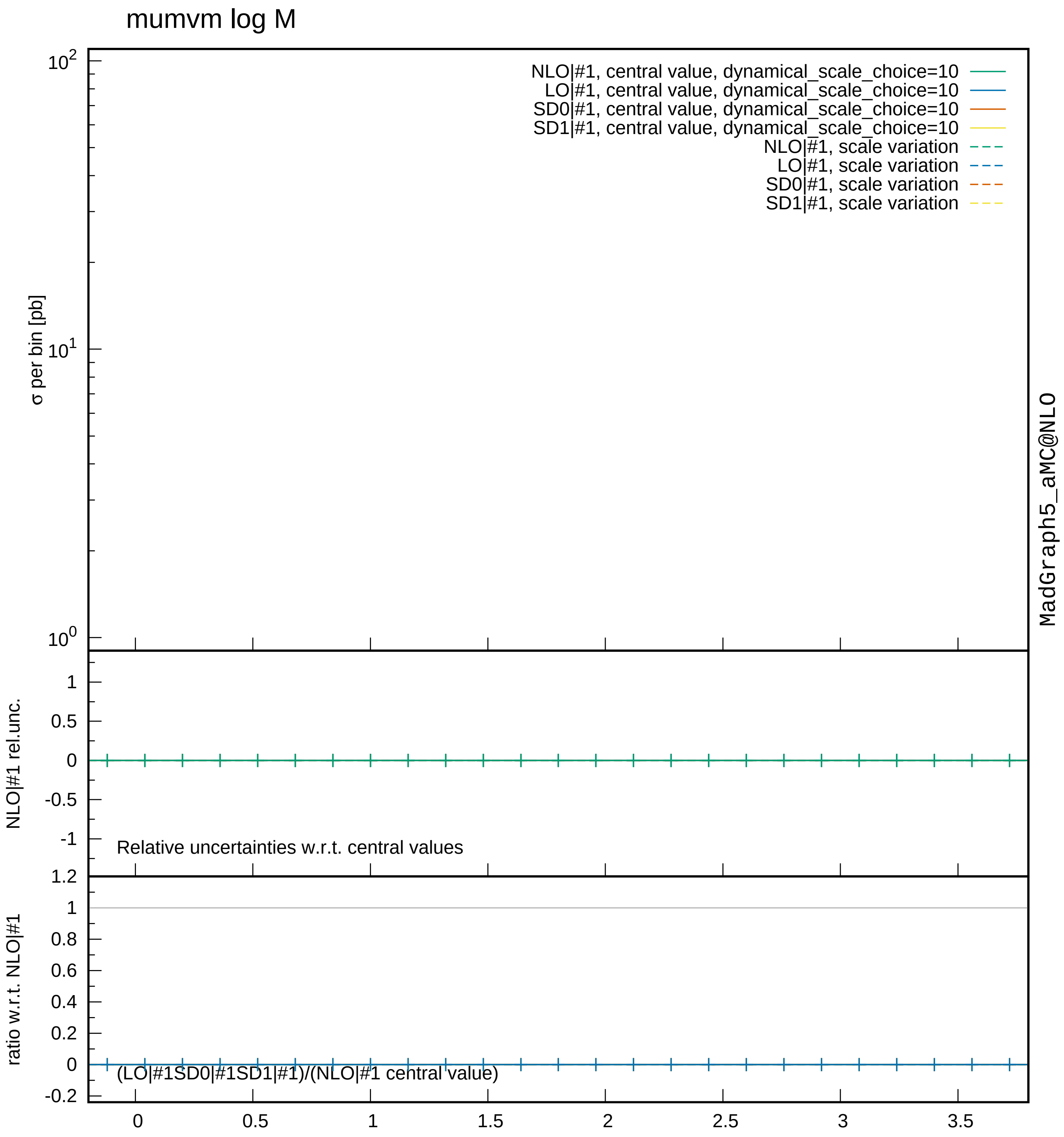


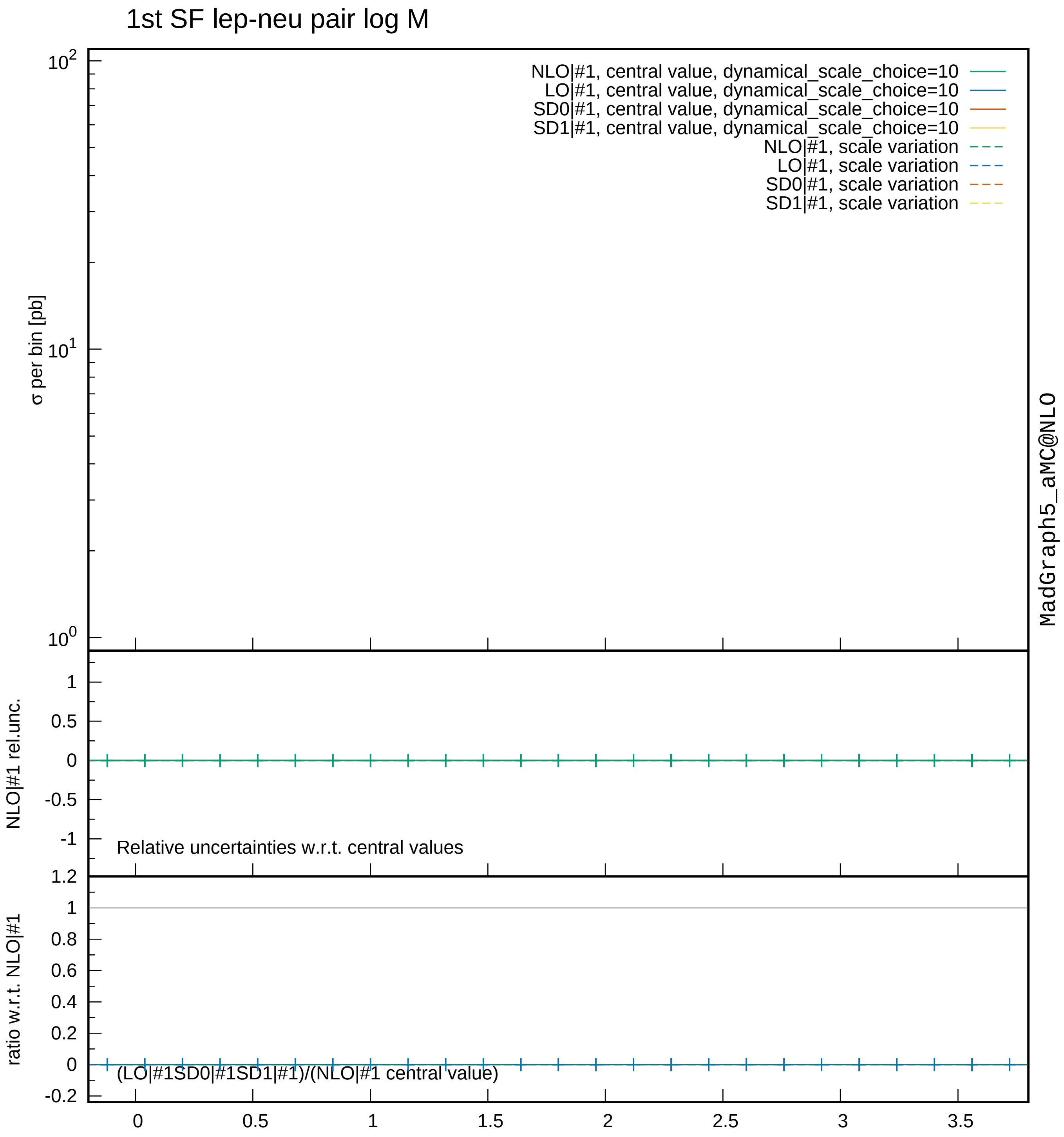
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


1st OSSF lep pair log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

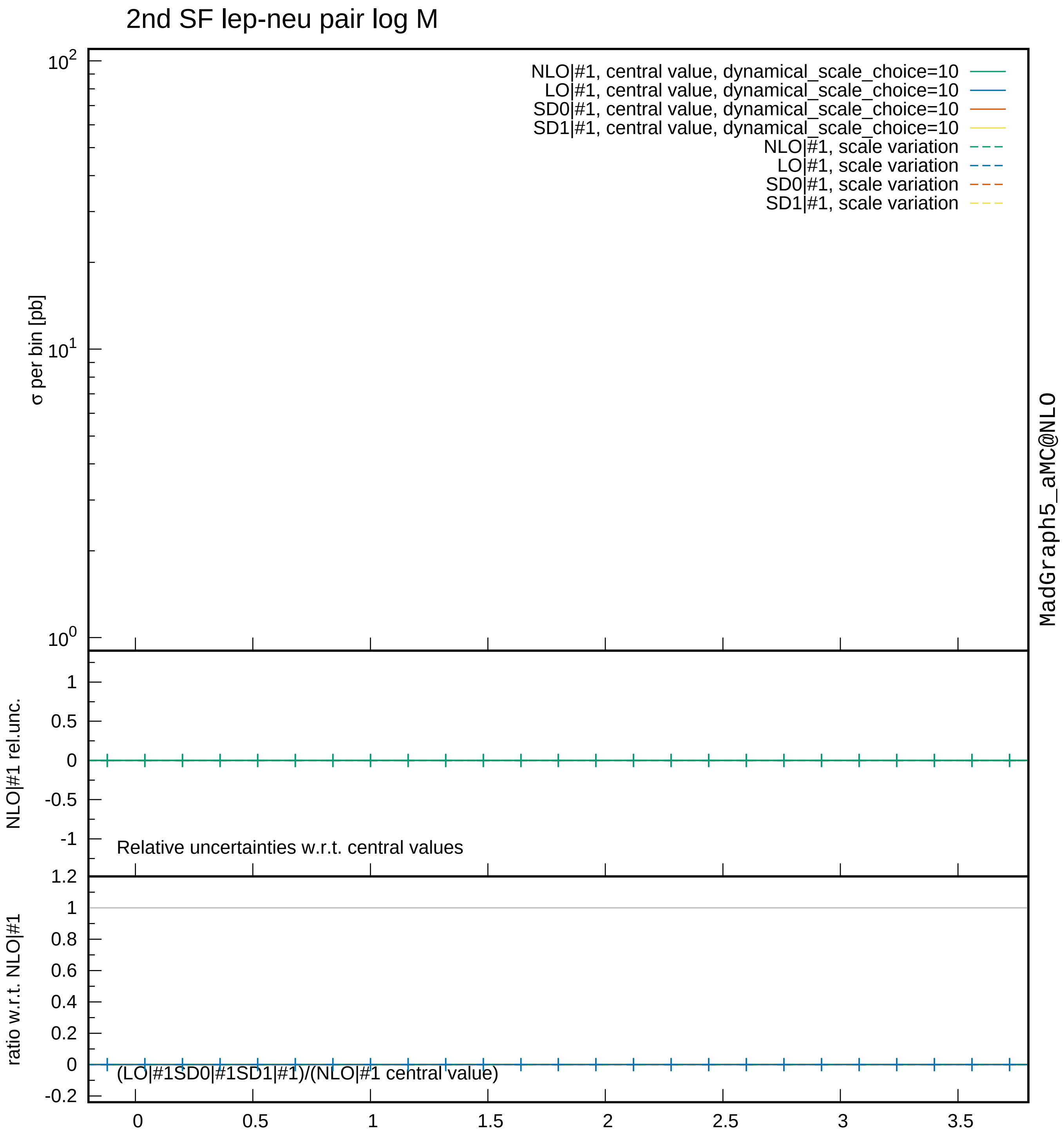

2nd OSSF lep pair log M

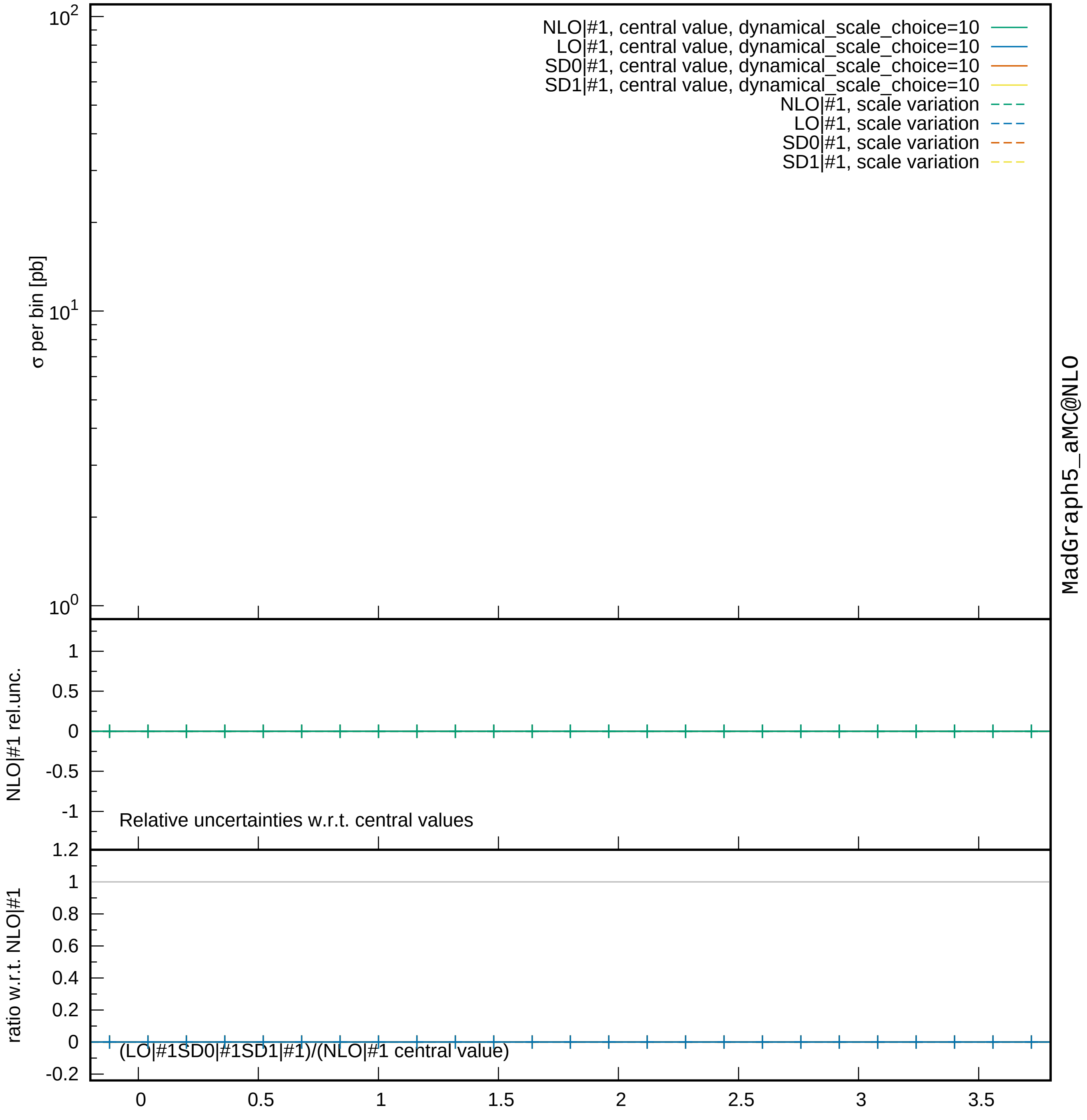

epve log M
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


mumvm log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

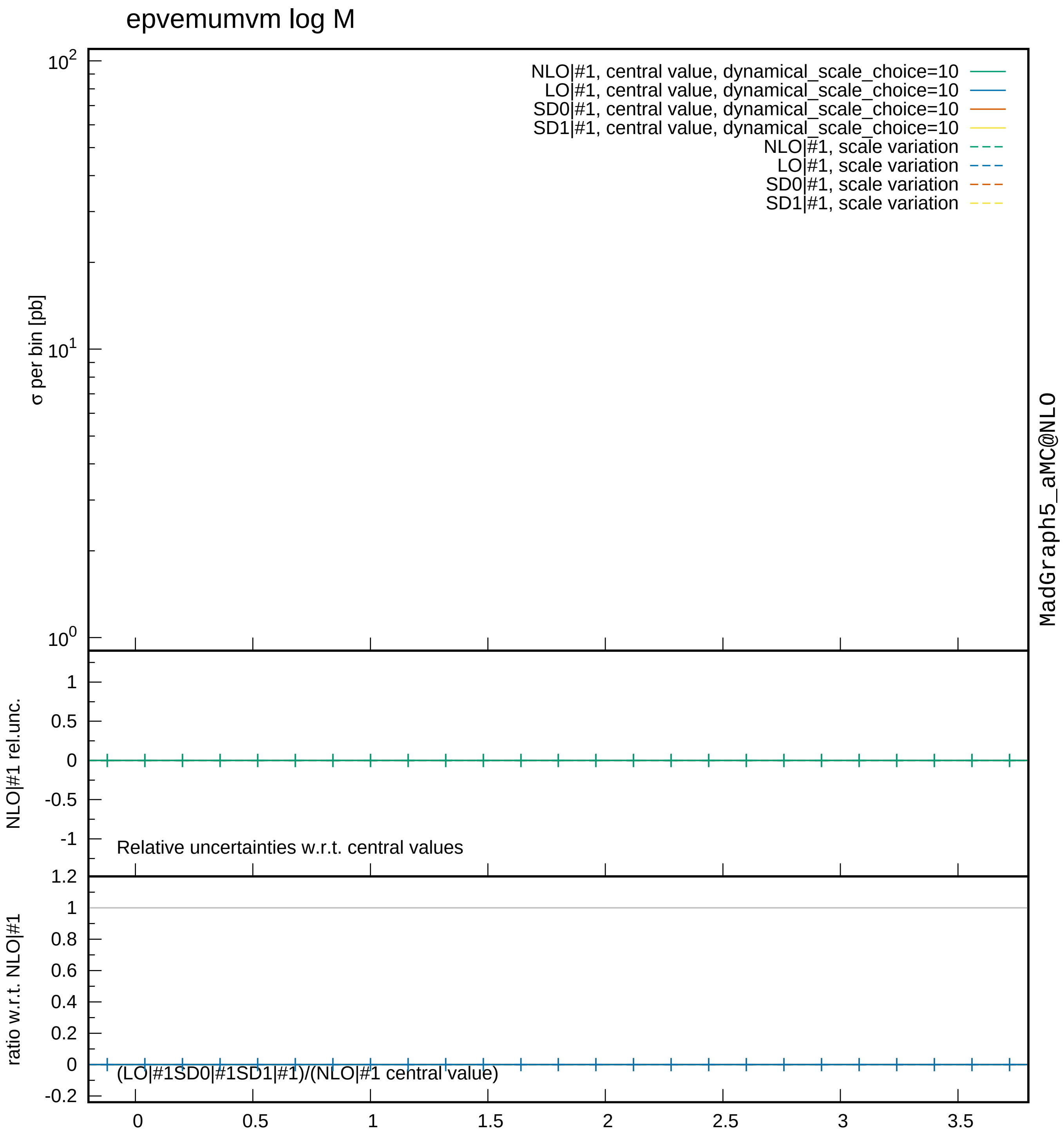


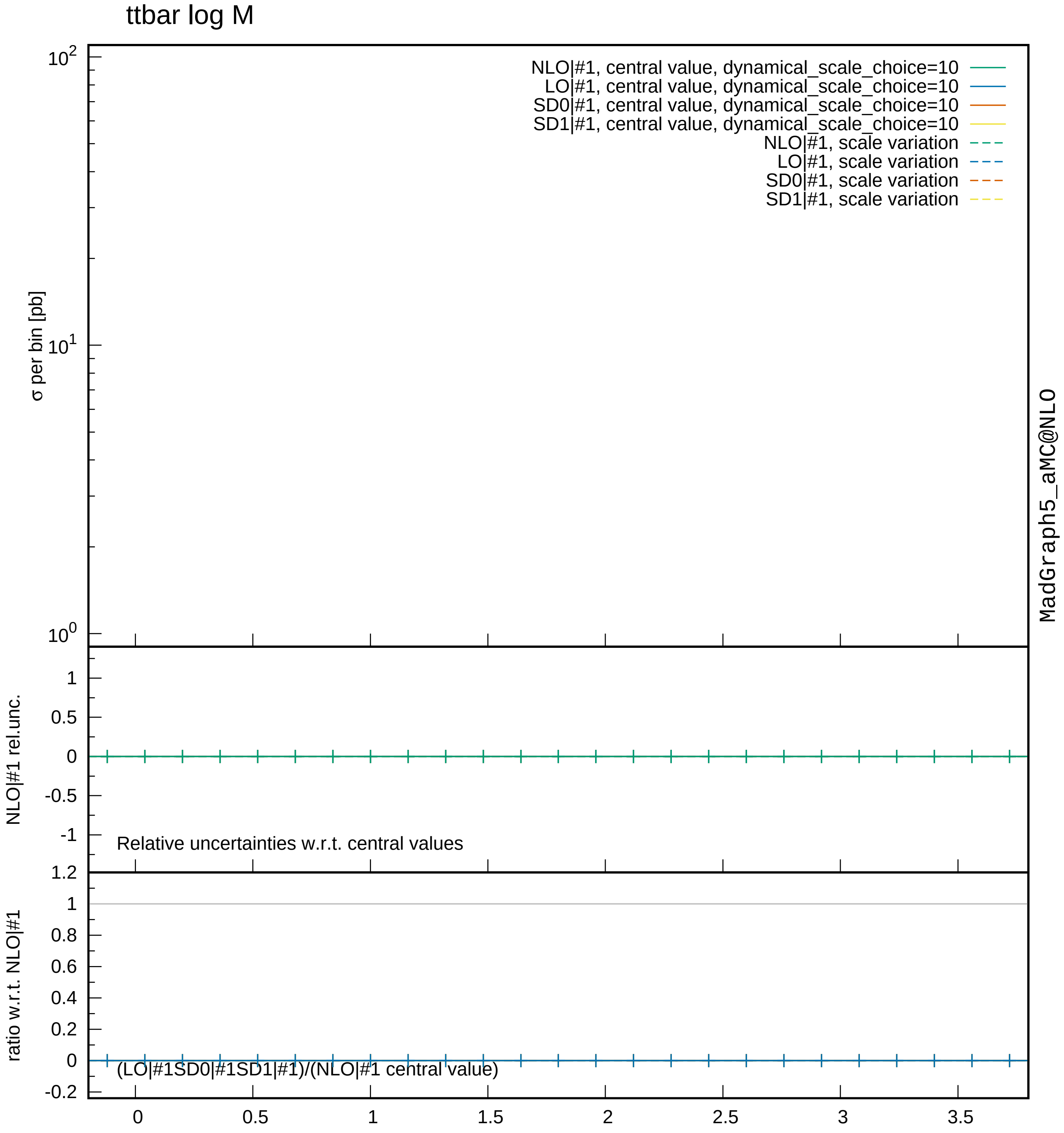
1st SF lep-neu pair log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

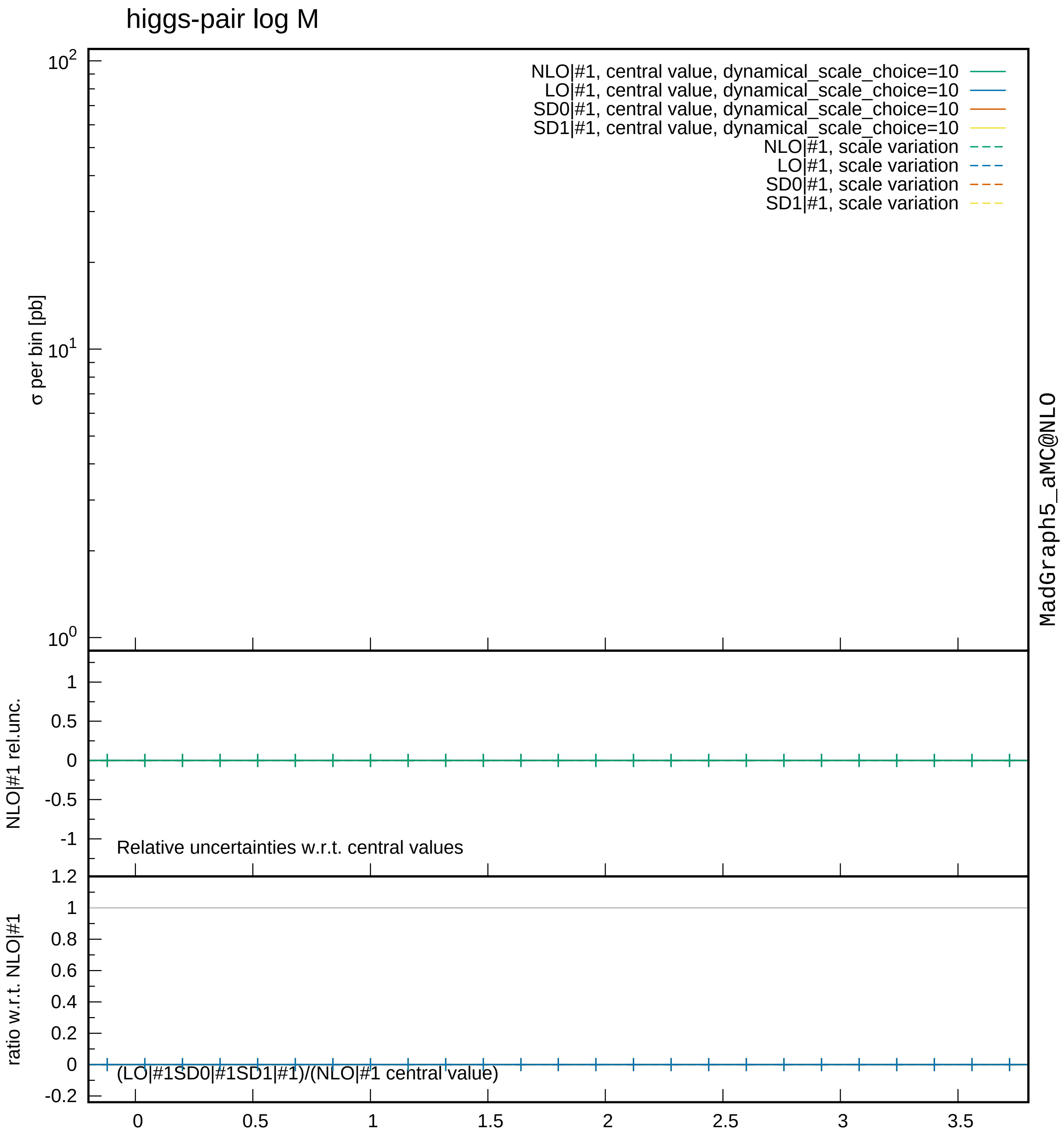

2nd SF lep-neu pair log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

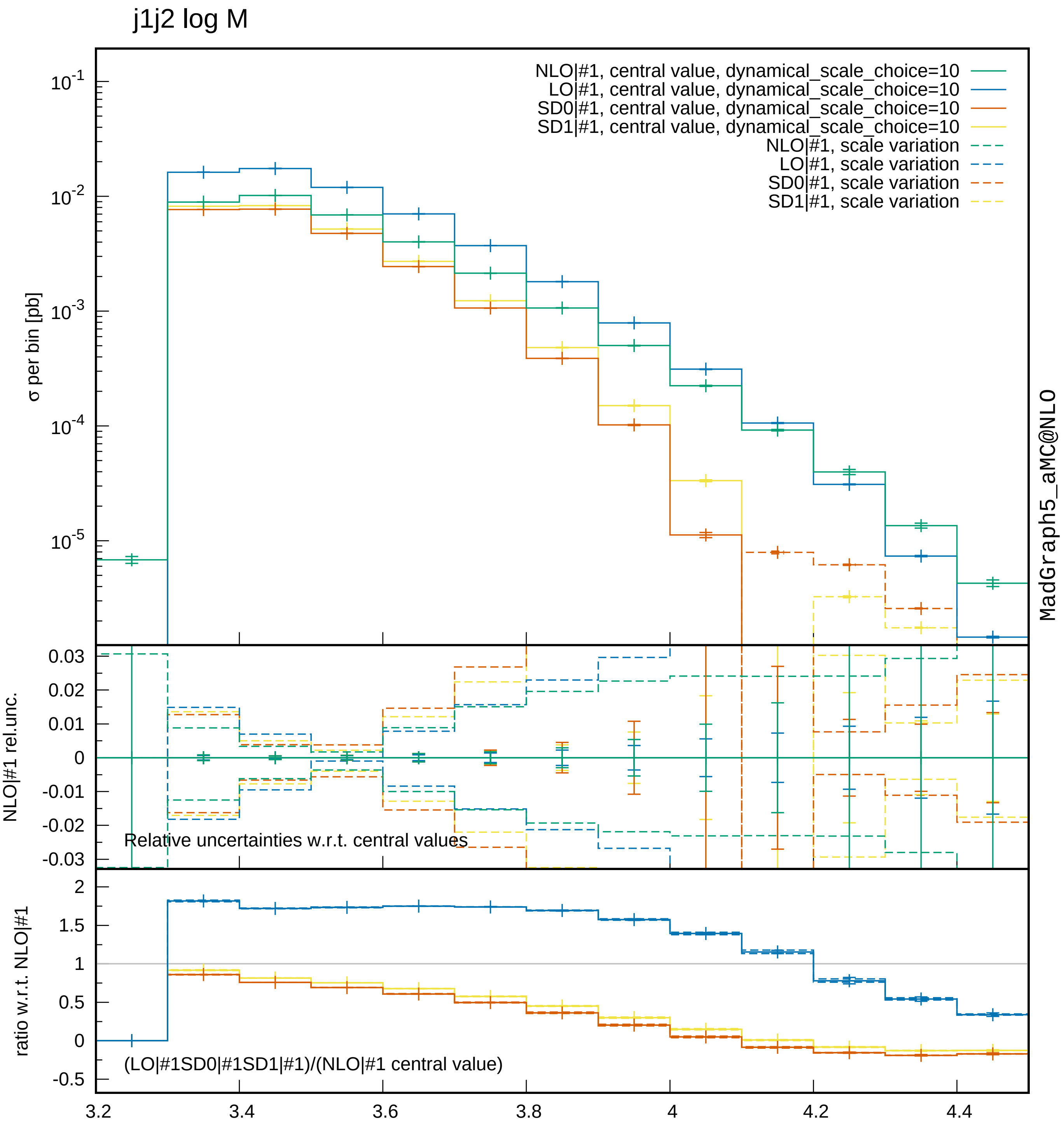


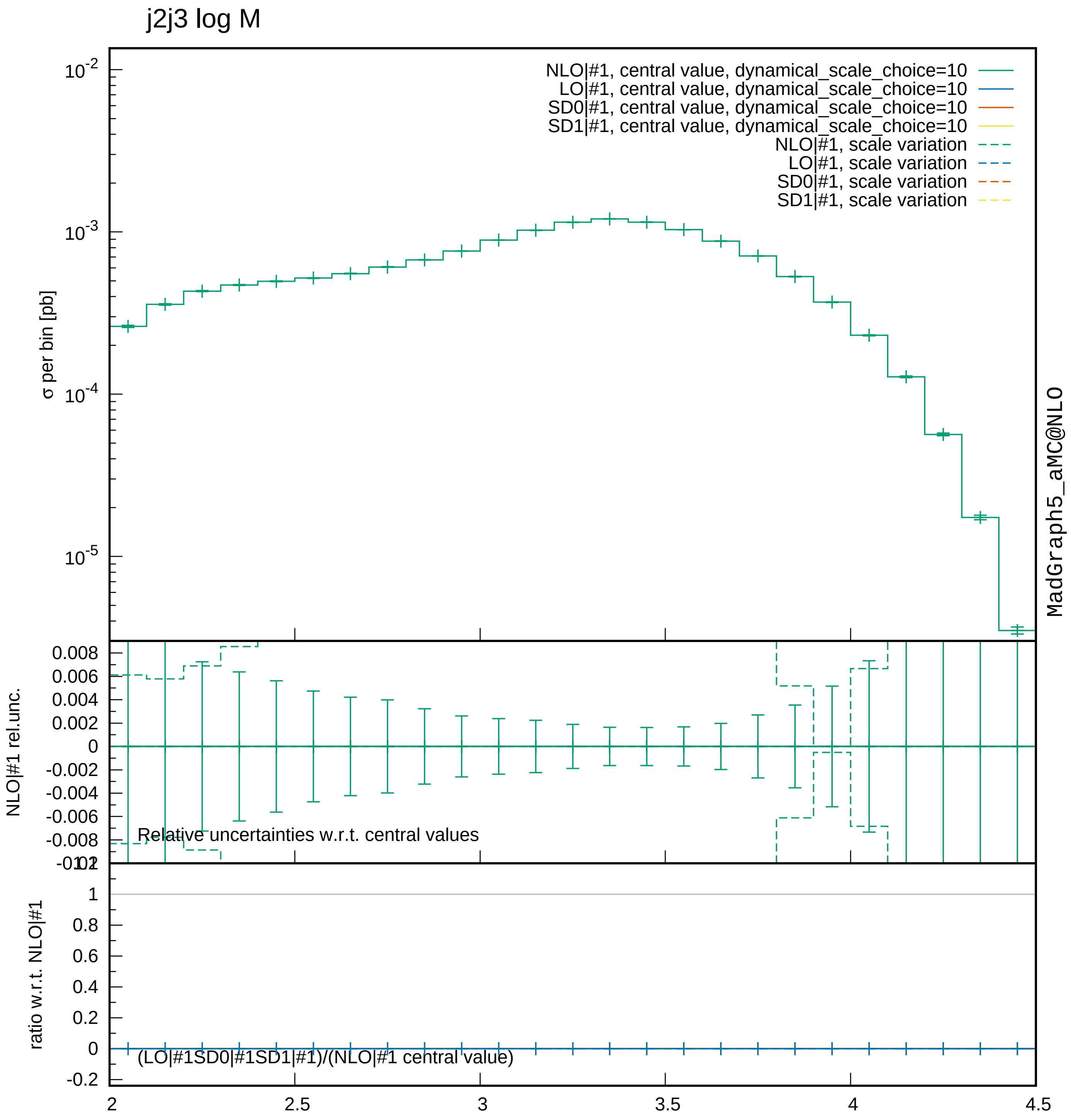
epemmupmum log M


epvemumvm log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

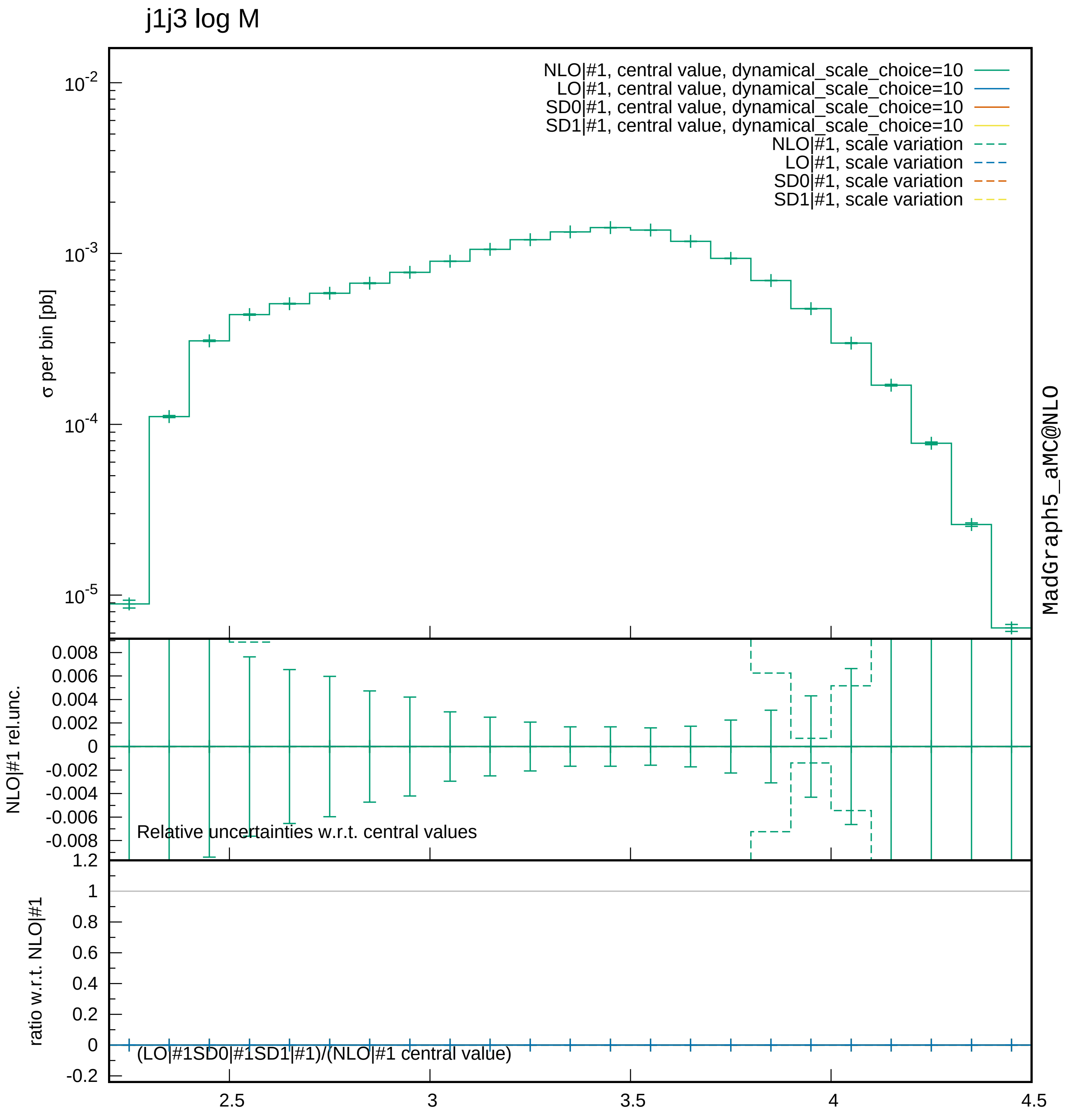

ttbar log M
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5

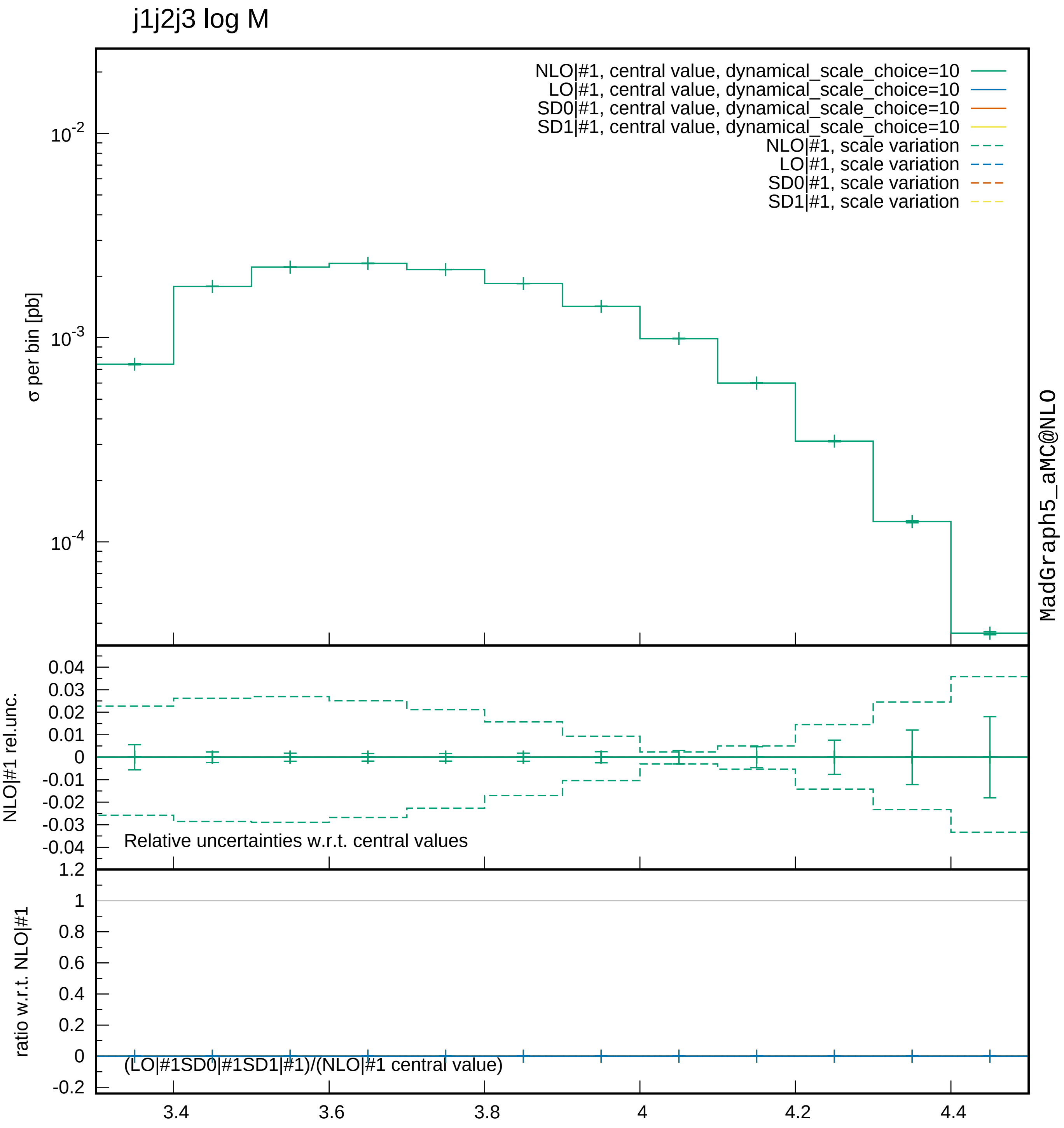

higgs-pair log M
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
0
0.5
1
1.5
2
2.5
3
3.5


j1j2 log M
σ per bin [pb]
10-1
10-2
10-3
10-4
10-5
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.03
0.02
0.01
0
-0.01
-0.02
-0.03
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
2
1.5
1
0.5
0
-0.5
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3.2
3.4
3.6
3.8
4
4.2
4.4

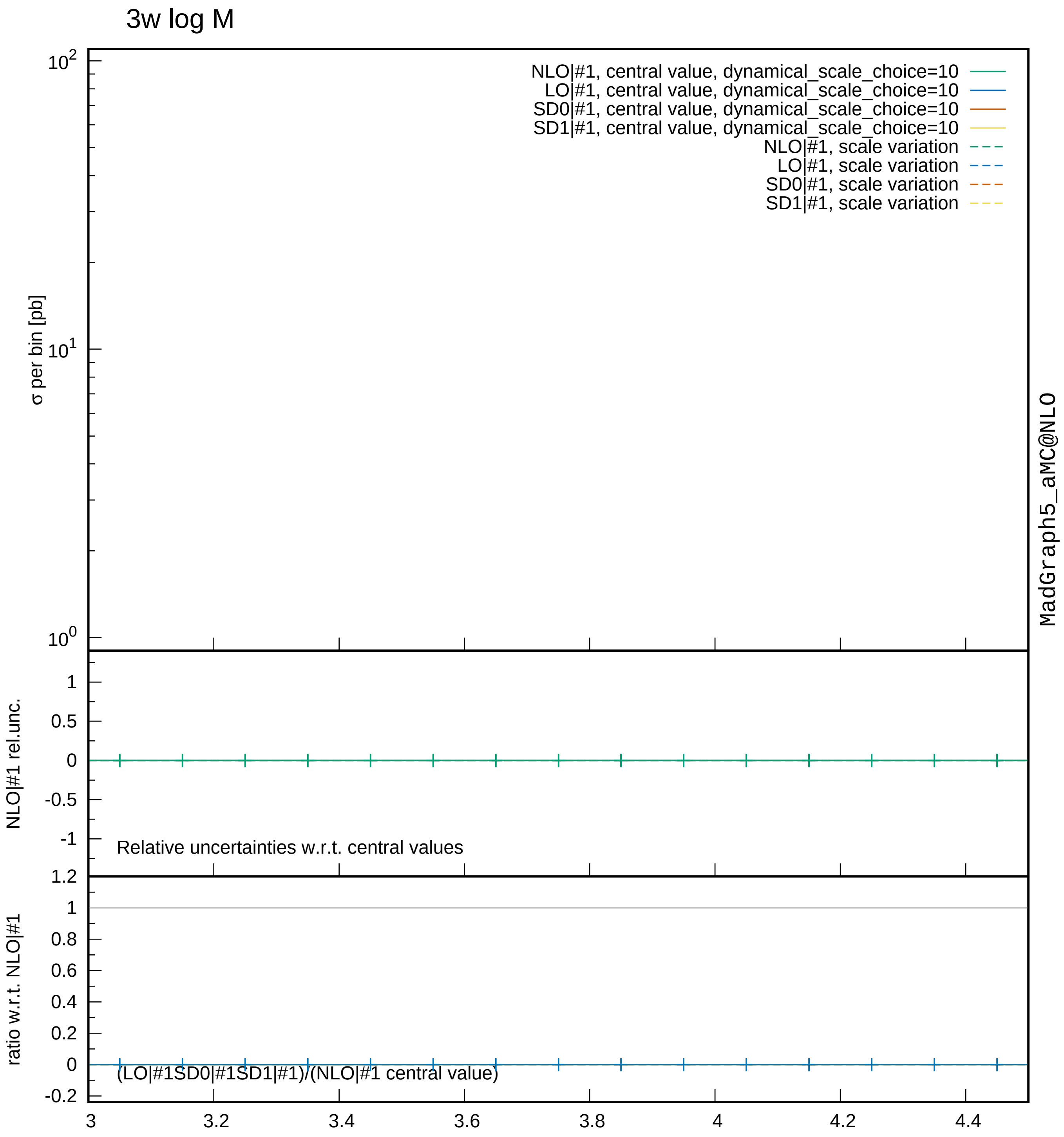


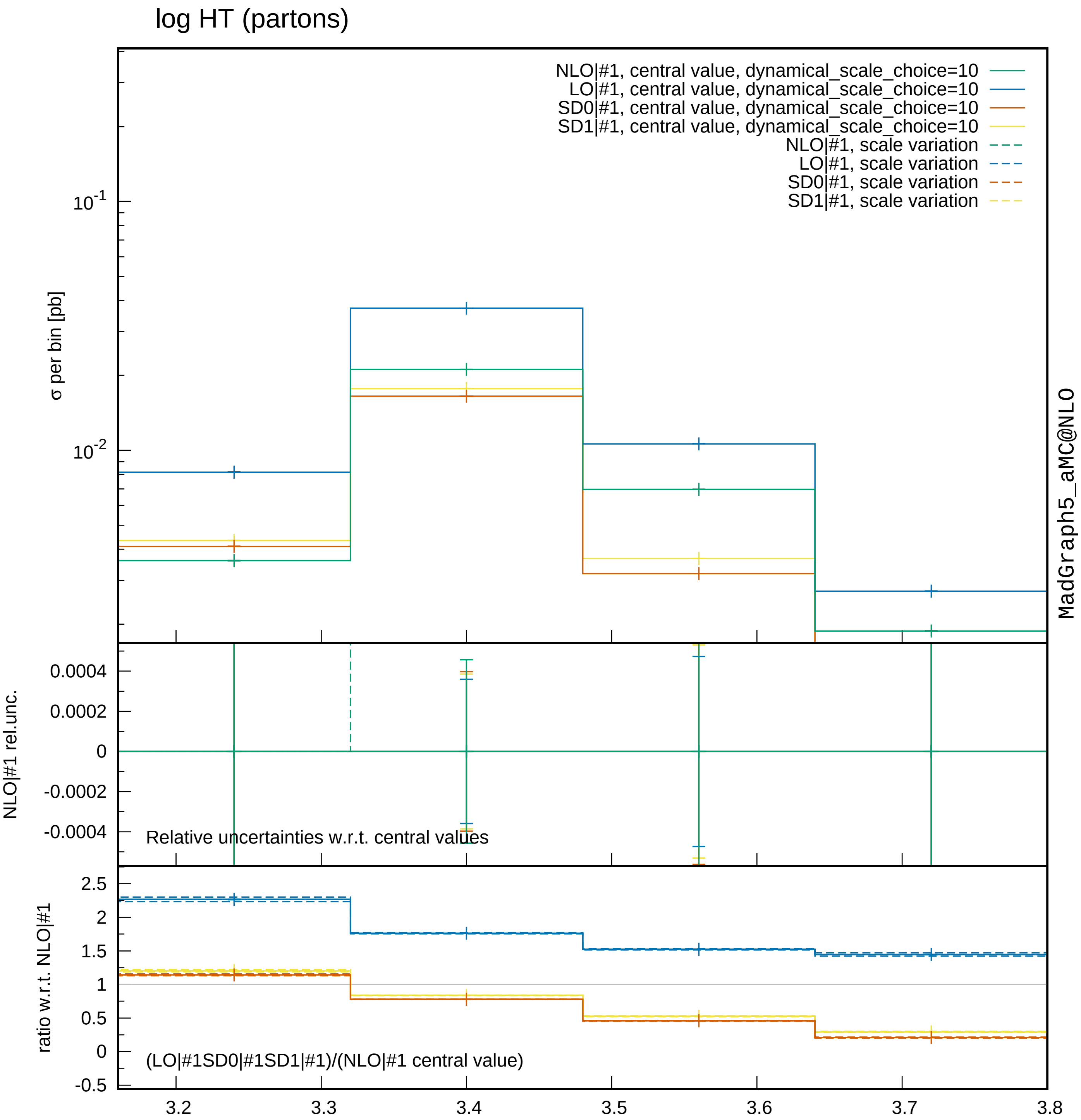
j2j3 log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^{-2}
10^{-3}
10^{-4}
10^{-5}
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.008
0.006
0.004
0.002
0
-0.002
-0.004
-0.006
-0.008
-0.01
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2
2.5
3
3.5
4
4.5

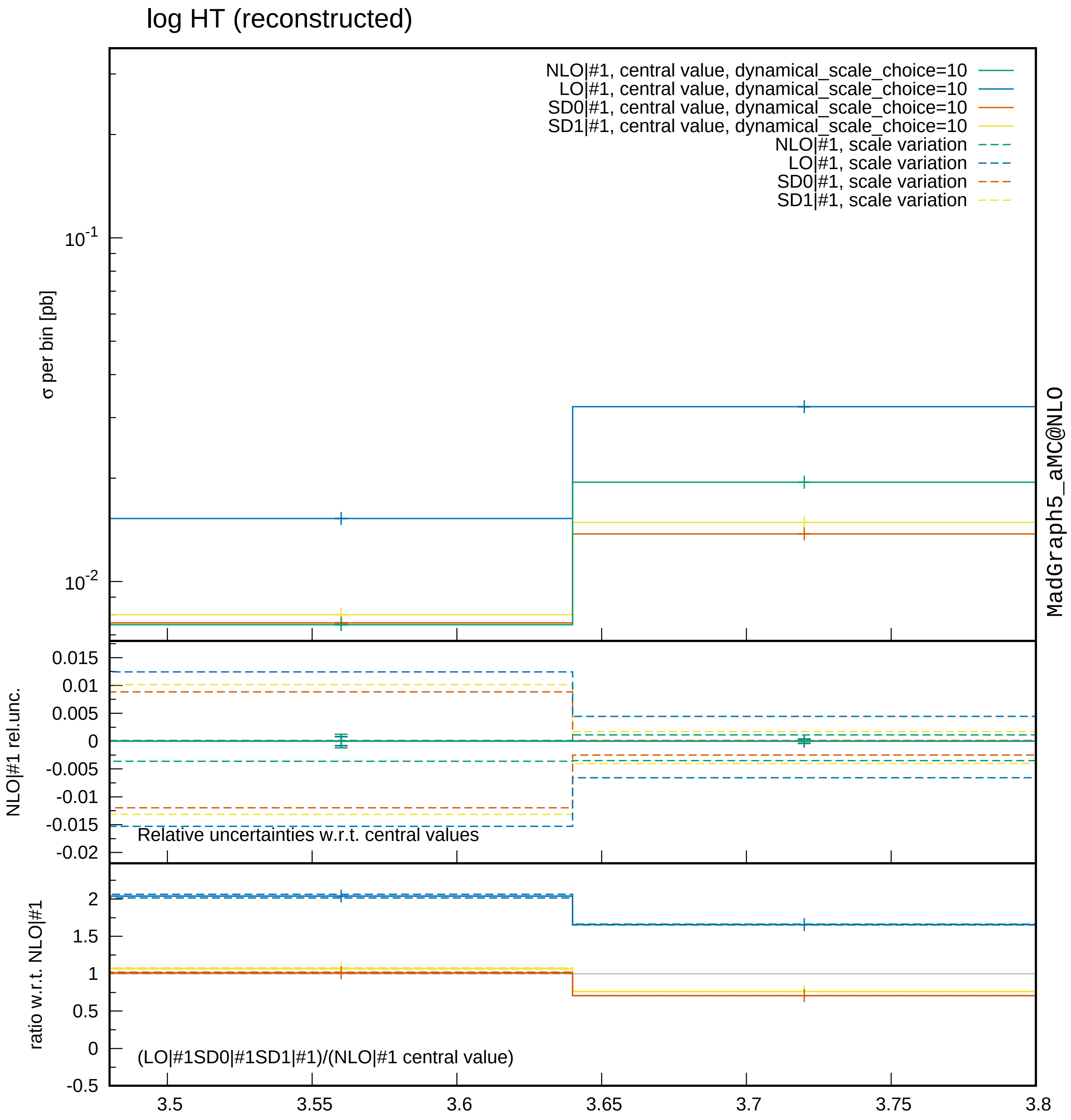

j1j3 log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10-2
10-3
10-4
10-5
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.008
0.006
0.004
0.002
0
-0.002
-0.004
-0.006
-0.008
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2.5
3
3.5
4
4.5



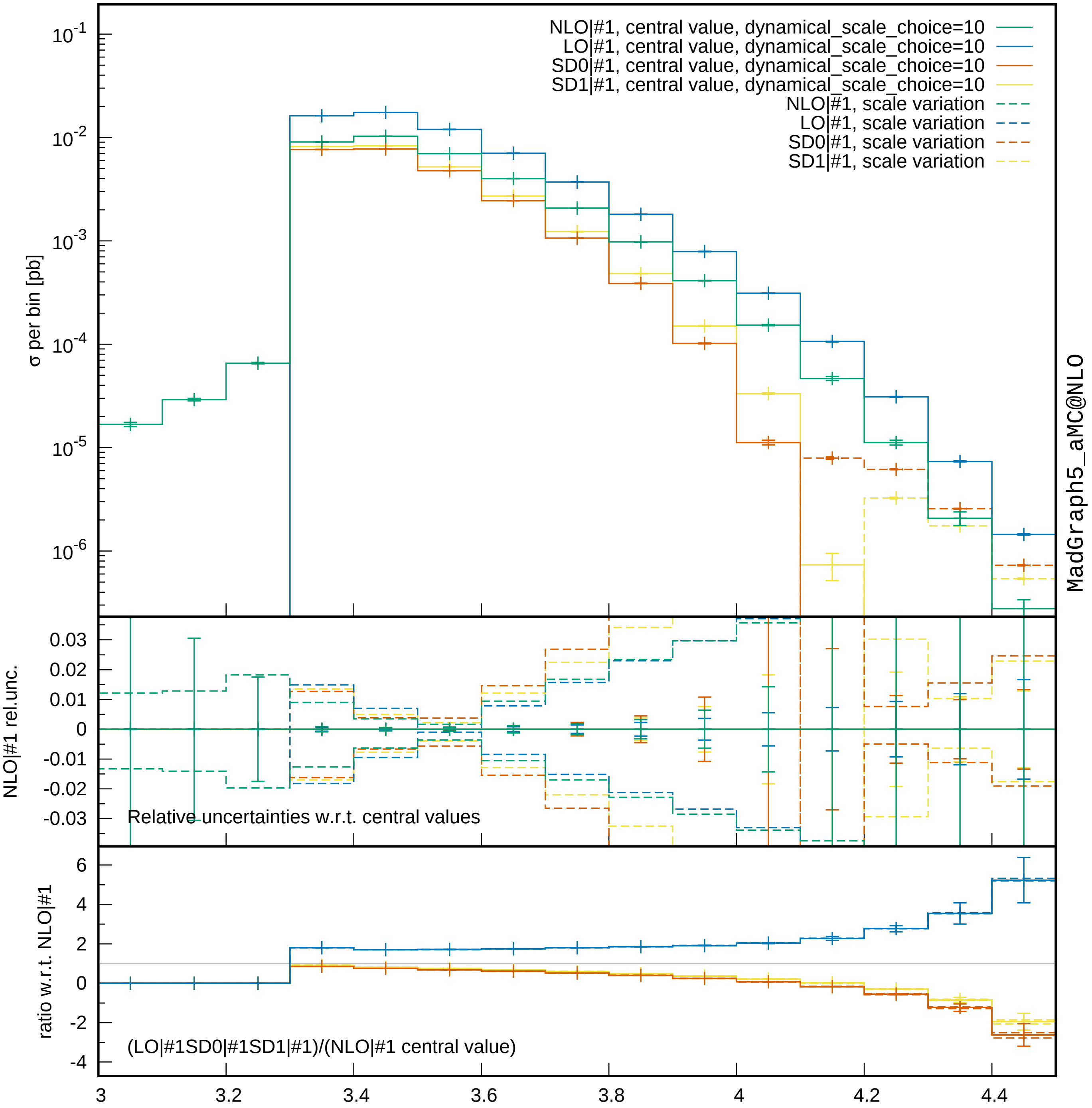
j1j2j3 log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^-2
10^-3
10^-4
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.04
0.03
0.02
0.01
0
-0.01
-0.02
-0.03
-0.04
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3.4
3.6
3.8
4
4.2
4.4

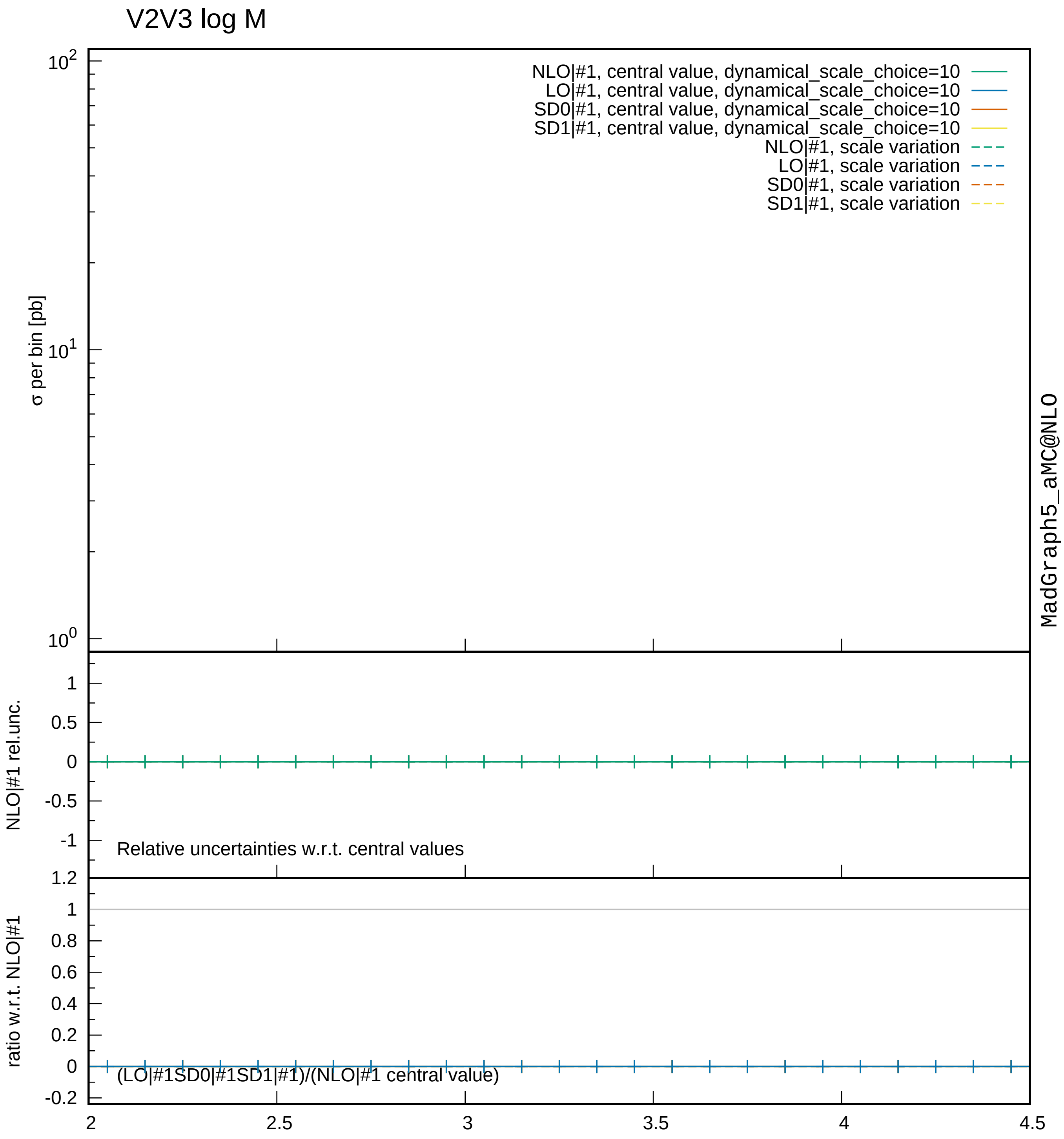

3w log M
σ per bin [pb]
10^2
10^1
10^0
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3
3.2
3.4
3.6
3.8
4
4.2
4.4

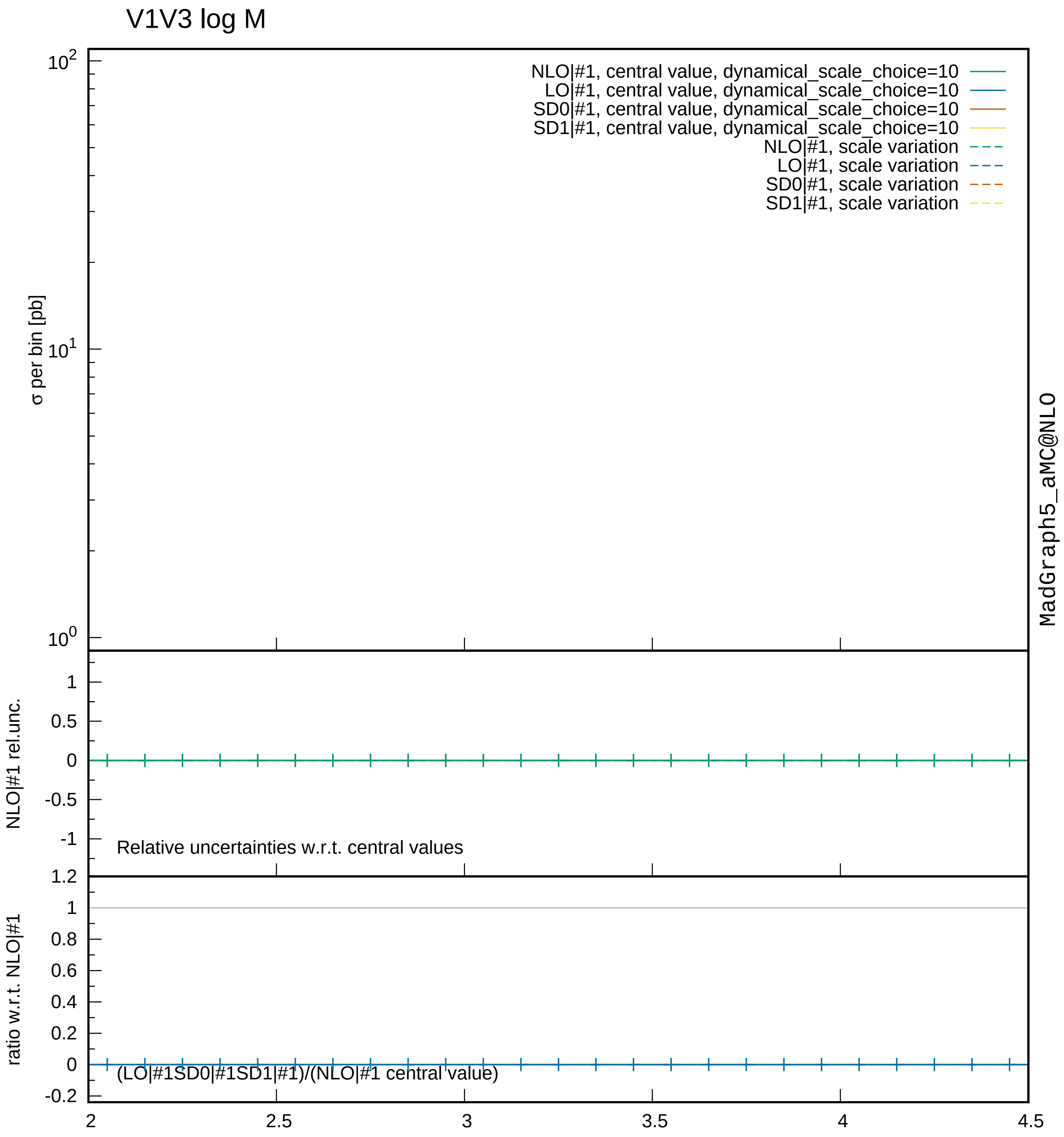
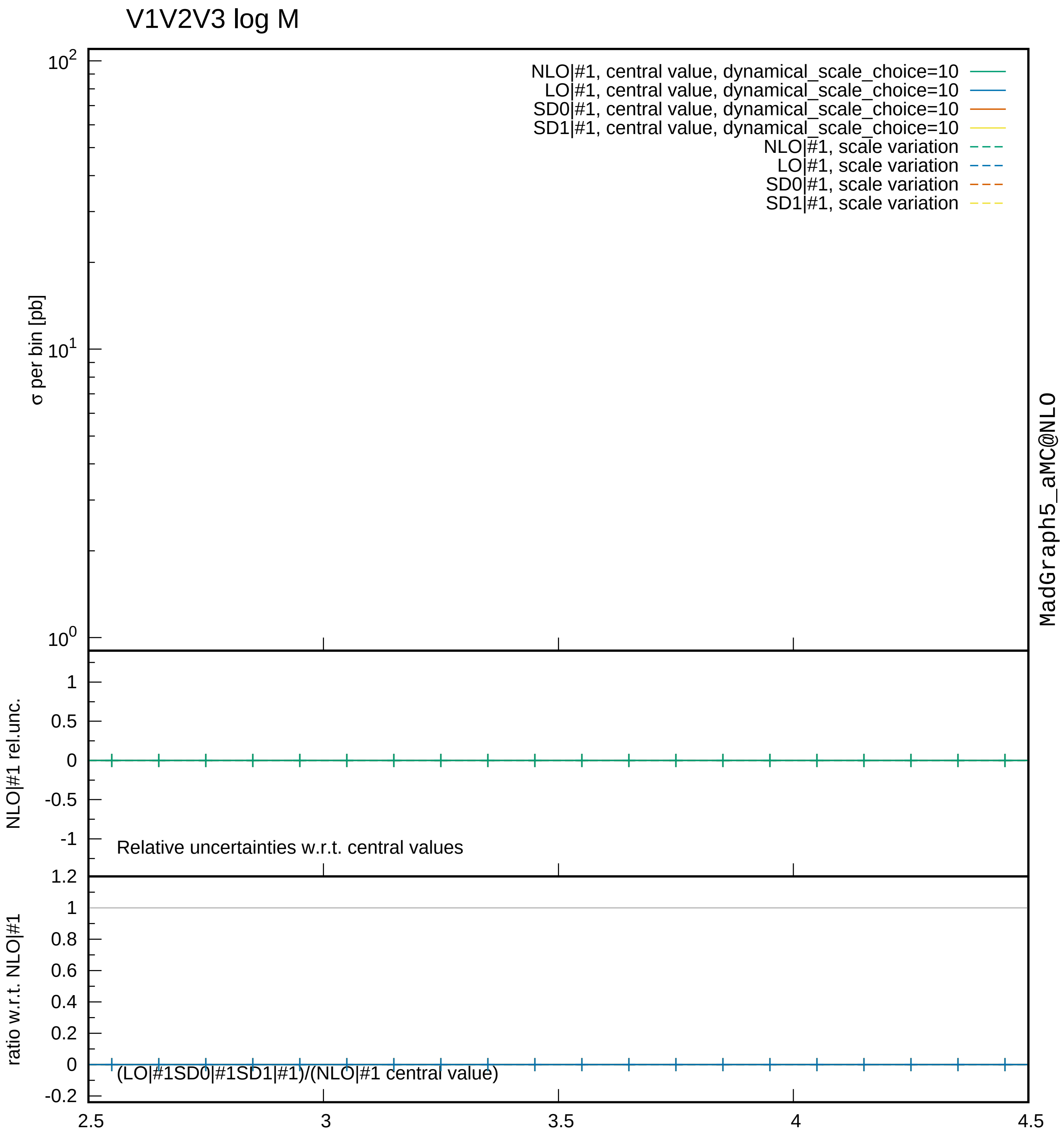

log HT (partons)
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^{-1}
10^{-2}
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.0004
0.0002
0
-0.0002
-0.0004
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
2.5
2
1.5
1
0.5
0
-0.5
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3.2
3.3
3.4
3.5
3.6
3.7
3.8


log HT (reconstructed)
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^{-1}
10^{-2}
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
2
1.5
1
0.5
0
-0.5
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3.5
3.55
3.6
3.65
3.7
3.75
3.8

V1V2 log M


NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
0.03
0.02
0.01
0
-0.01
-0.02
-0.03
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
6
4
2
0
-2
-4
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
3
3.2
3.4
3.6
3.8
4
4.2
4.4


V2V3 log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2
2.5
3
3.5
4
4.5


V1V3 log M
NLO|#1, central value, dynamical_scale_choice=10
LO|#1, central value, dynamical_scale_choice=10
SD0|#1, central value, dynamical_scale_choice=10
SD1|#1, central value, dynamical_scale_choice=10
NLO|#1, scale variation
LO|#1, scale variation
SD0|#1, scale variation
SD1|#1, scale variation
σ per bin [pb]
10^2
10^1
10^0
MadGraph5_aMC@NLO
NLO|#1 rel.unc.
1
0.5
0
-0.5
-1
Relative uncertainties w.r.t. central values
ratio w.r.t. NLO|#1
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
(LO|#1SD0|#1SD1|#1)/(NLO|#1 central value)
2
2.5
3
3.5
4
4.5