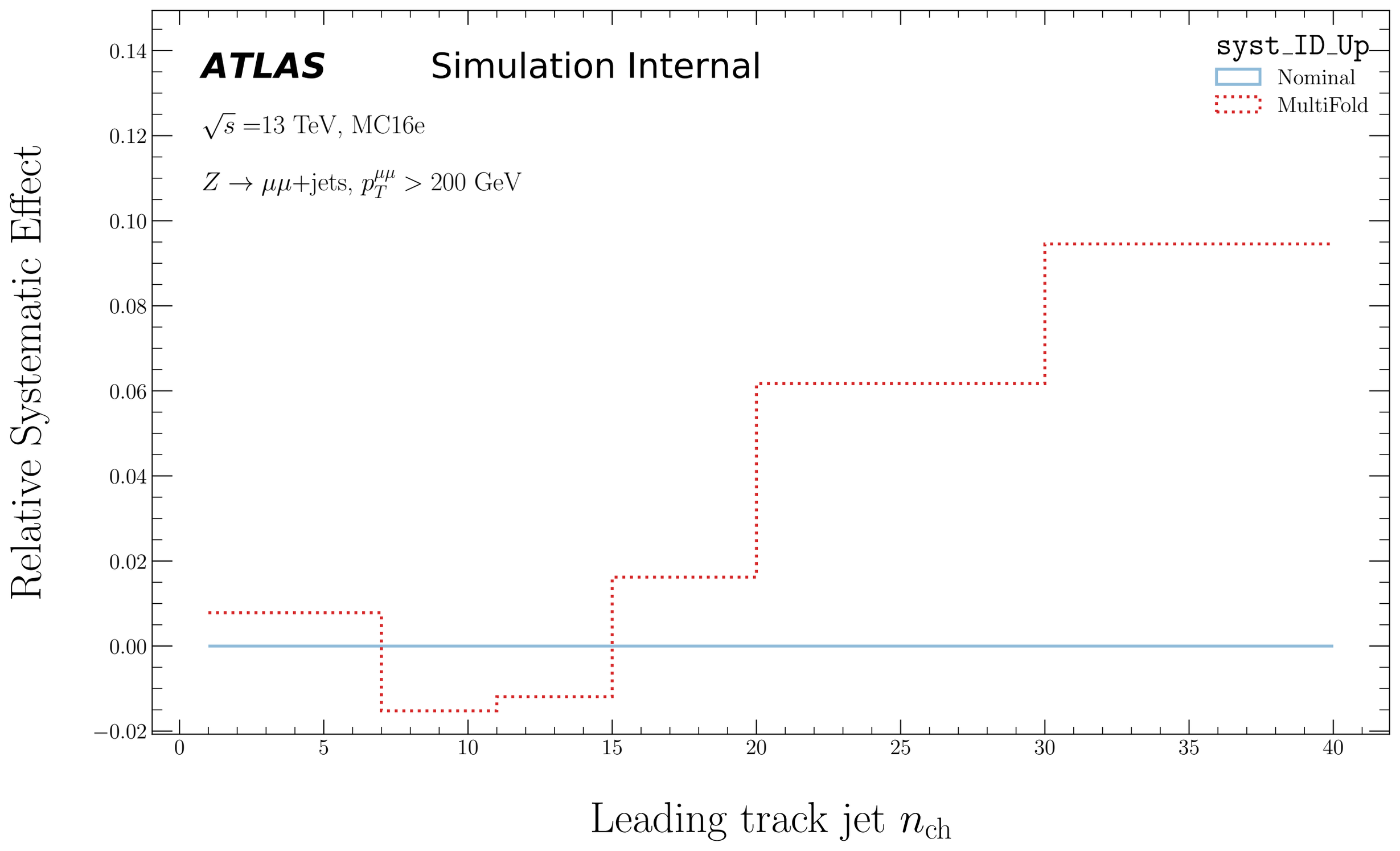
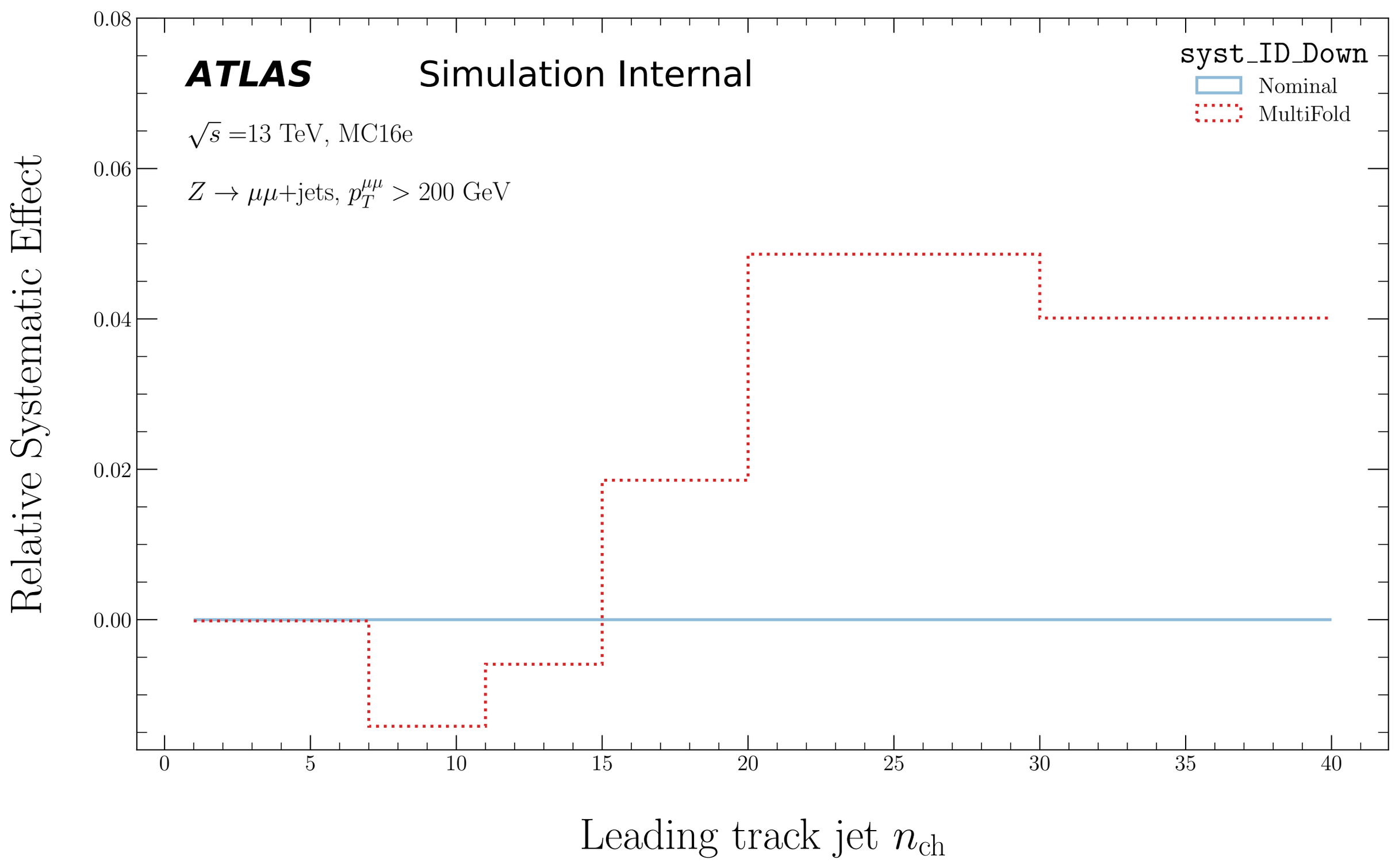
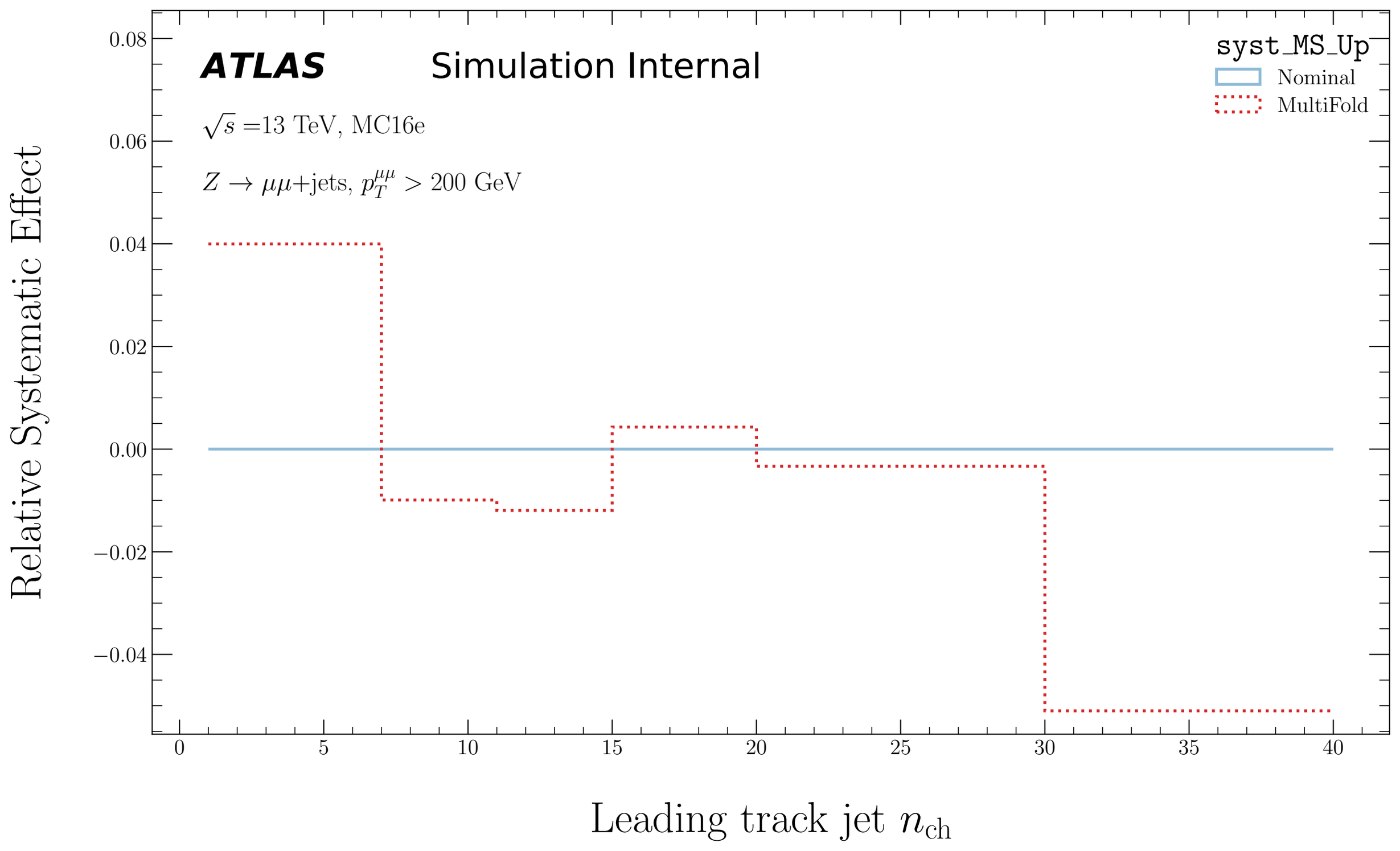
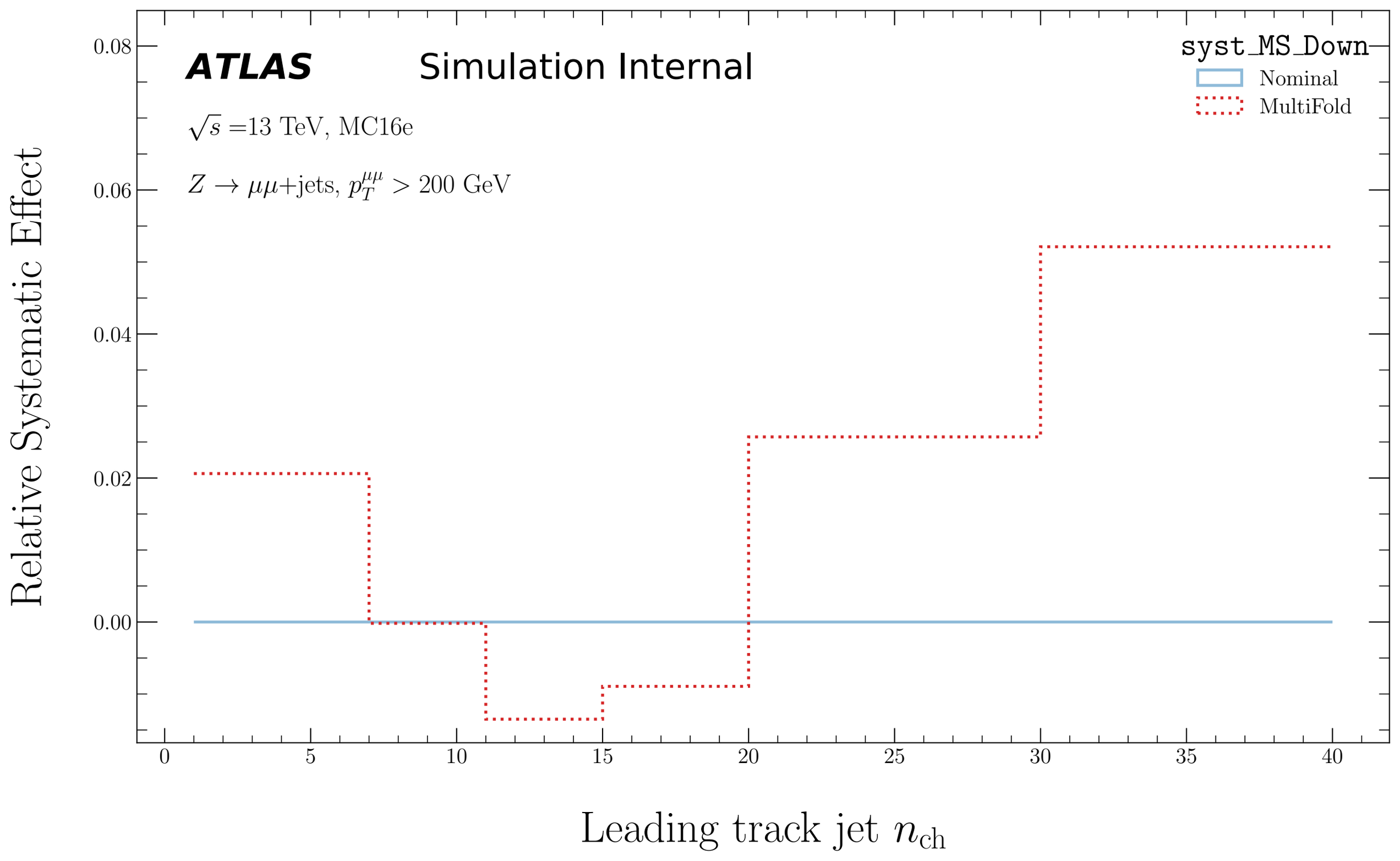
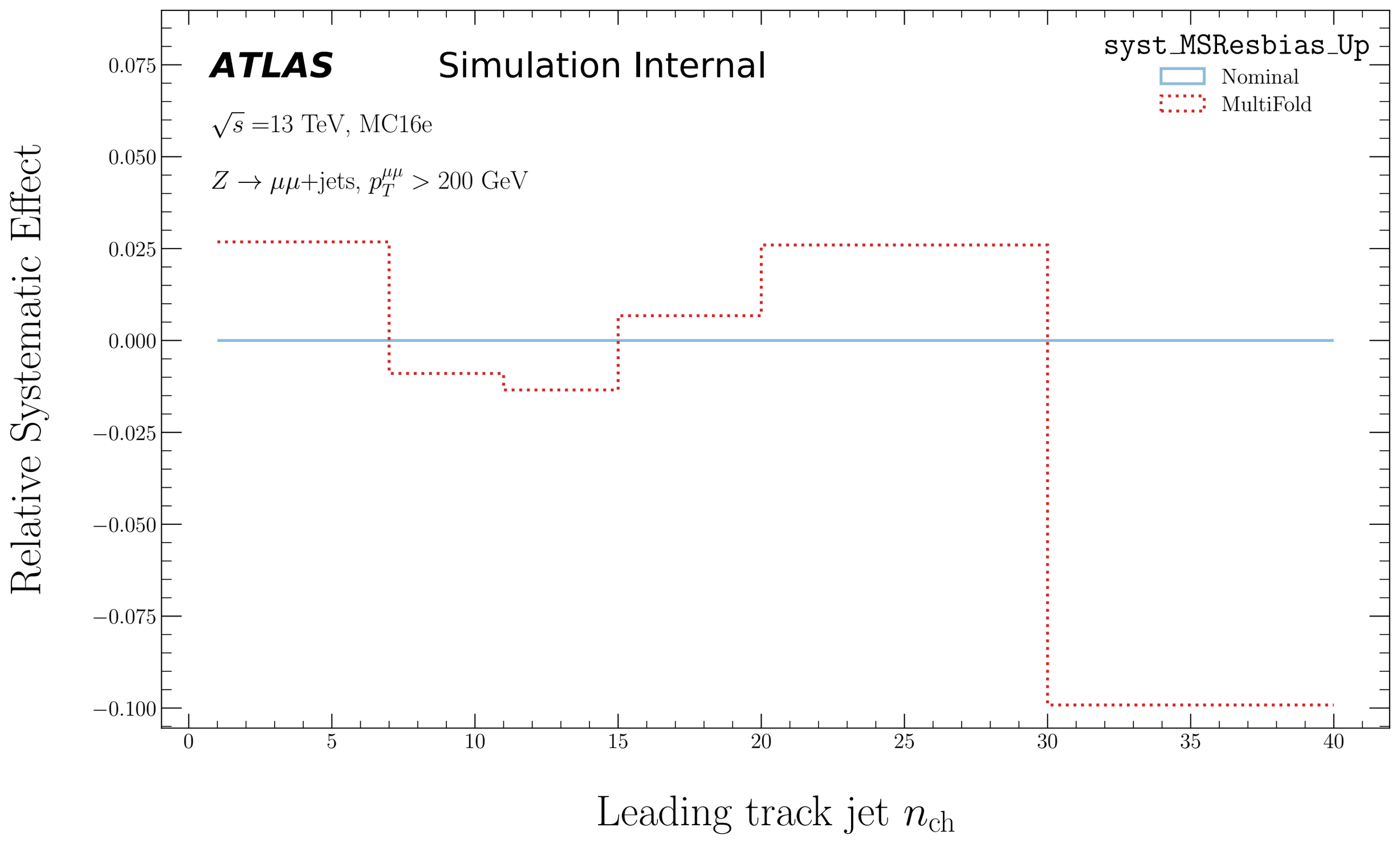
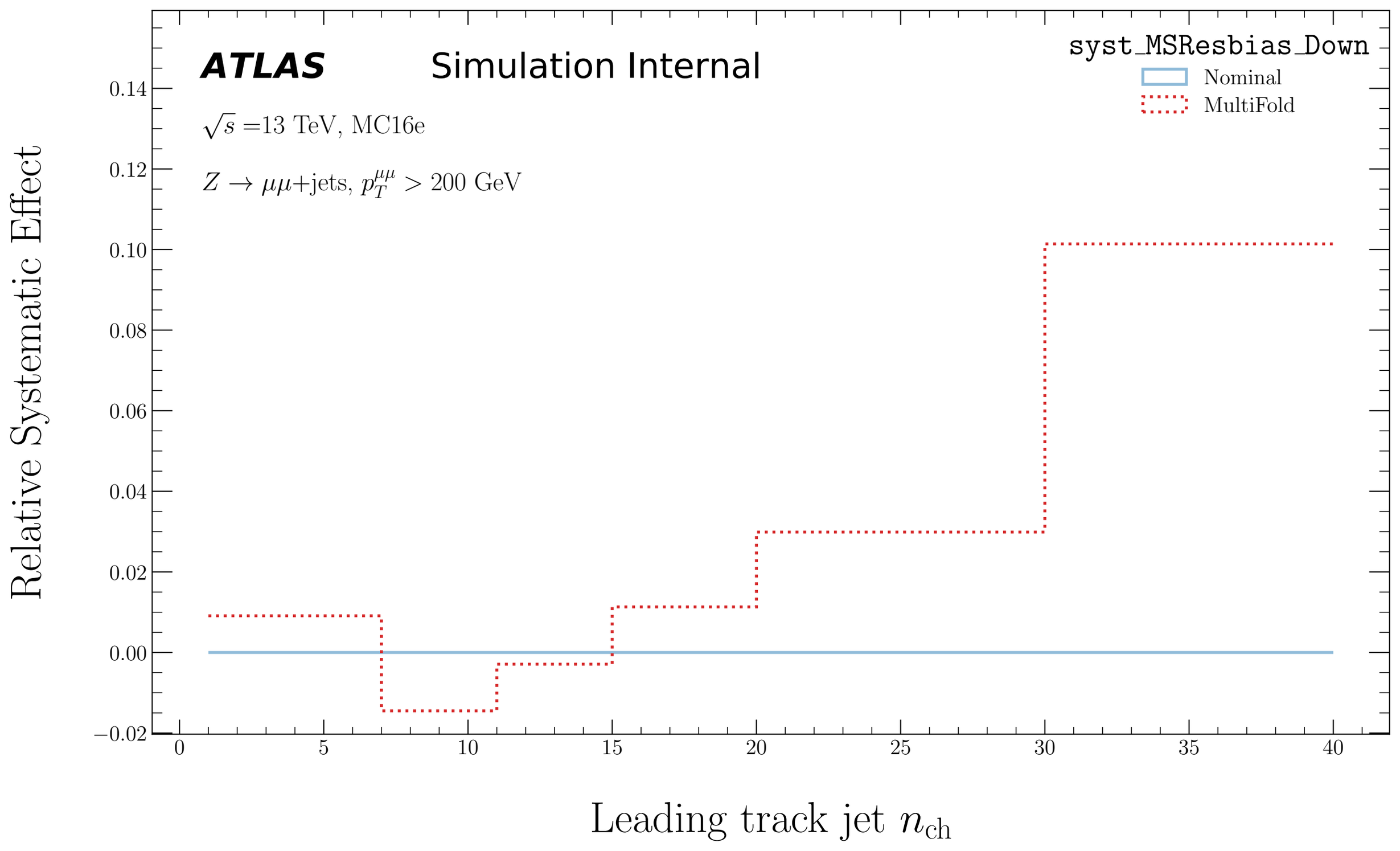

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet n_{ch}
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
5
10
15
20
25
30
35
40

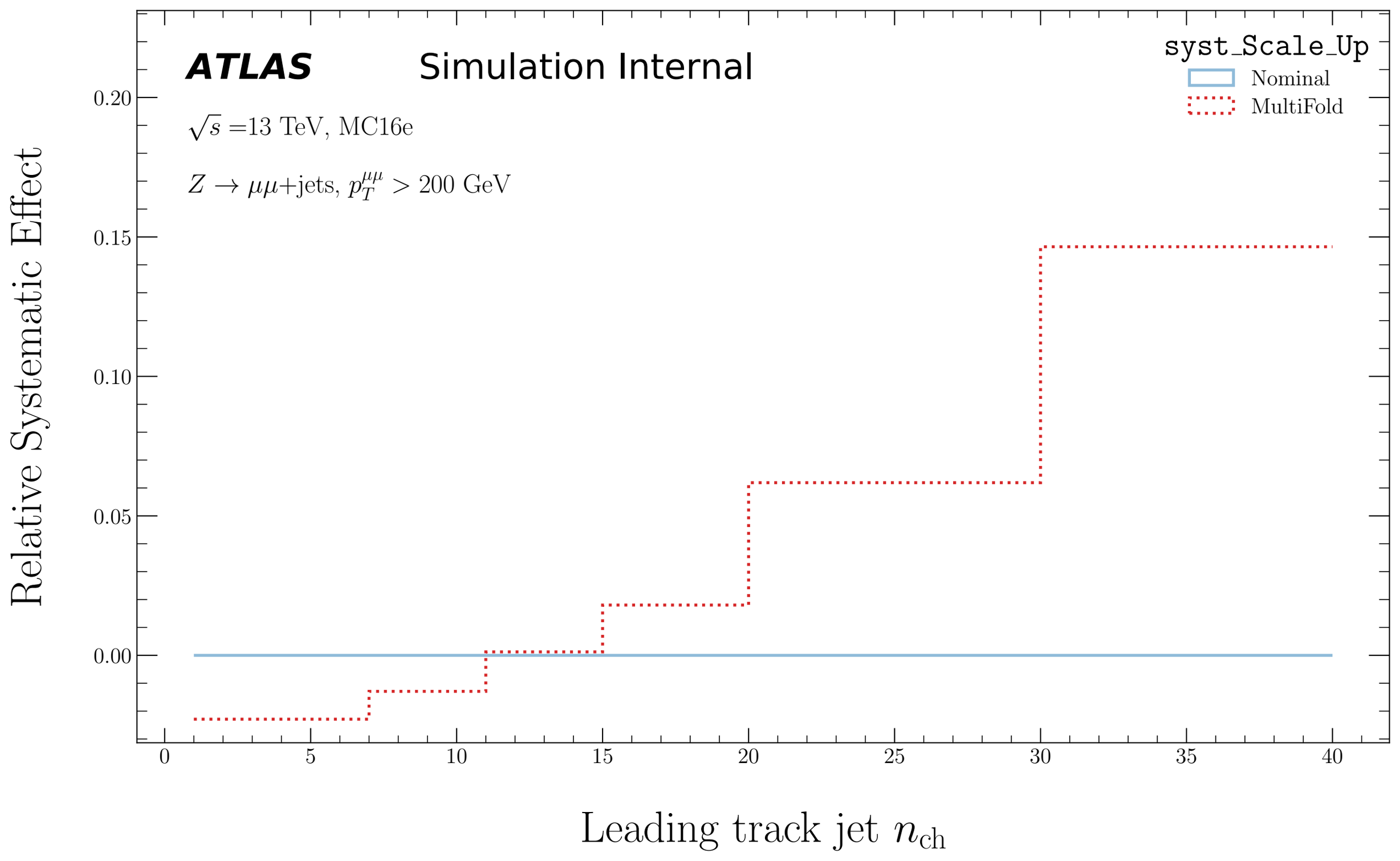

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
5
10
15
20
25
30
35
40
Leading track jet n_{ch}

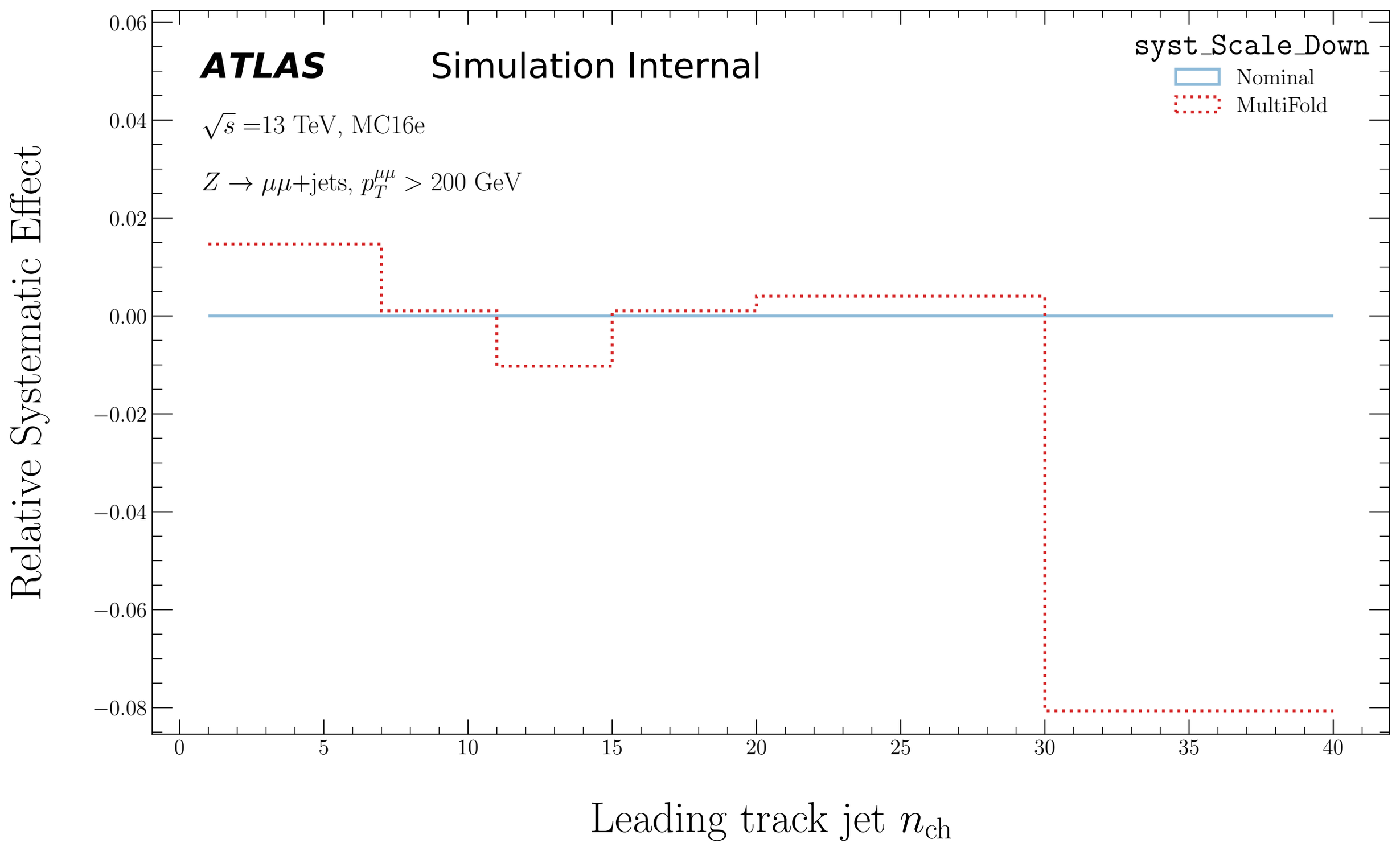

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet n_{ch}
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
0
5
10
15
20
25
30
35
40

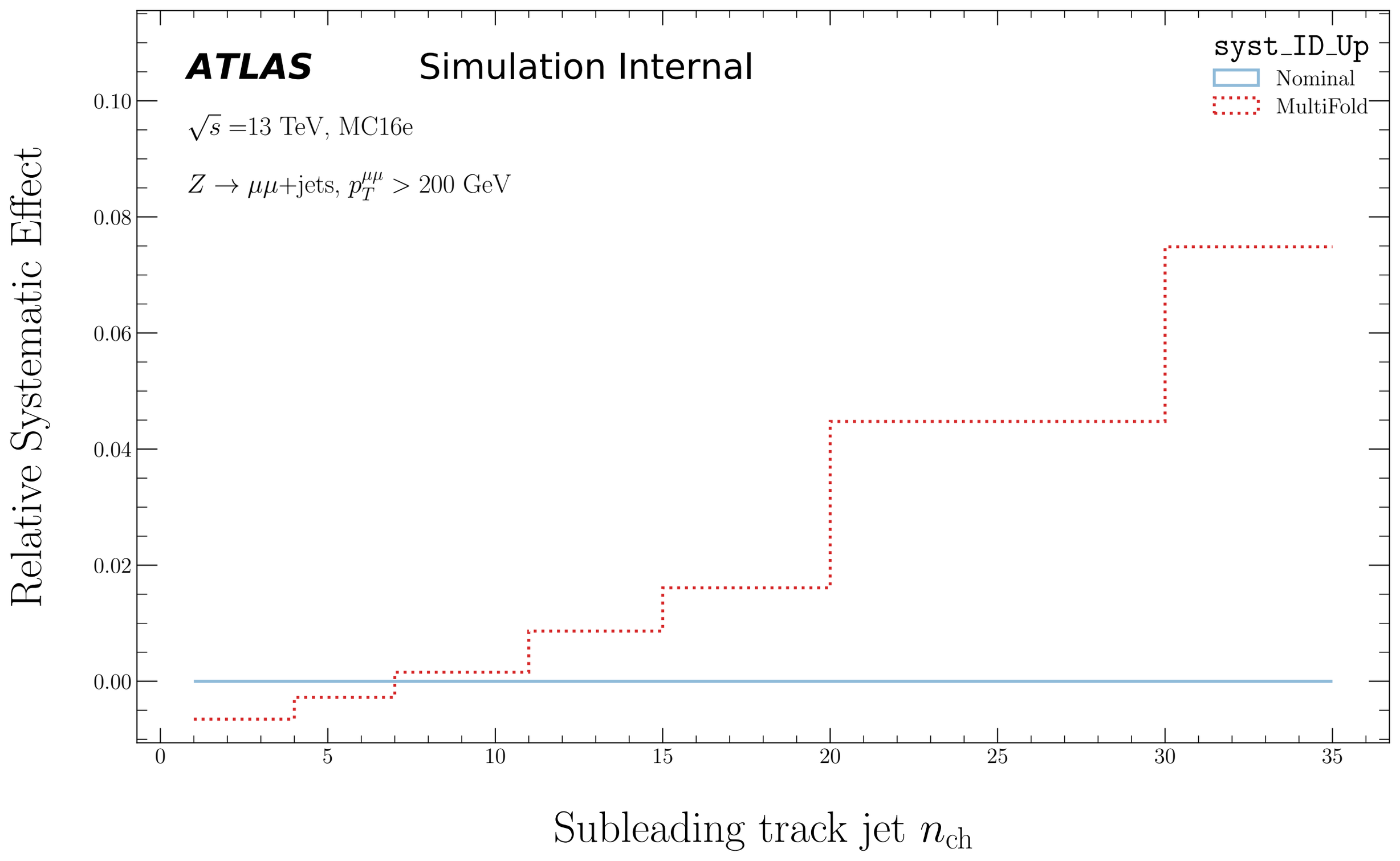

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
5
10
15
20
25
30
35
40
Leading track jet n_{ch}

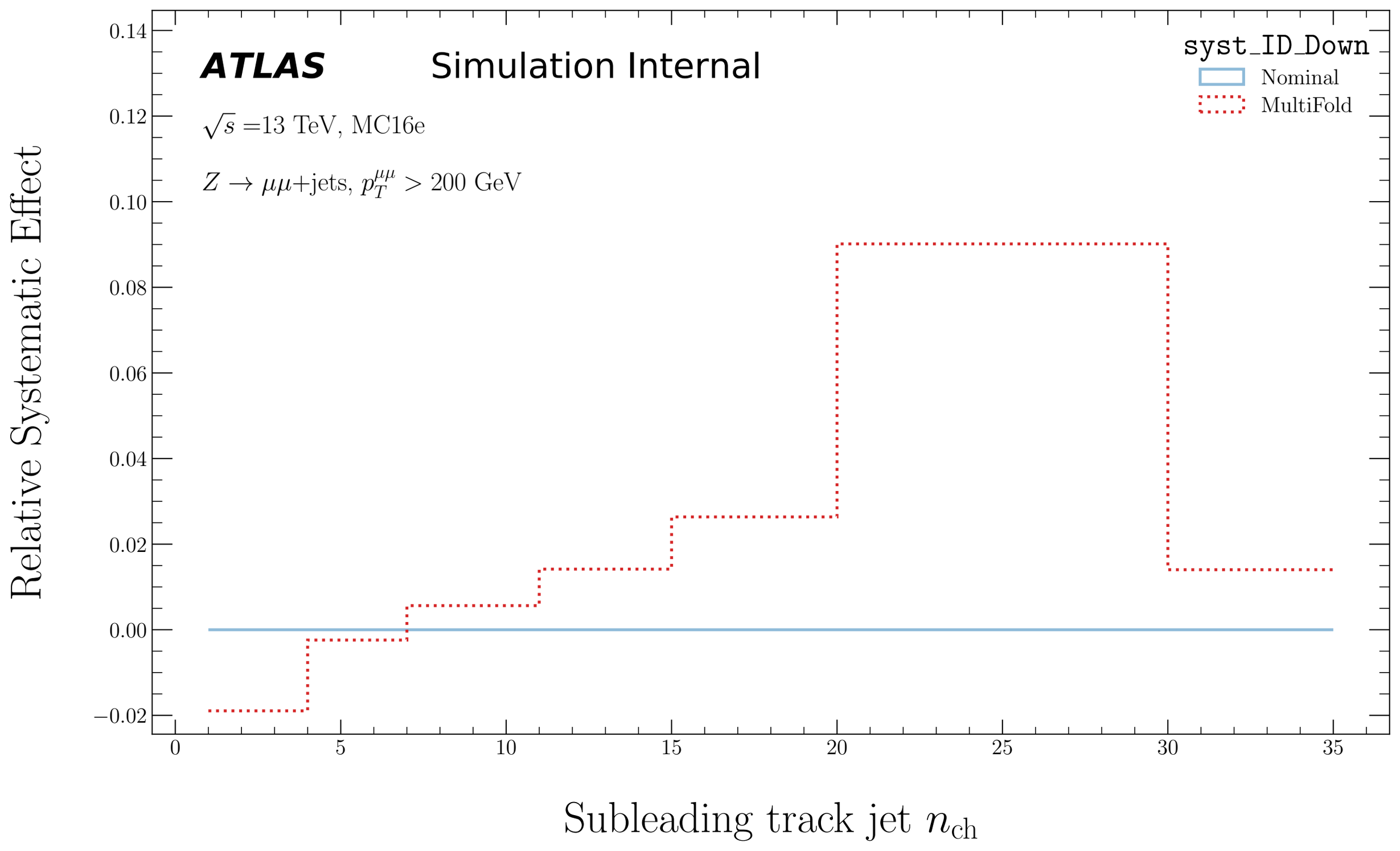

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
0
5
10
15
20
25
30
35
40
Leading track jet n_{ch}

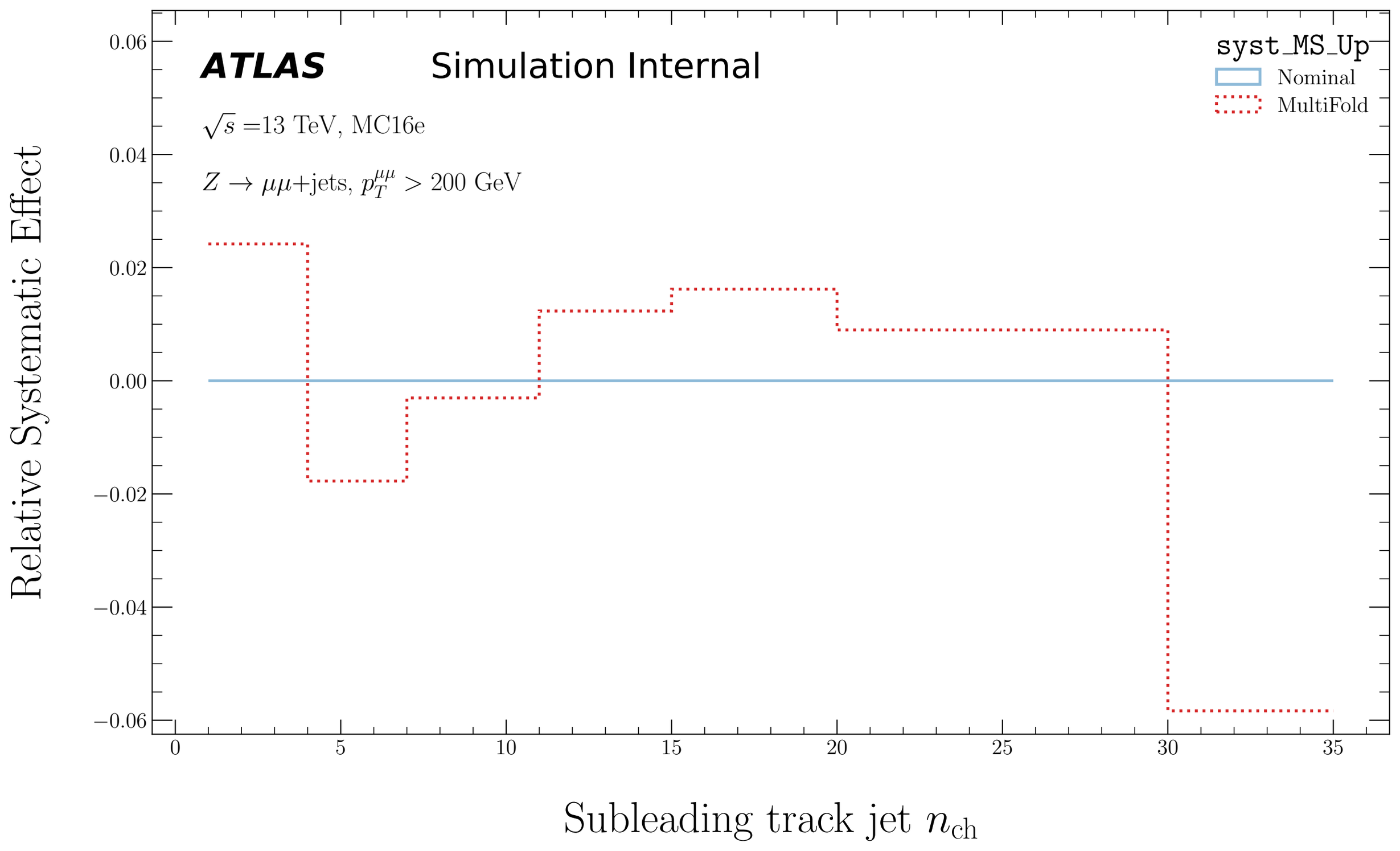

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet n_{ch}
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
5
10
15
20
25
30
35
40

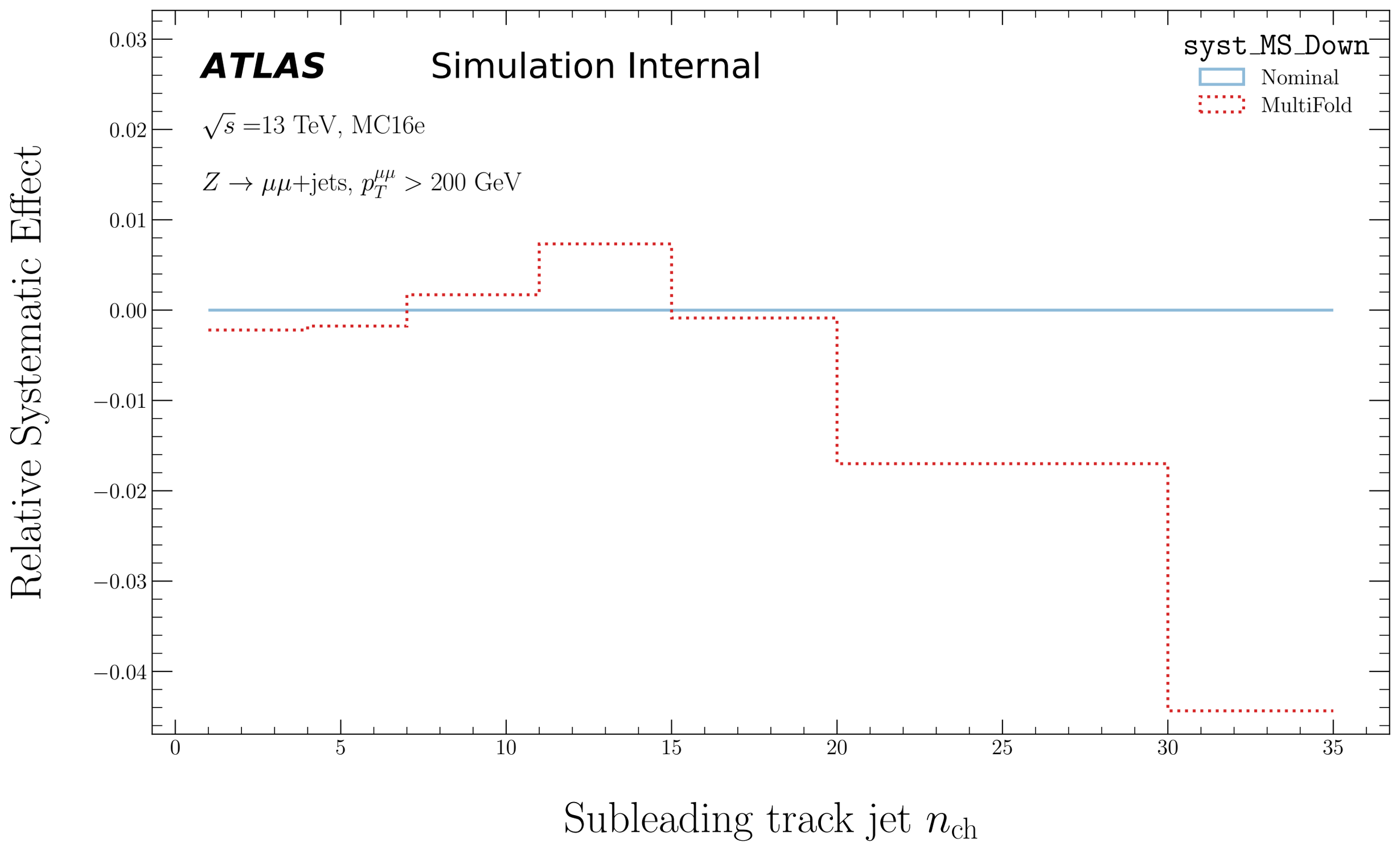

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25
30
35
40
Leading track jet n_{ch}

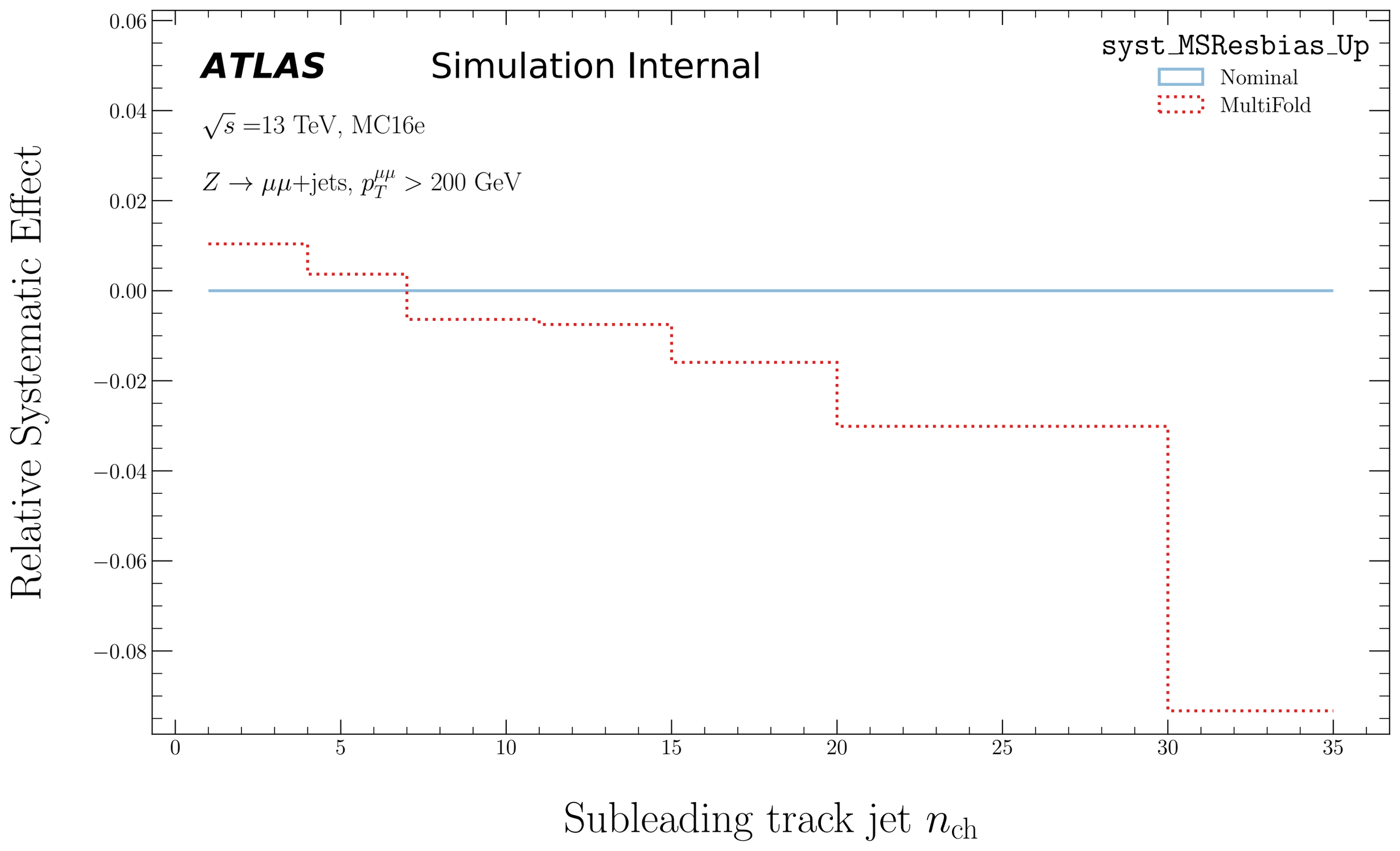

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet n_{ch}
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0
5
10
15
20
25
30
35
40

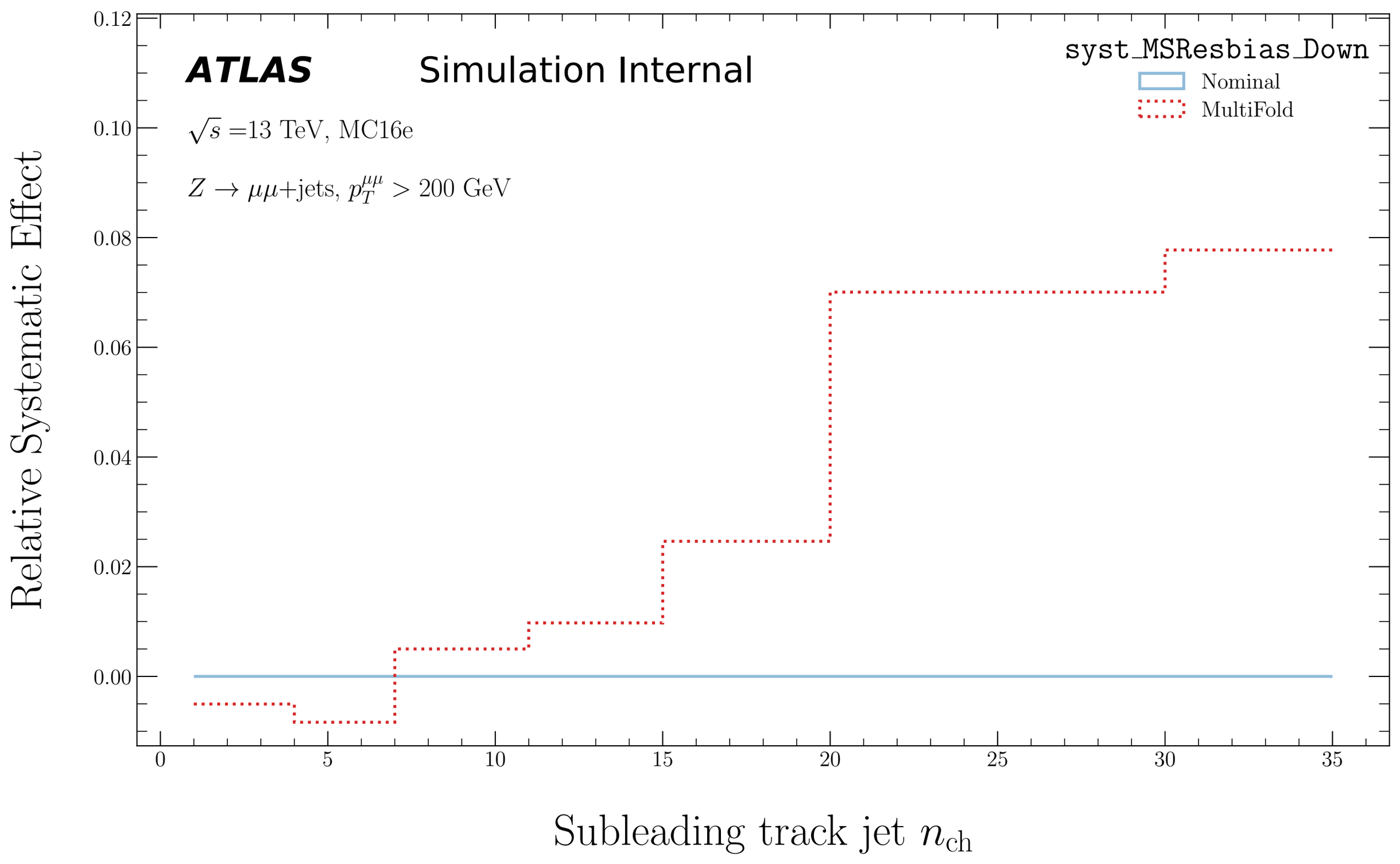

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
0
5
10
15
20
25
30
35
Subleading track jet n_{ch}

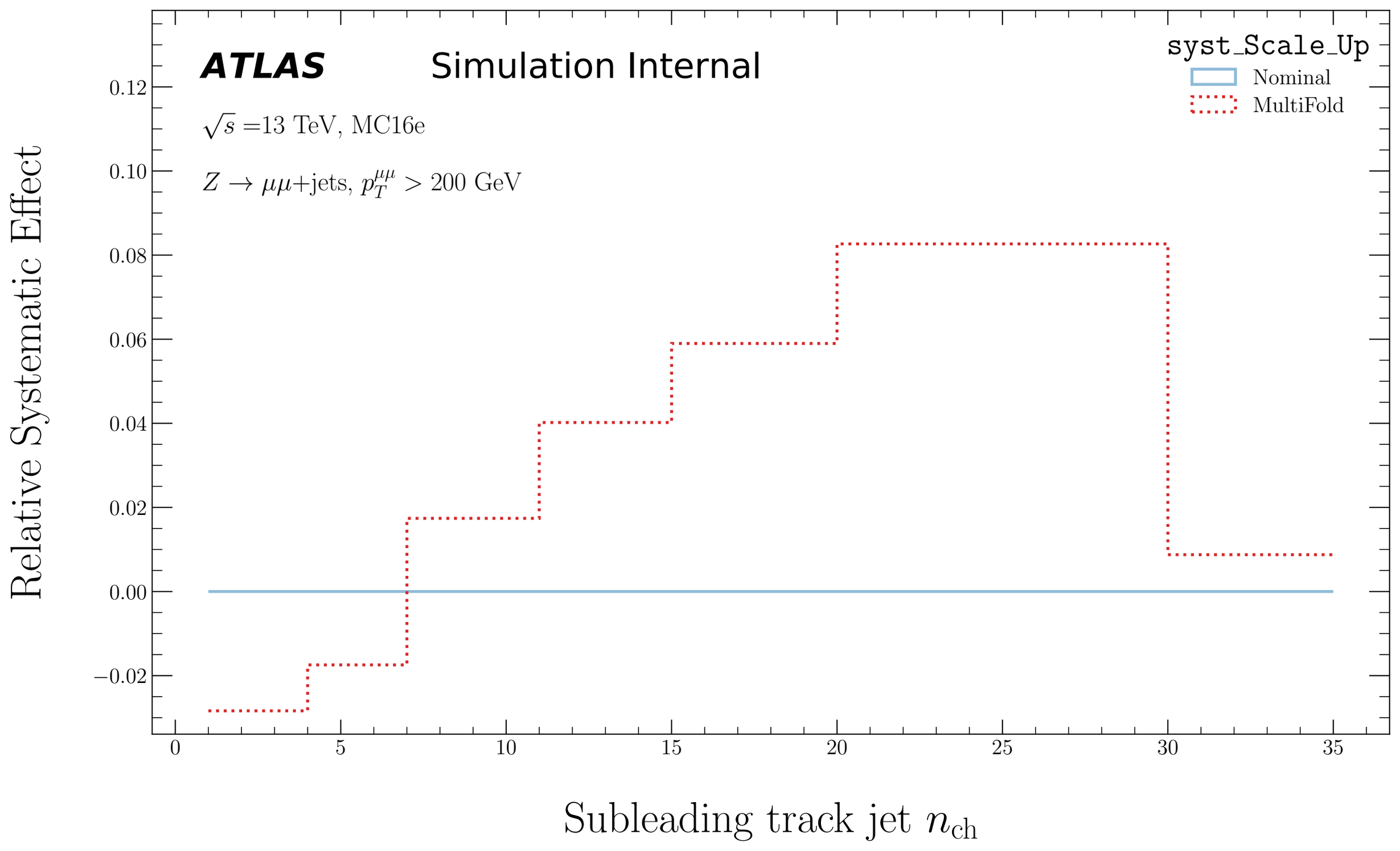

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
5
10
15
20
25
30
35

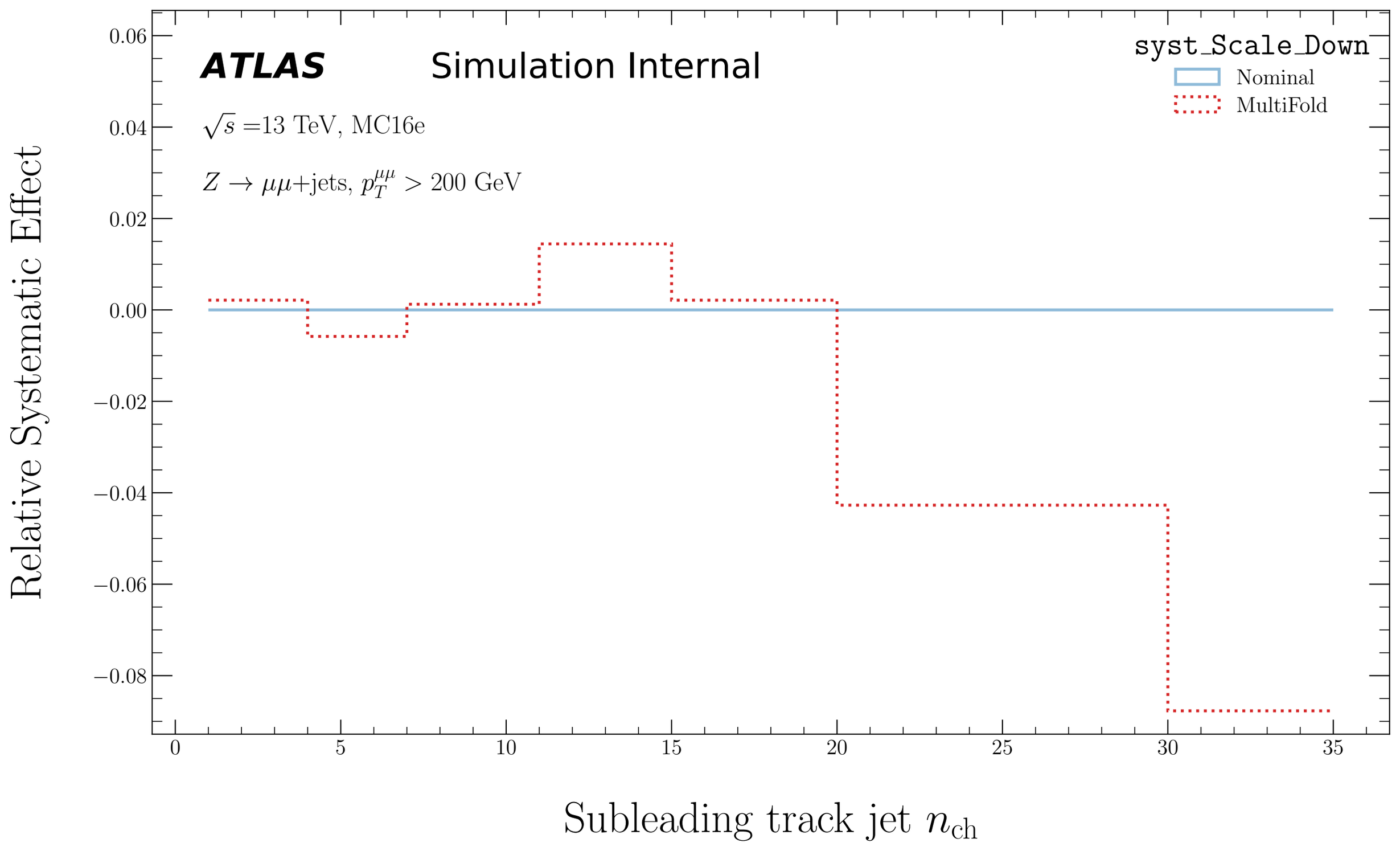

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0
5
10
15
20
25
30
35

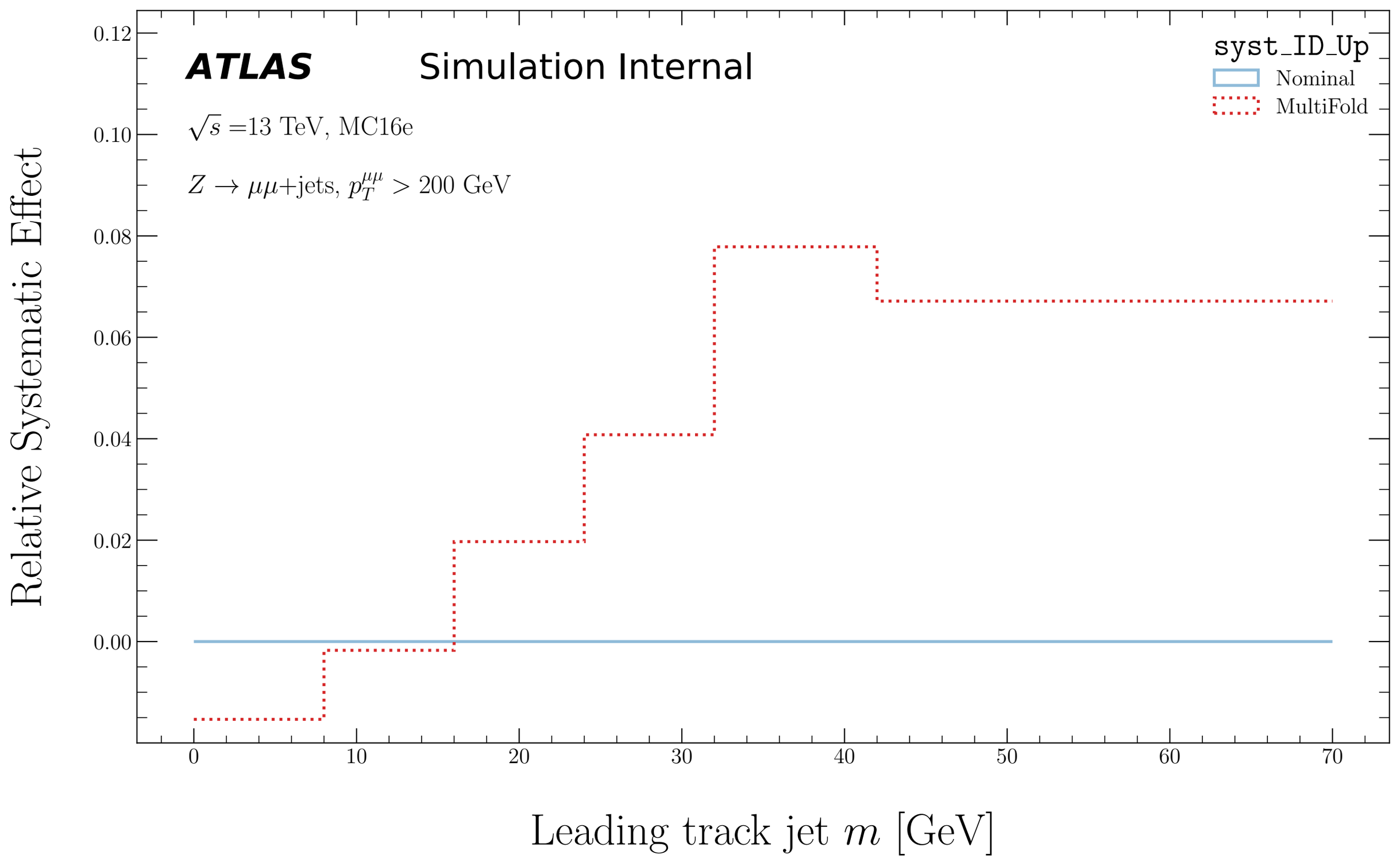

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0
5
10
15
20
25
30
35

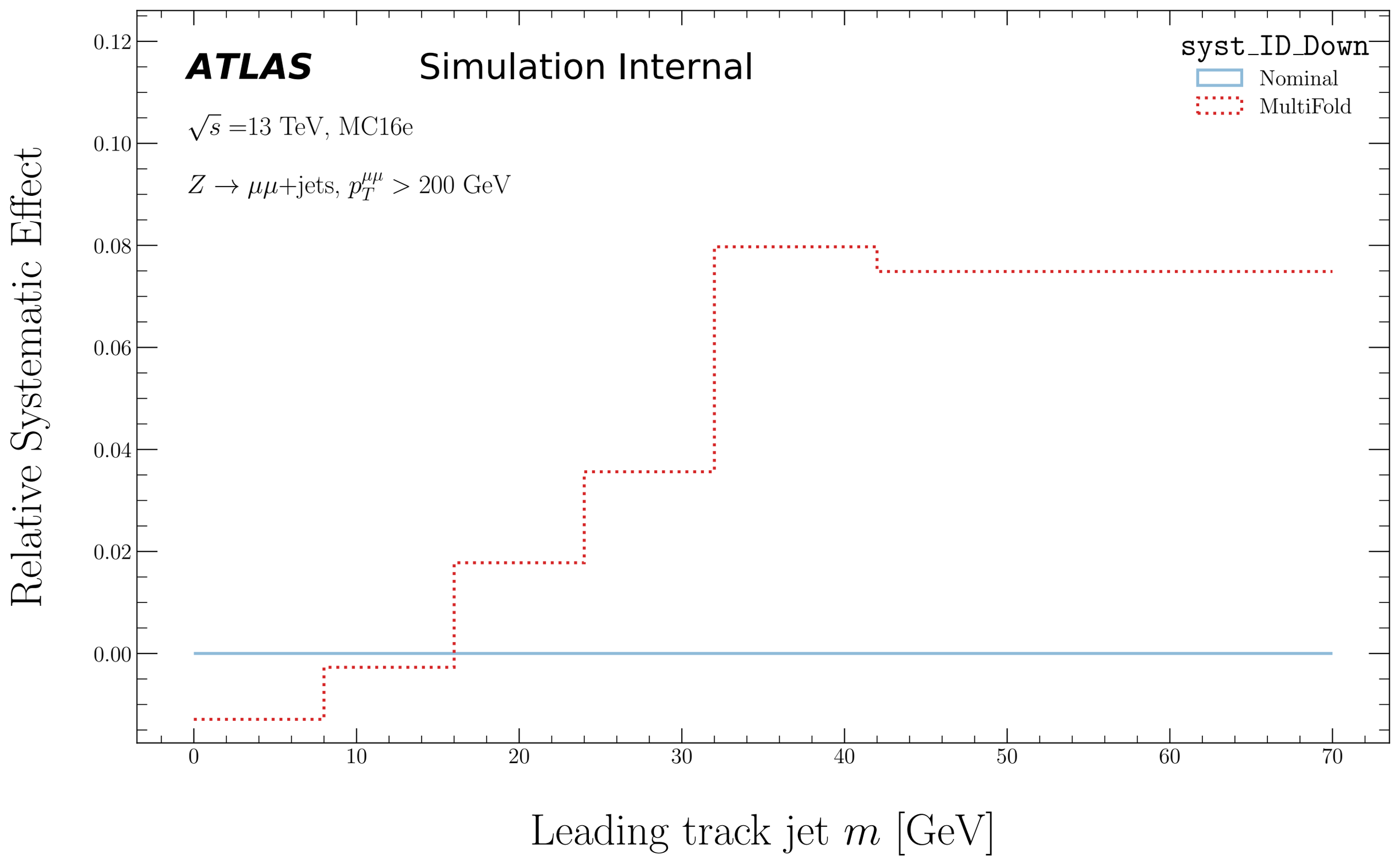

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0
5
10
15
20
25
30
35

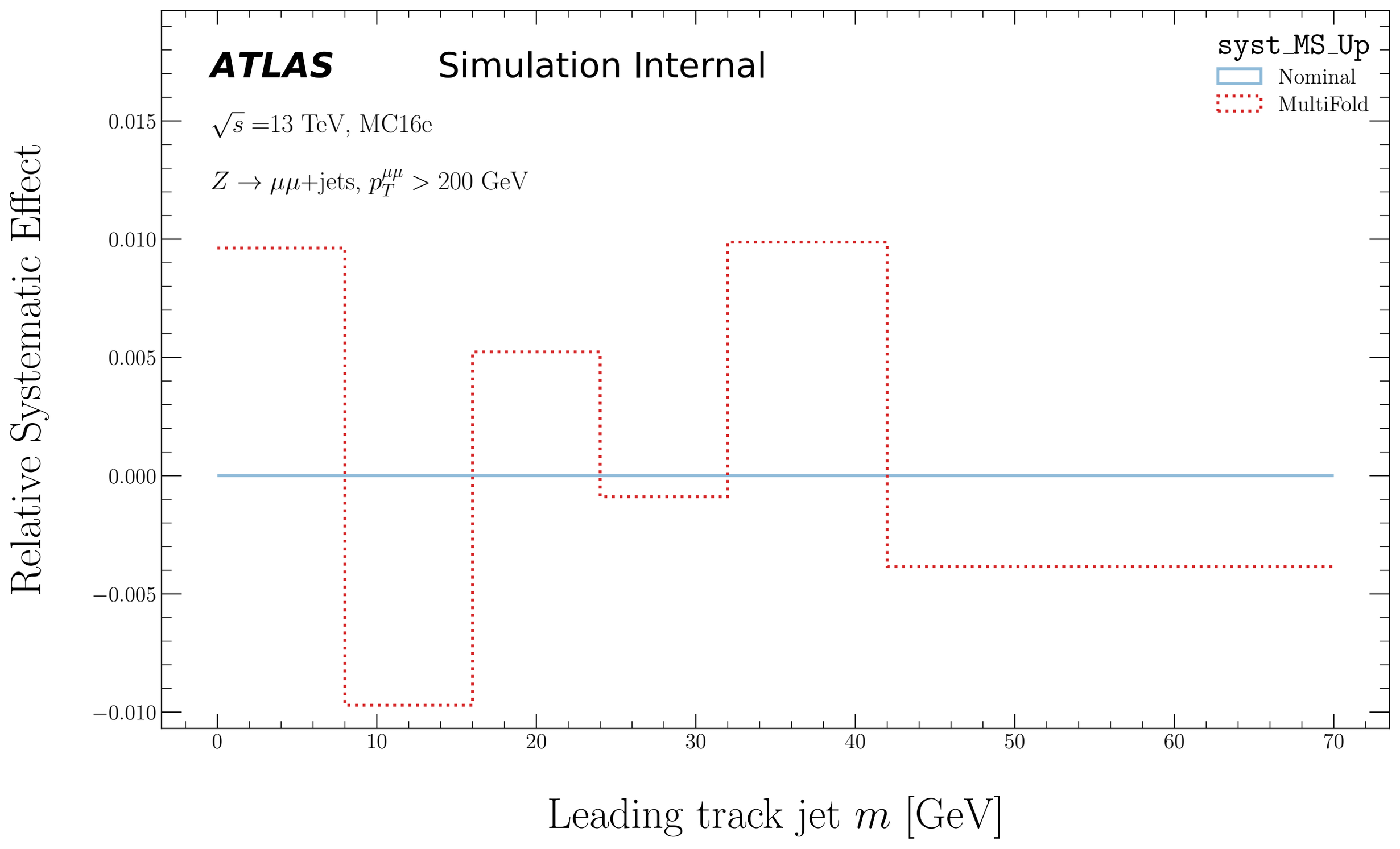

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
5
10
15
20
25
30
35

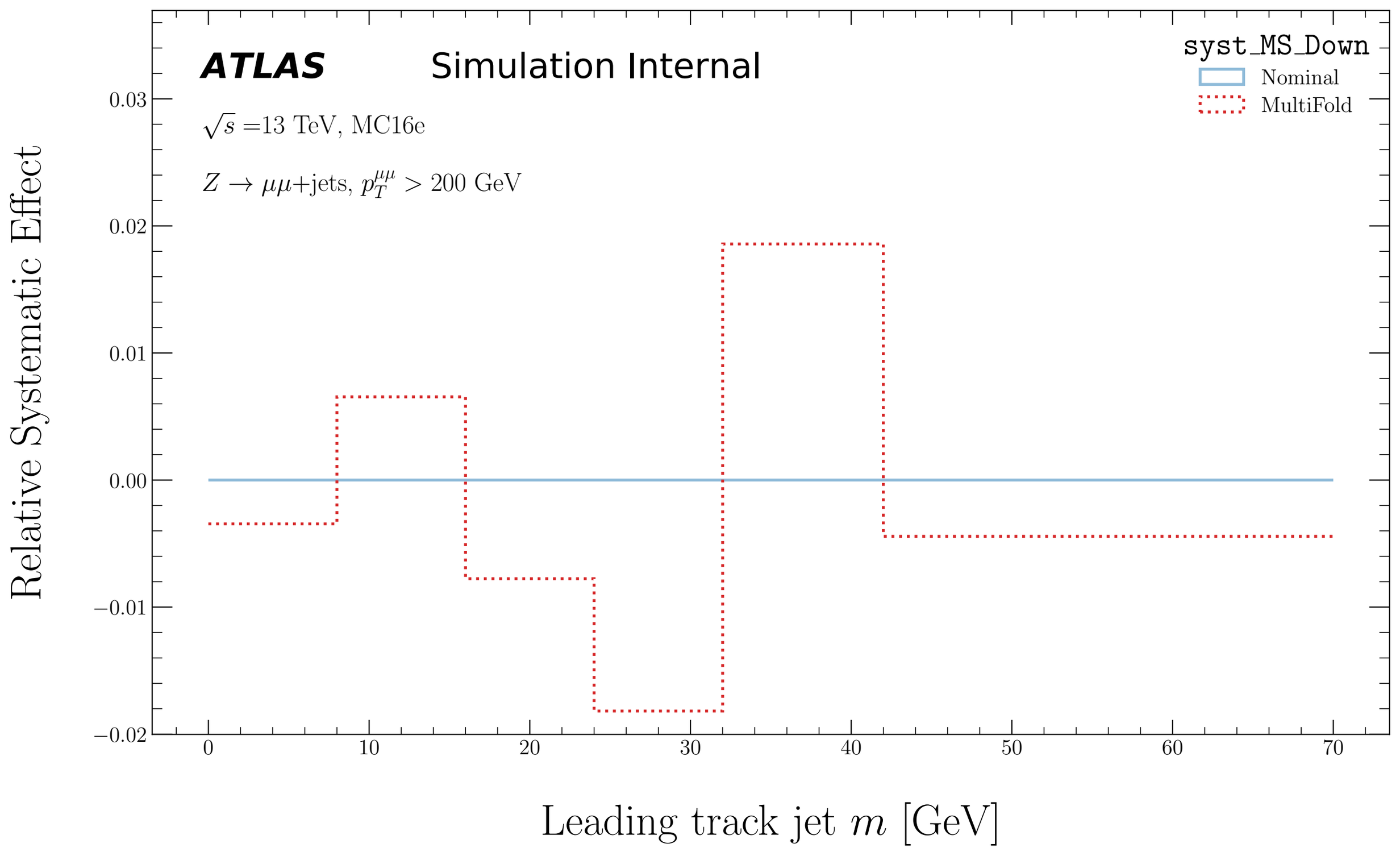

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
5
10
15
20
25
30
35

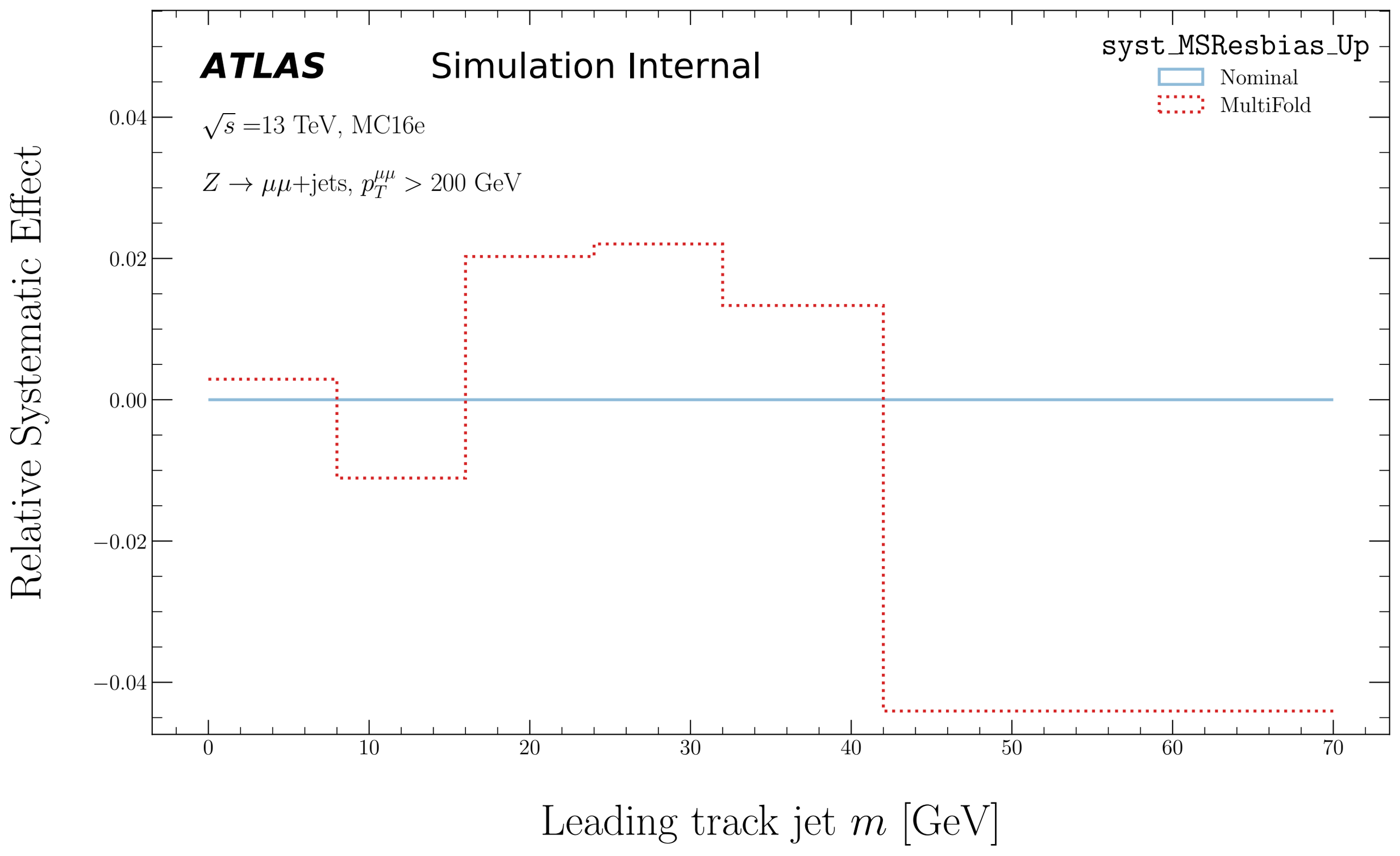

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet n_{ch}
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0
5
10
15
20
25
30
35

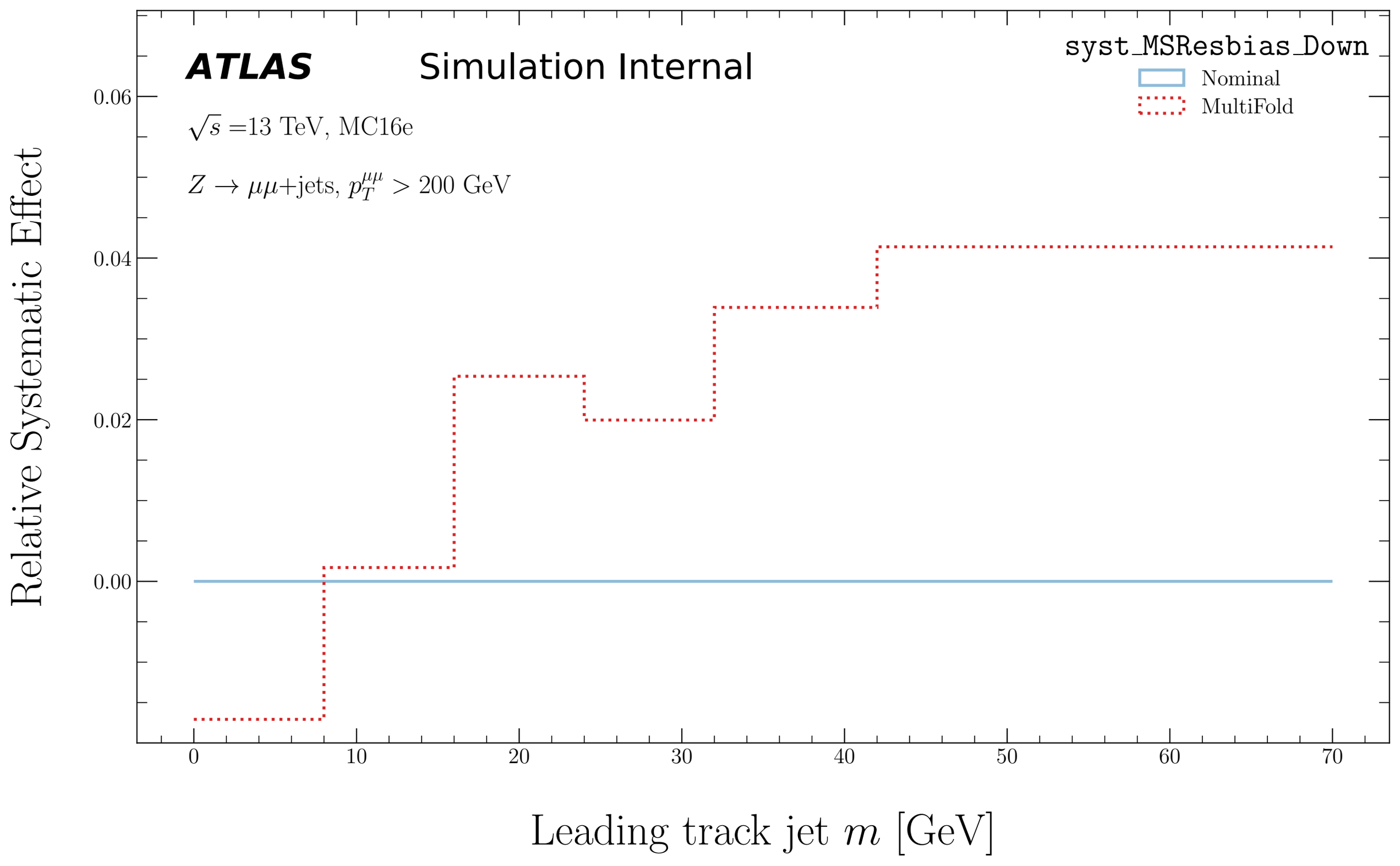

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

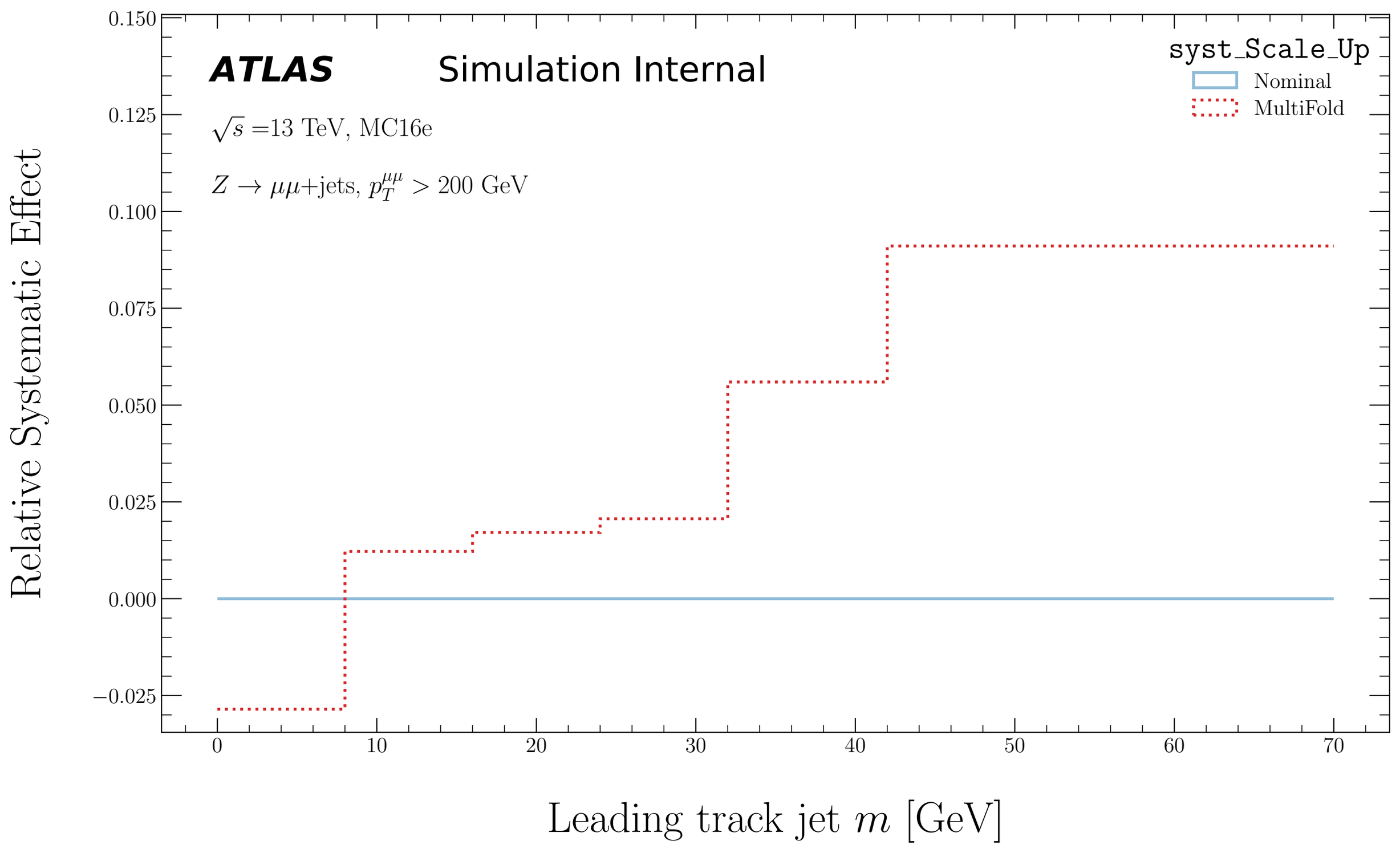

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

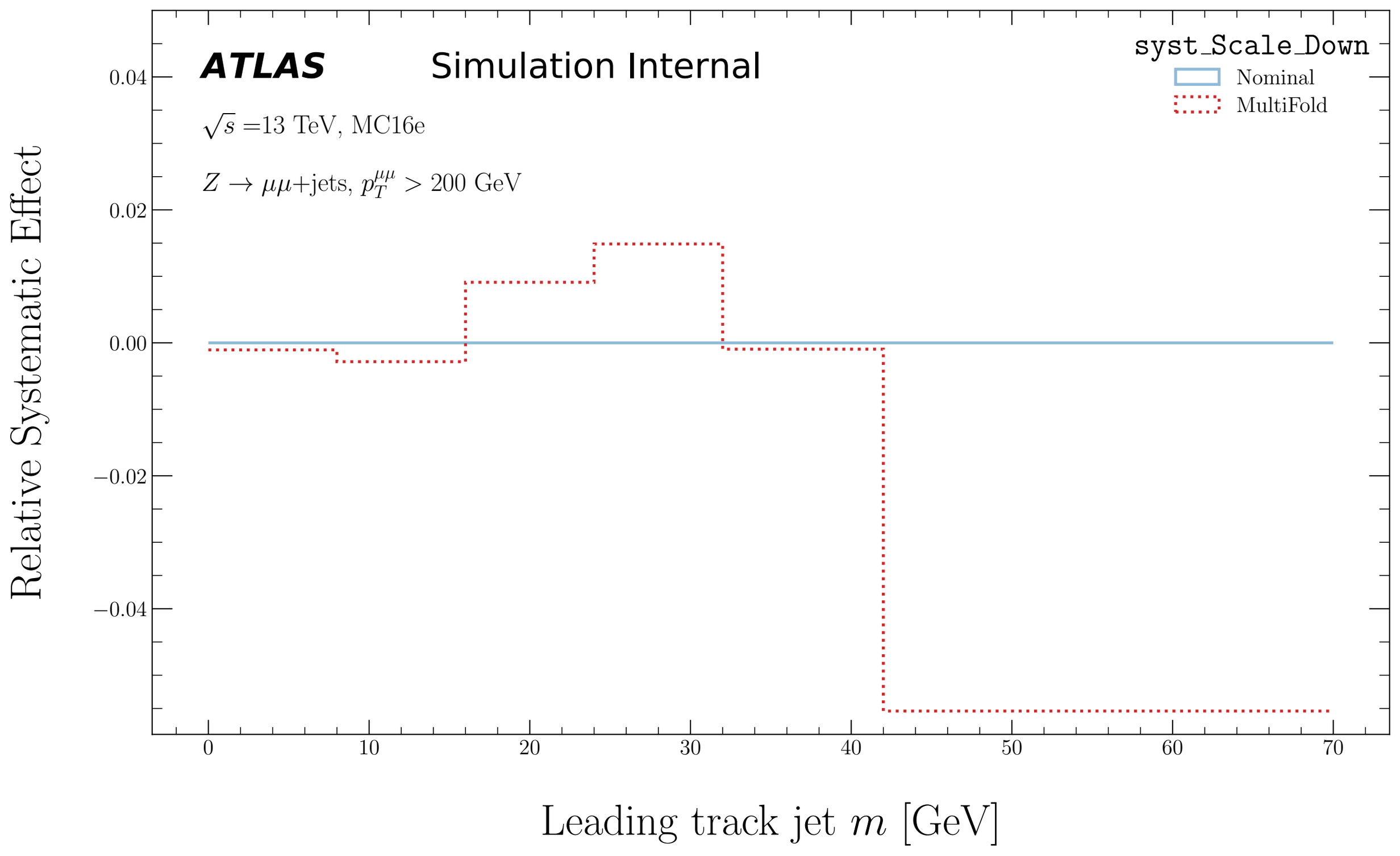

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.015
0.010
0.005
0.000
−0.005
−0.010
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

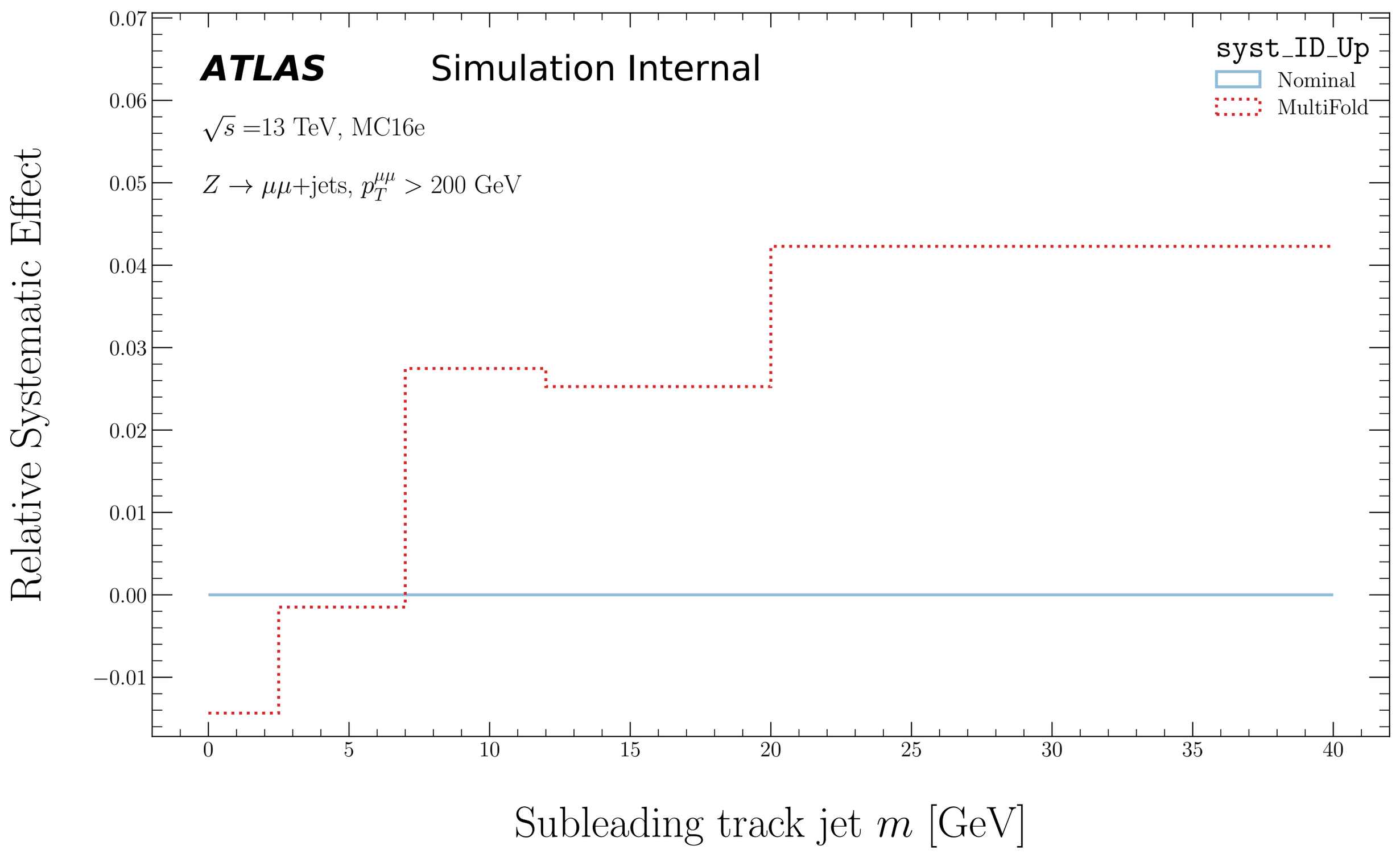

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−0.02
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

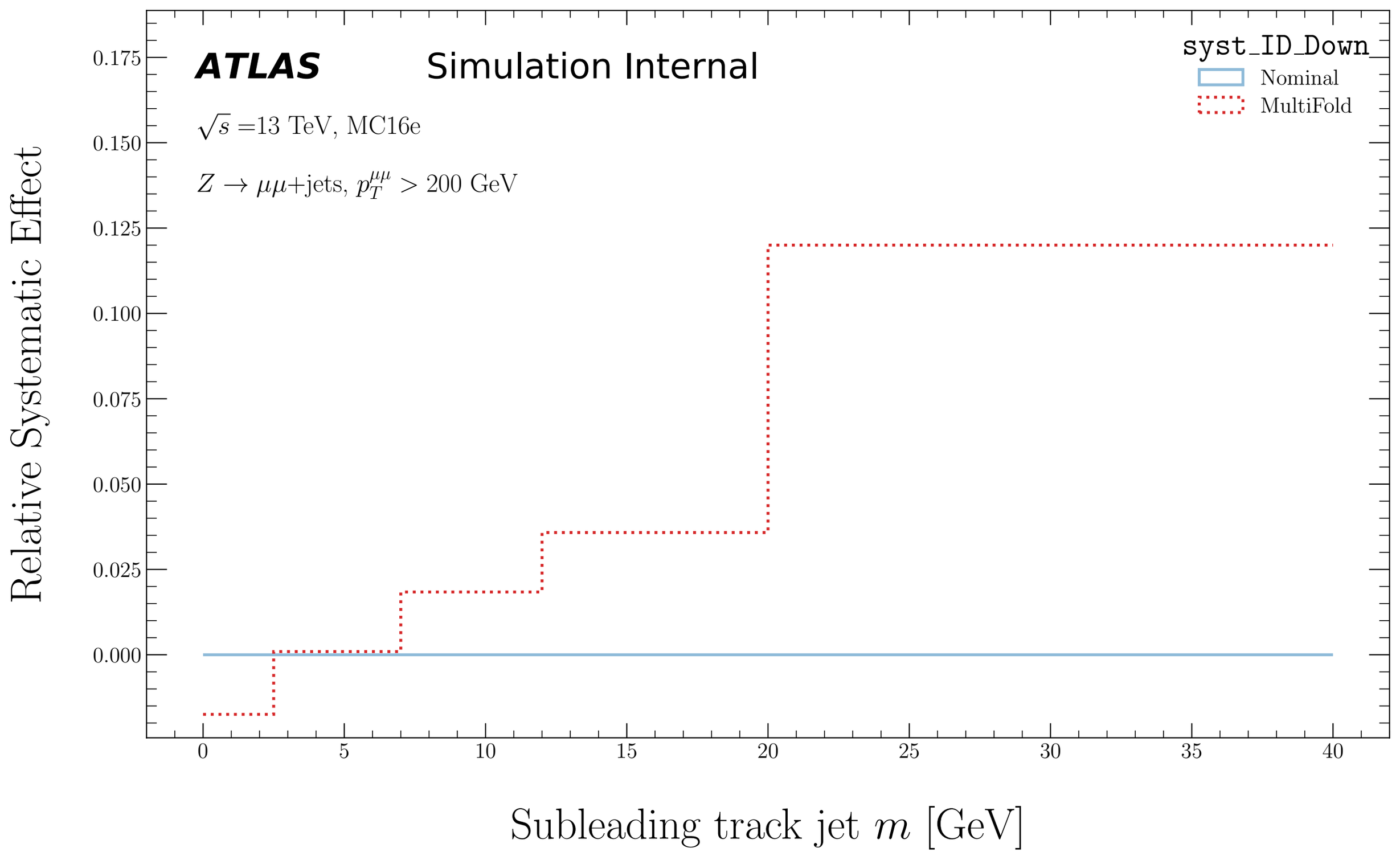

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

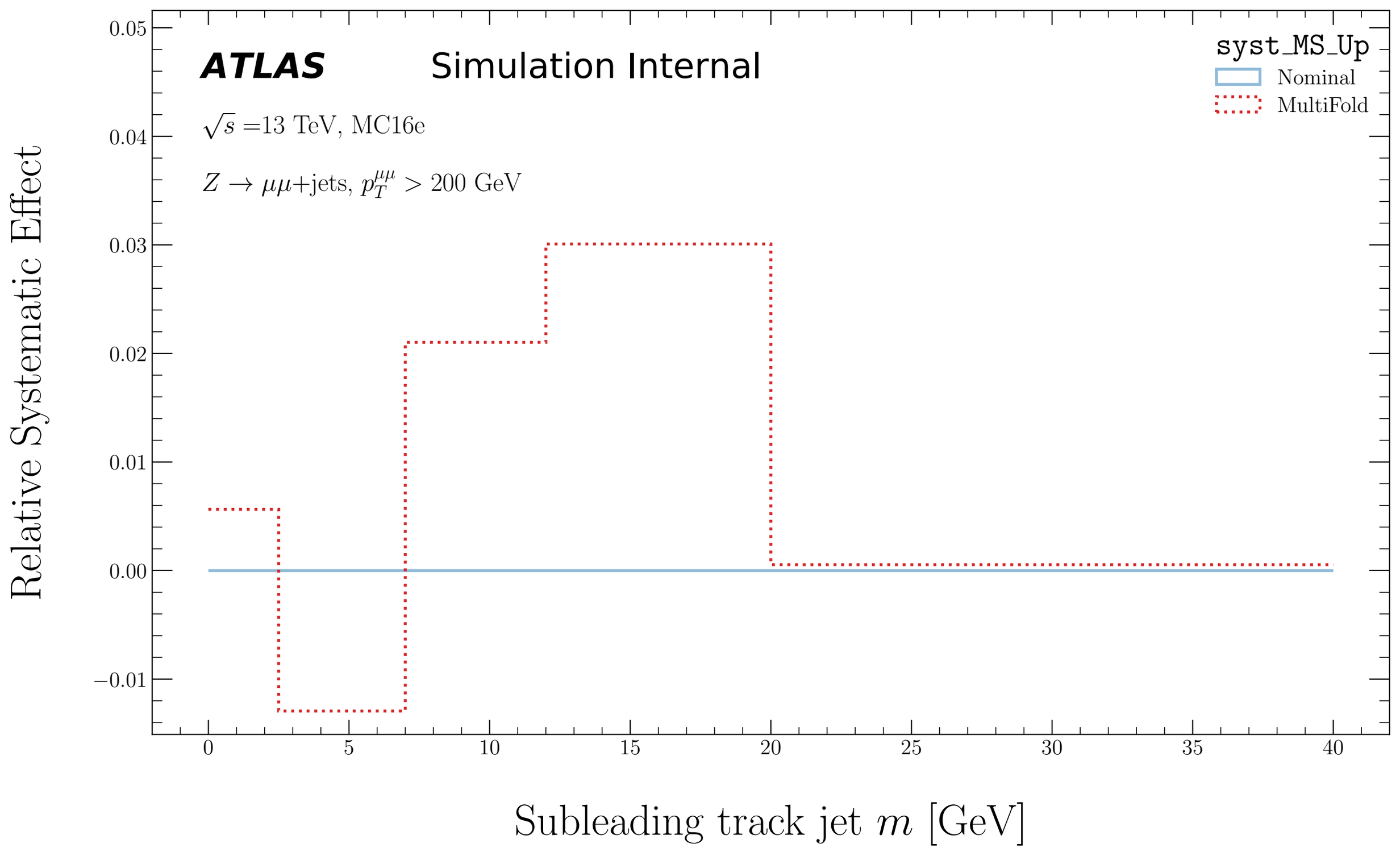

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

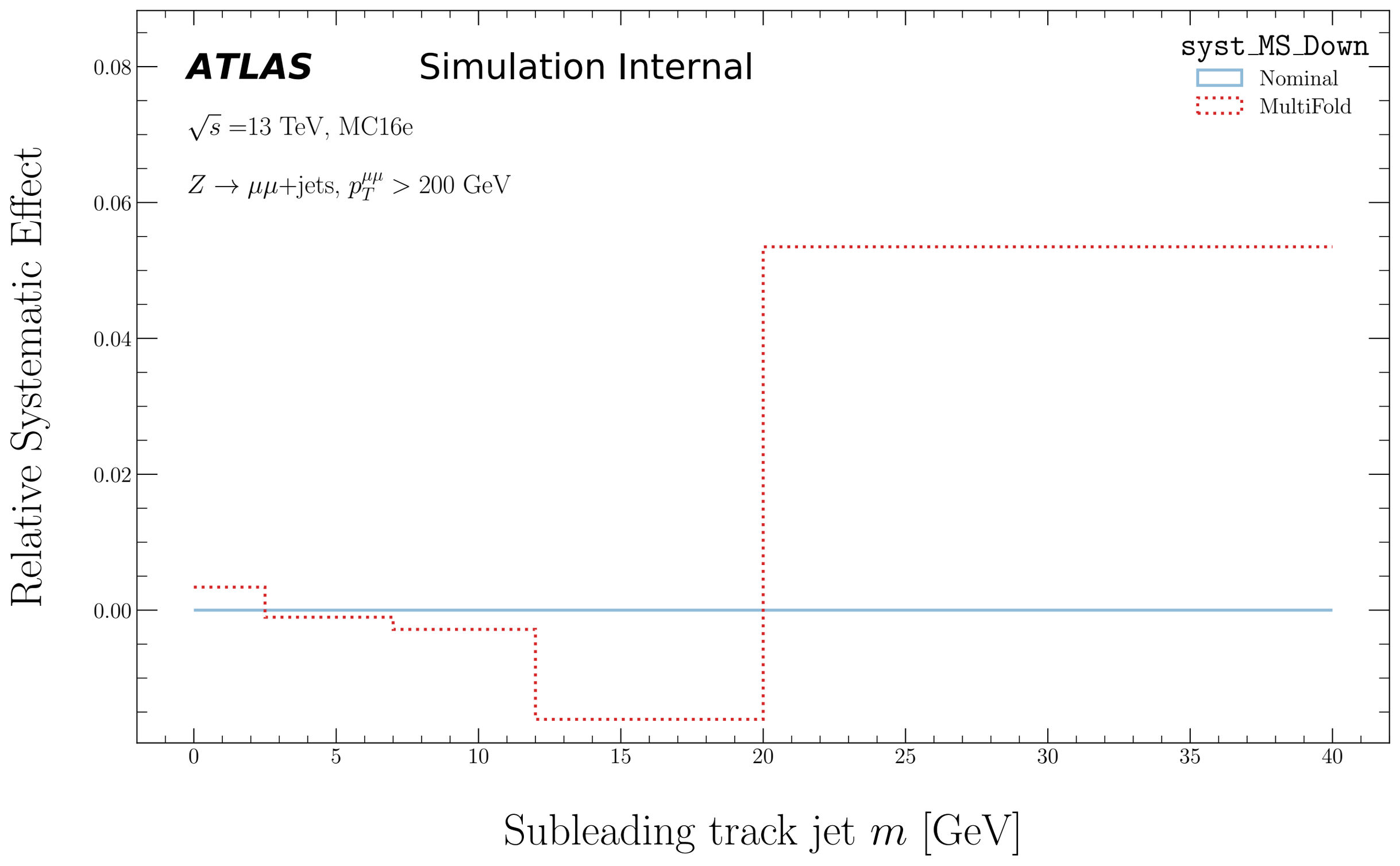

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet m [GeV]
0.150
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
0
10
20
30
40
50
60
70

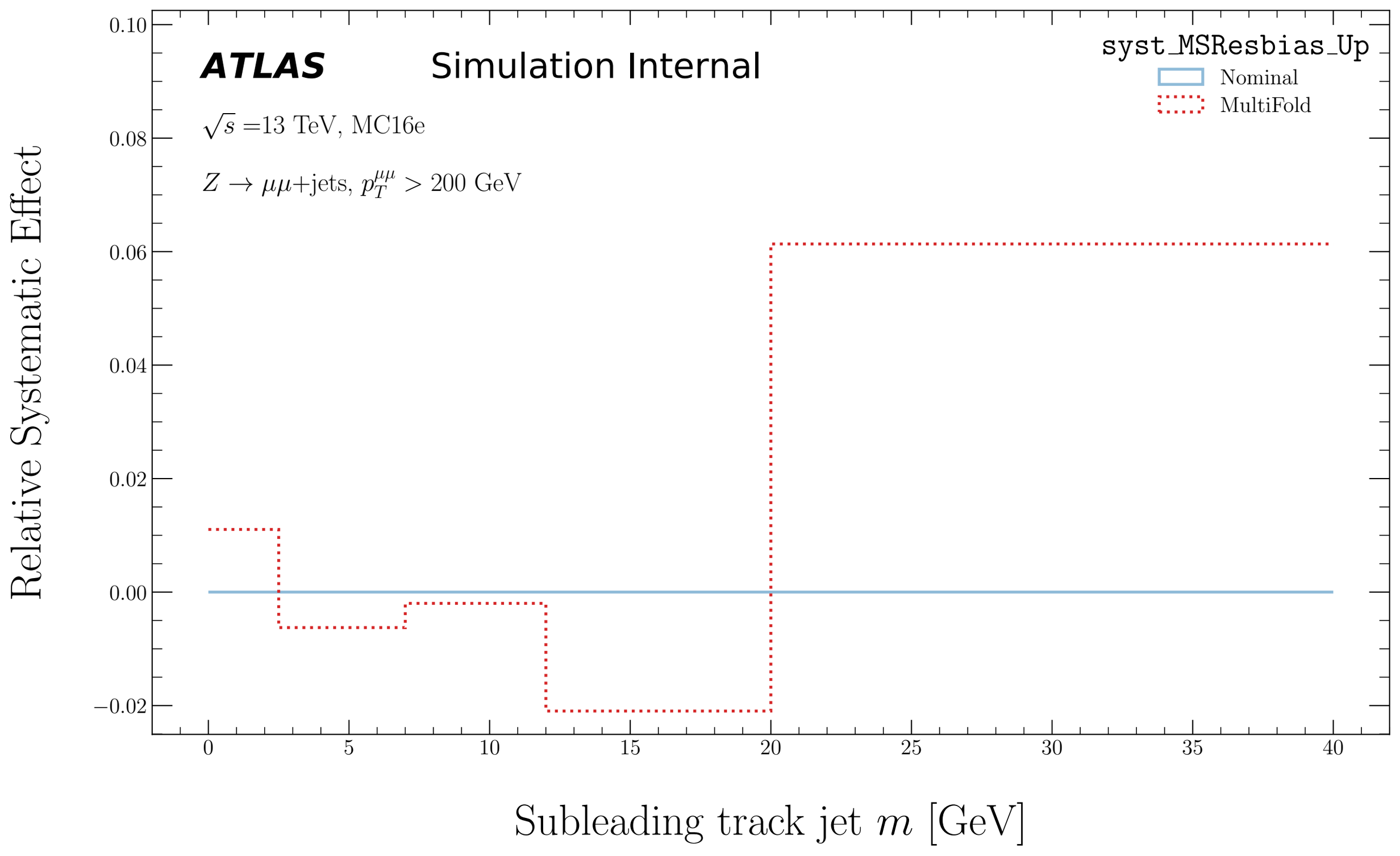

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
0
10
20
30
40
50
60
70
Leading track jet m [GeV]

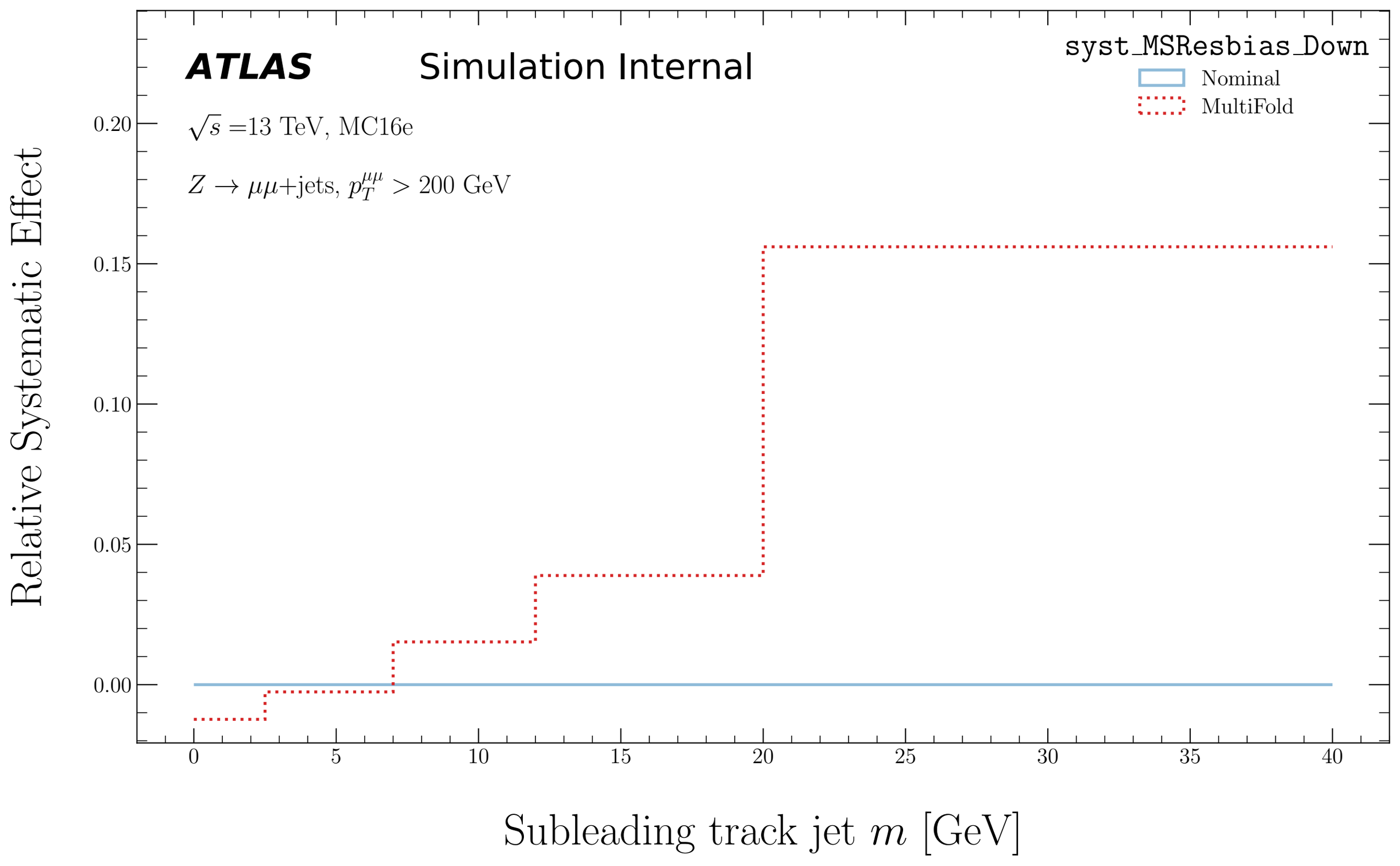

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet m [GeV]
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0
5
10
15
20
25
30
35
40

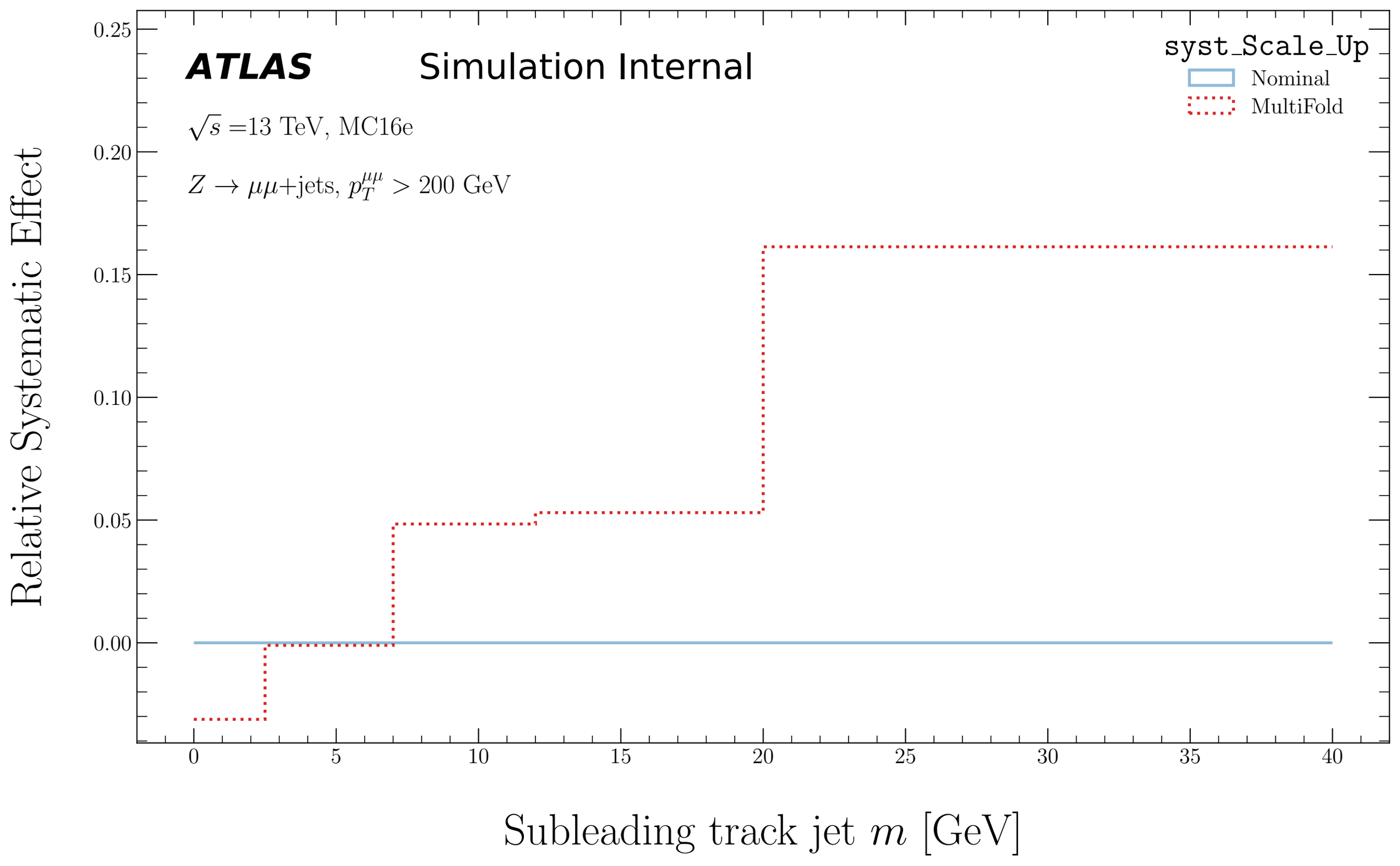

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
0
5
10
15
20
25
30
35
40
Subleading track jet m [GeV]

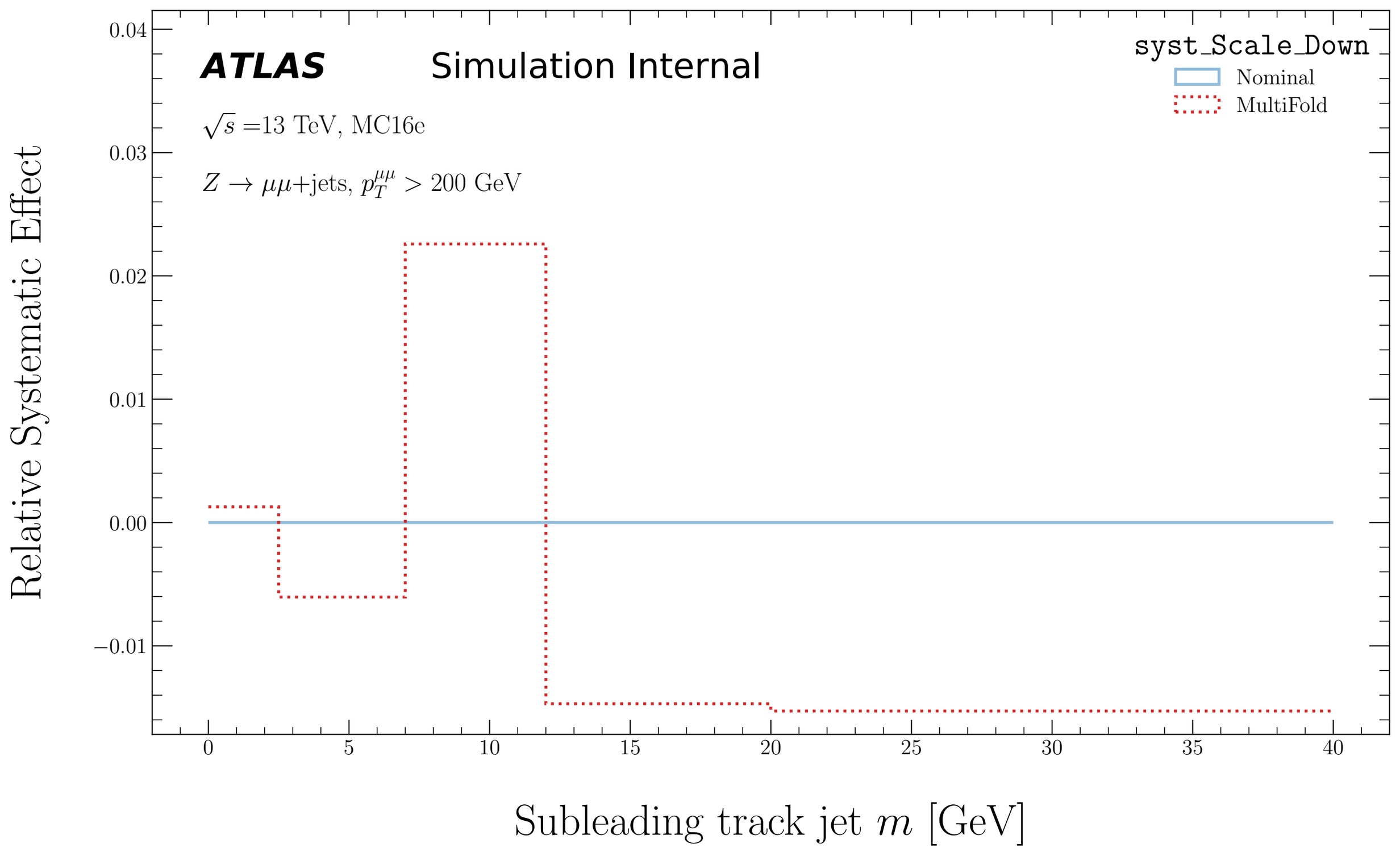

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet m [GeV]
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0
5
10
15
20
25
30
35
40

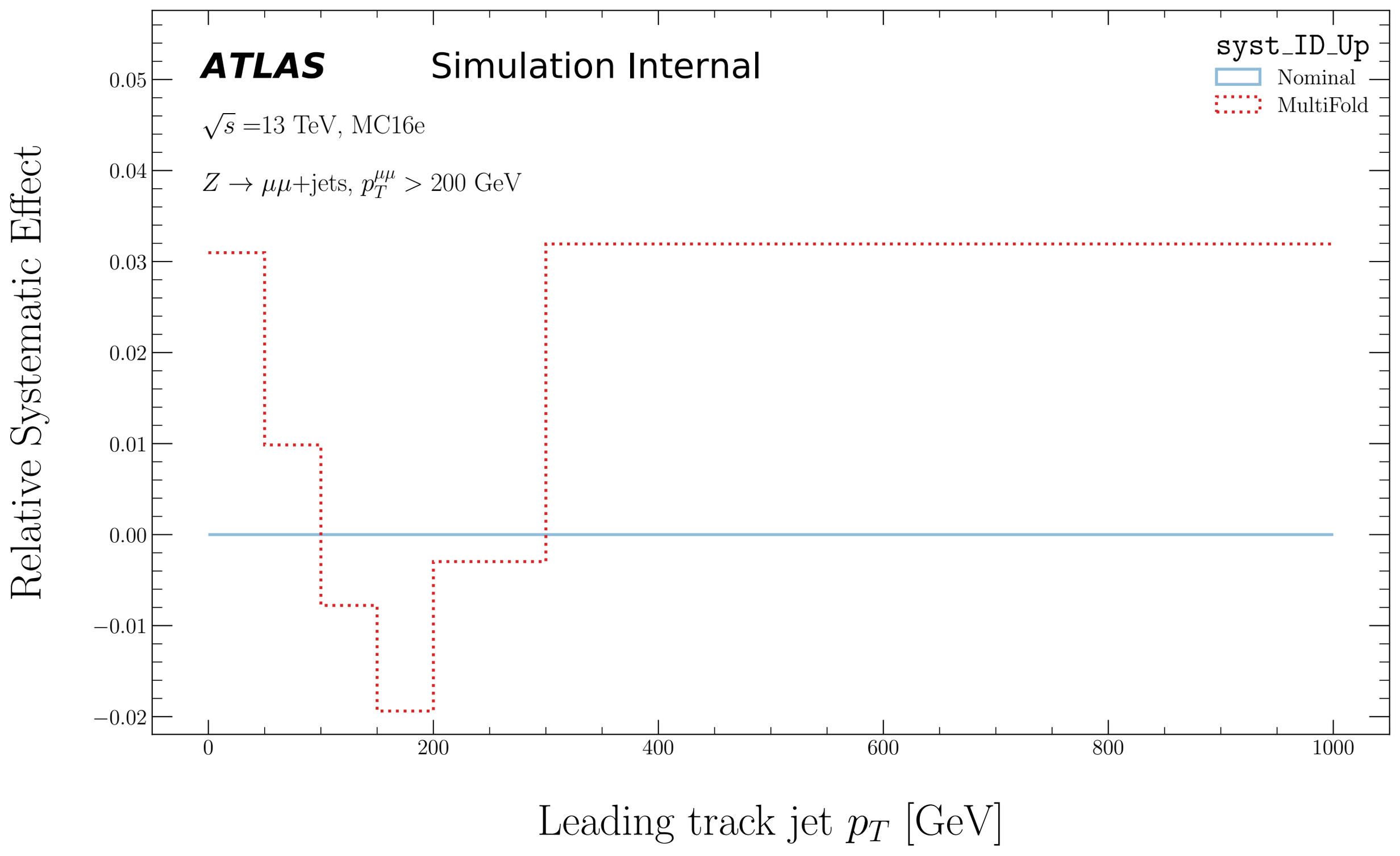

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
5
10
15
20
25
30
35
40
Subleading track jet m [GeV]

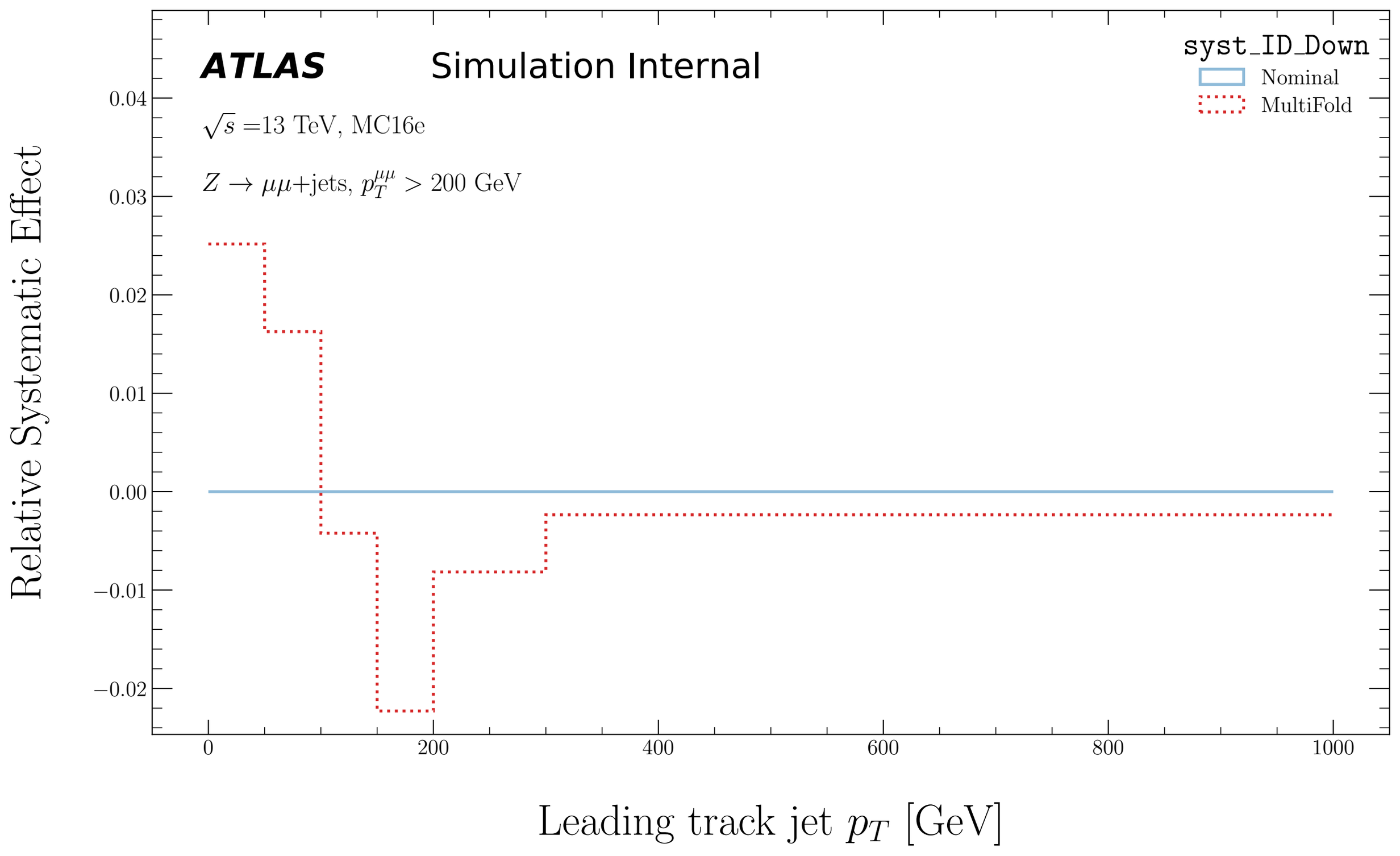

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet m [GeV]
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
5
10
15
20
25
30
35
40

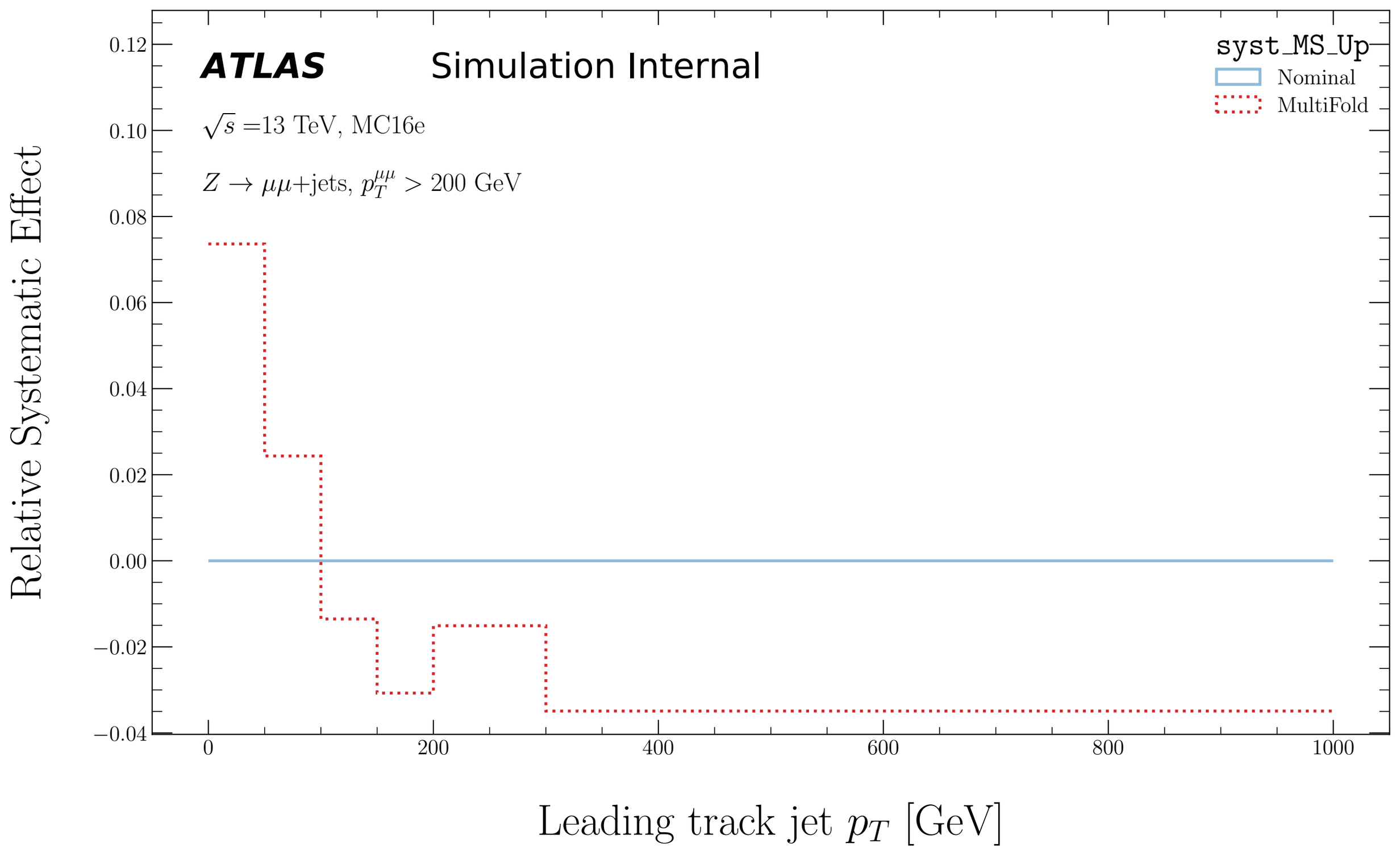

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25
30
35
40
Subleading track jet m [GeV]

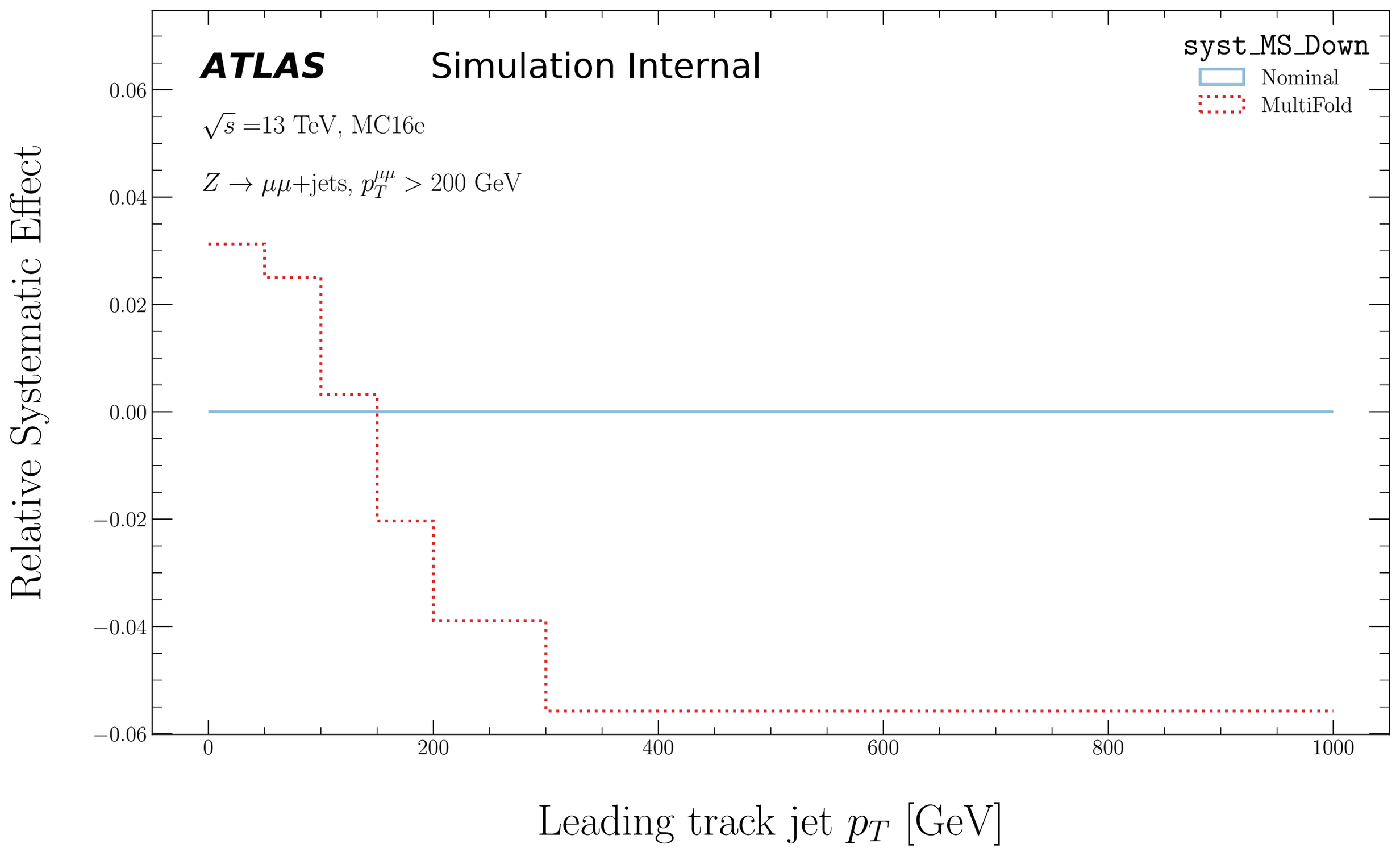

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.25
0.20
0.15
0.10
0.05
0.00
0
5
10
15
20
25
30
35
40
Subleading track jet m [GeV]

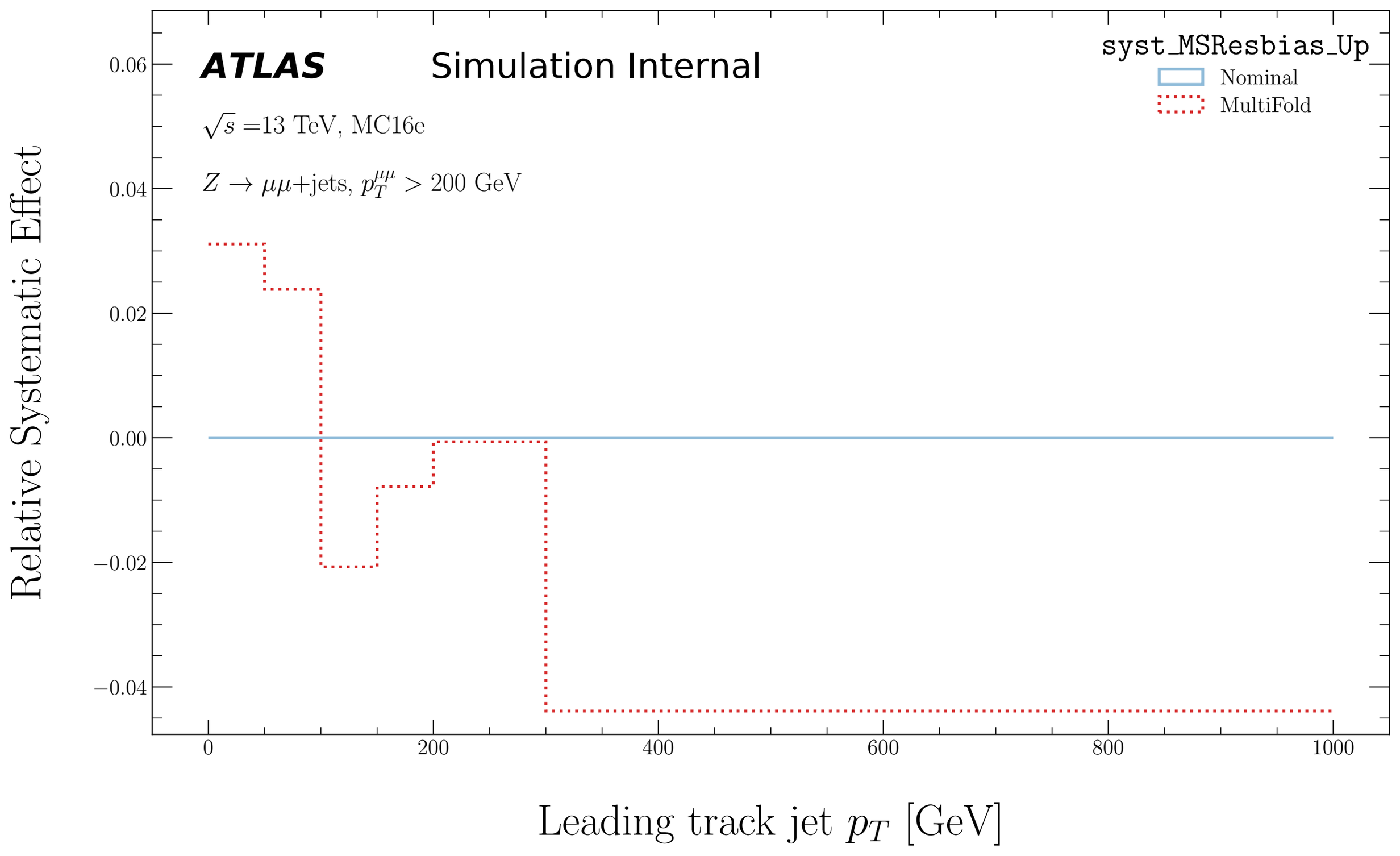

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet m [GeV]
0.04
0.03
0.02
0.01
0.00
−0.01
0
5
10
15
20
25
30
35
40

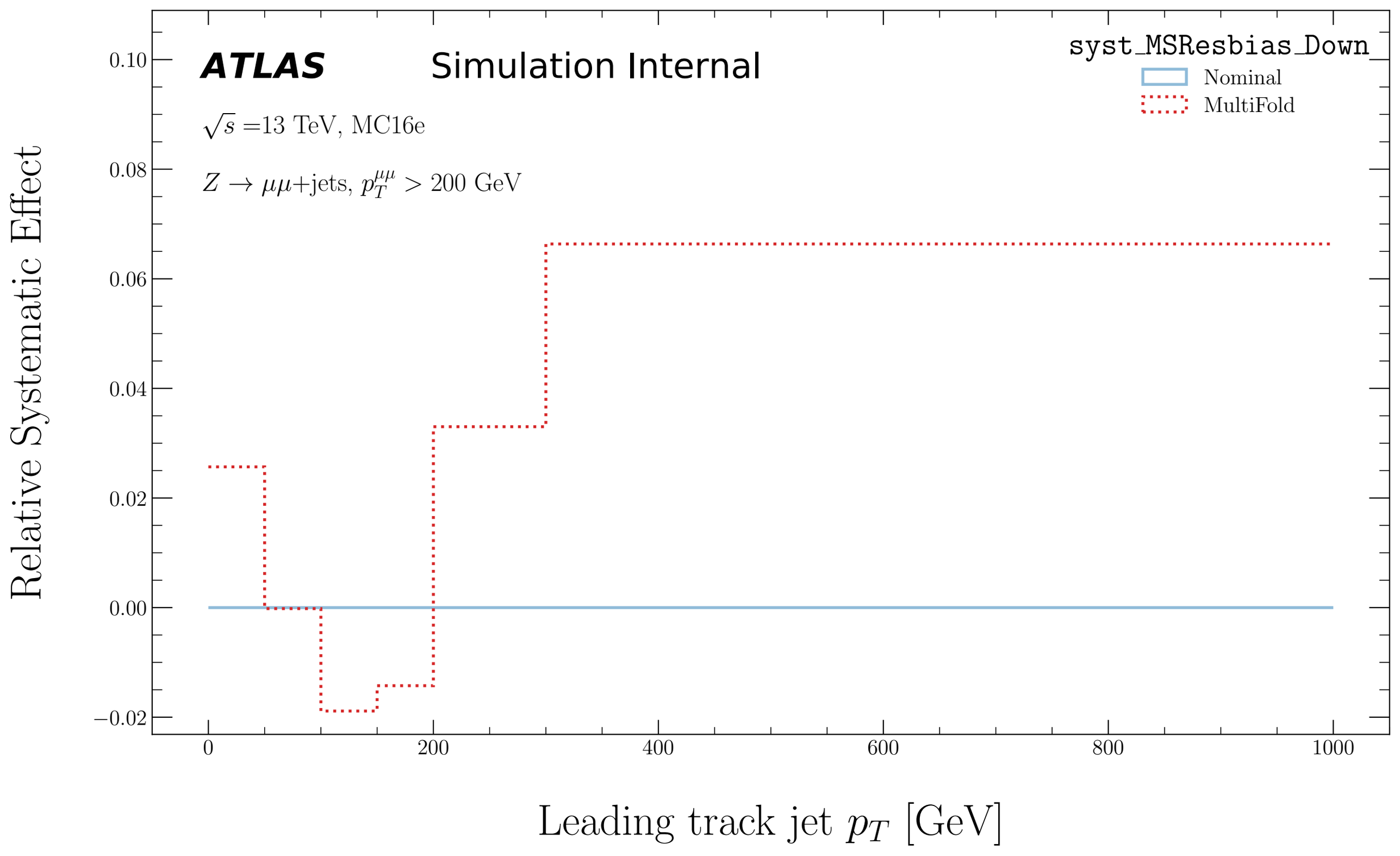

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
0
200
400
600
800
1000
Leading track jet p_T [GeV]

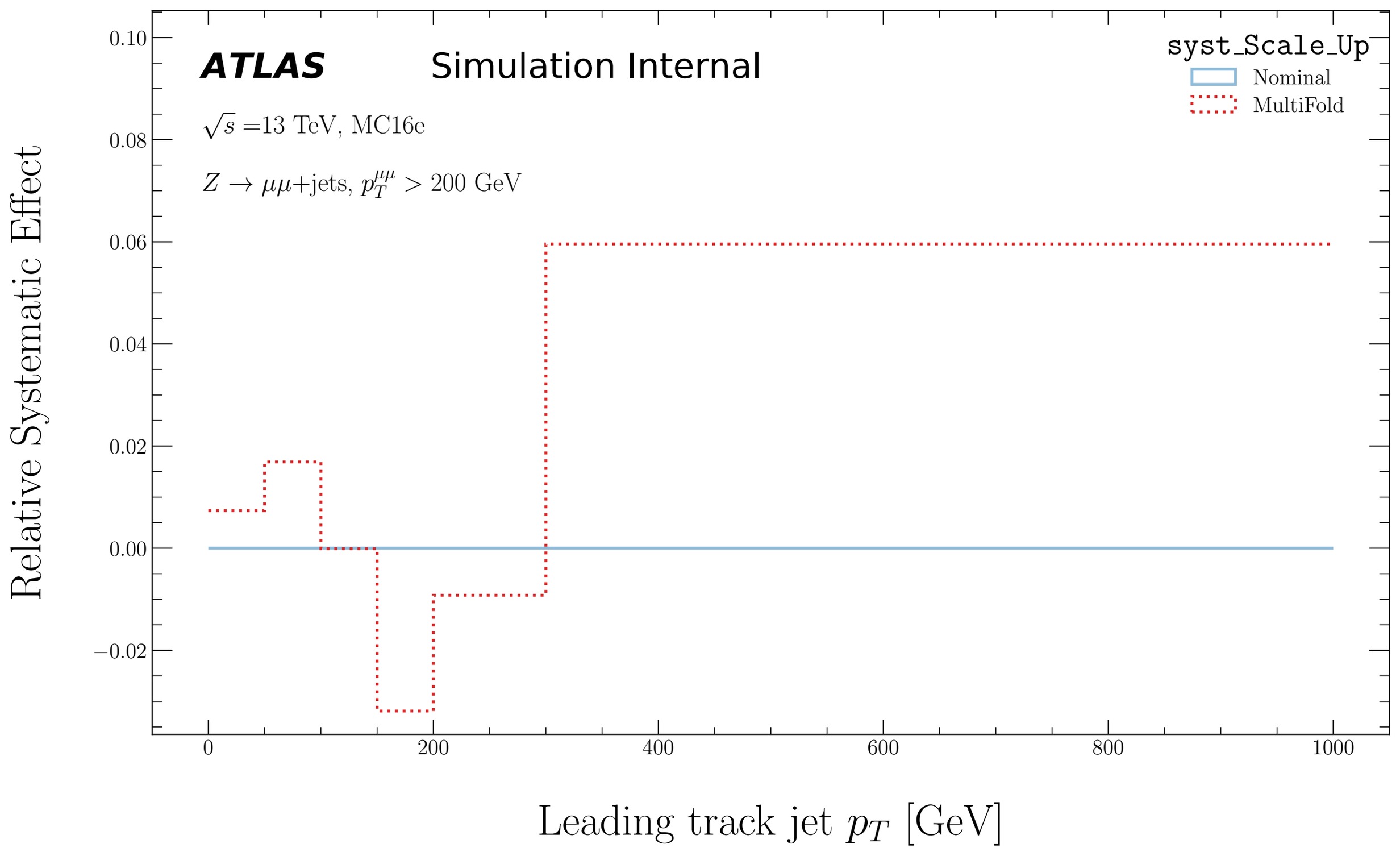

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
0
200
400
600
800
1000
Leading track jet p_T [GeV]

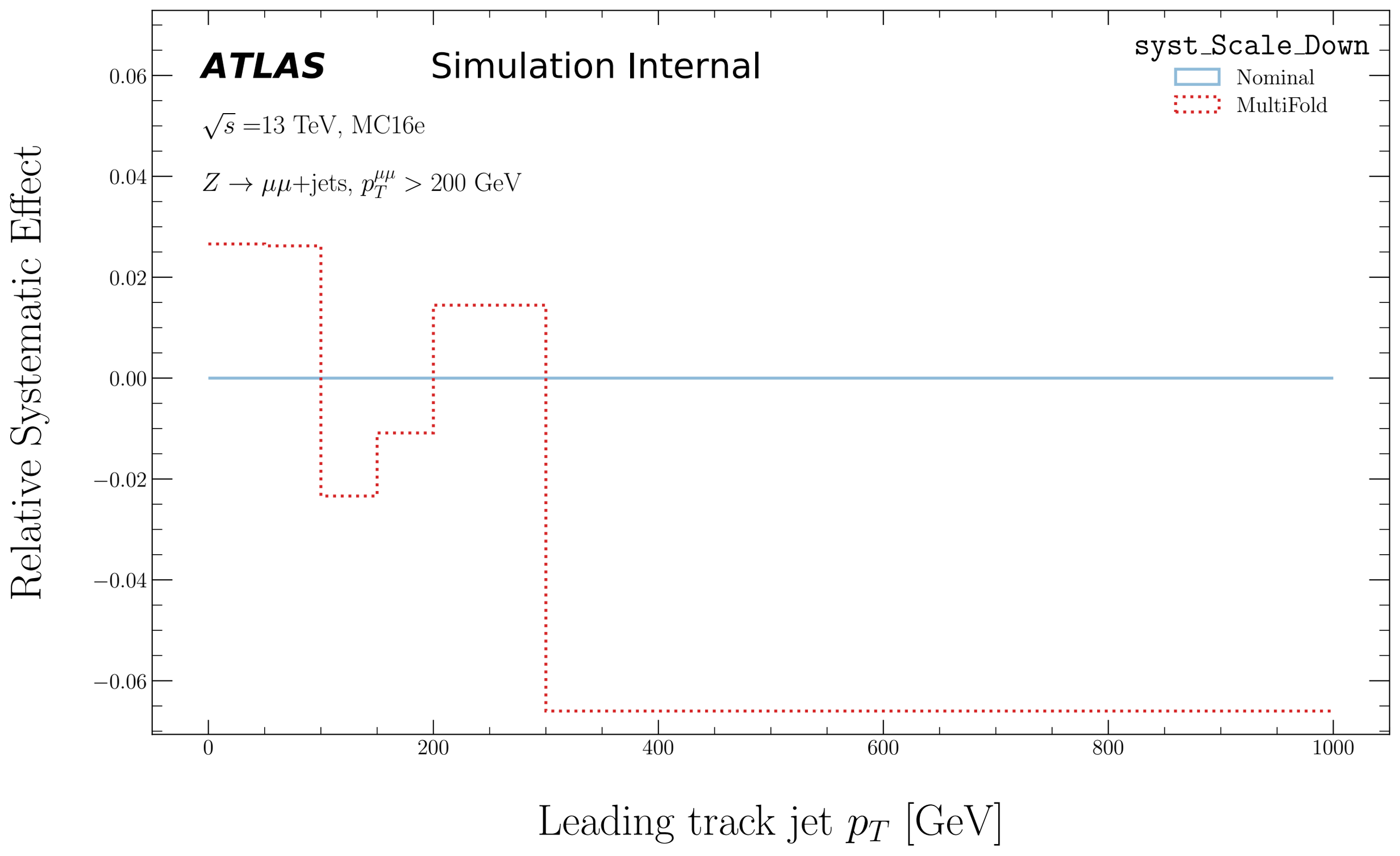

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet p_T [GeV]
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
0
200
400
600
800
1000

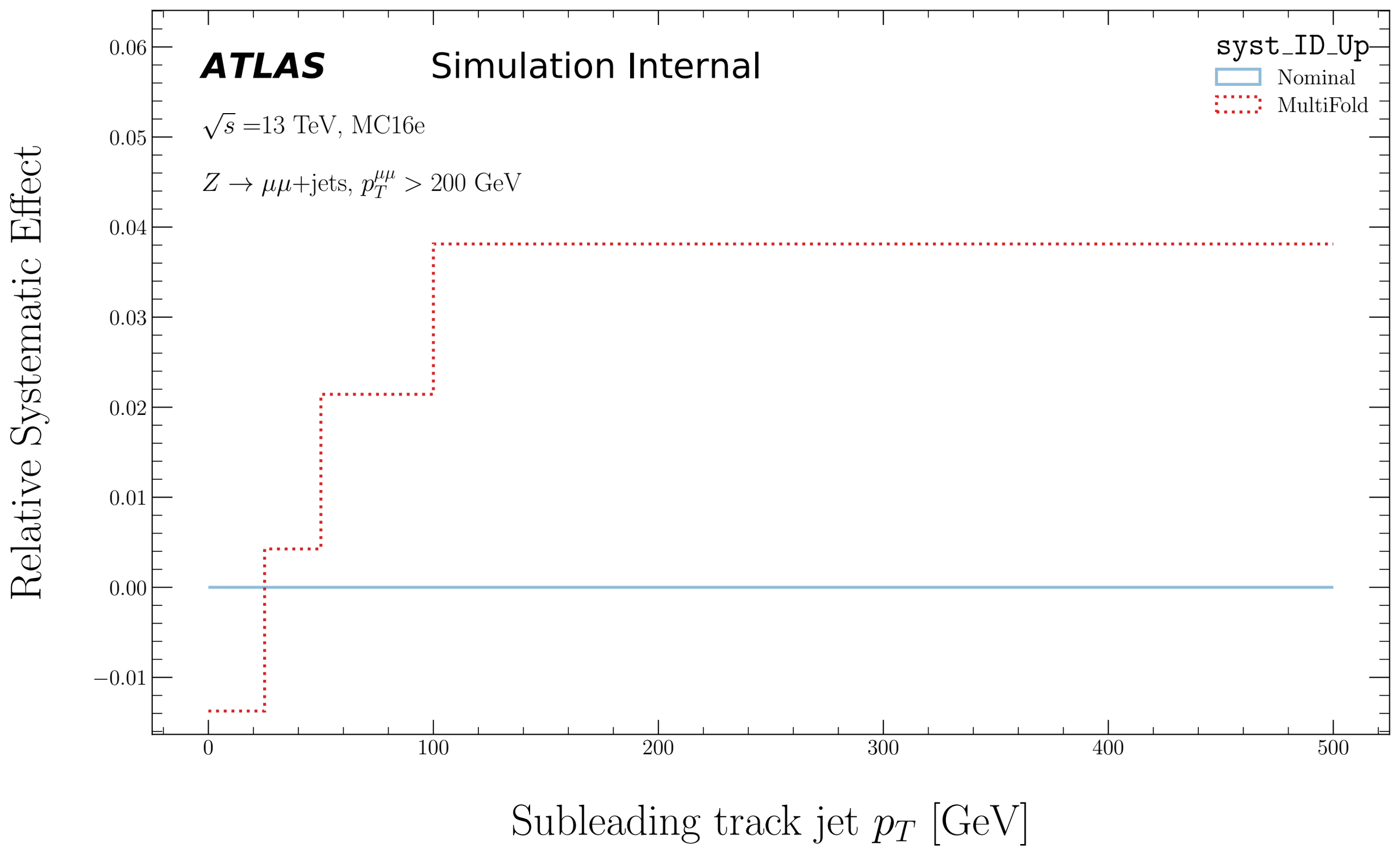

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0
200
400
600
800
1000
Leading track jet p_T [GeV]

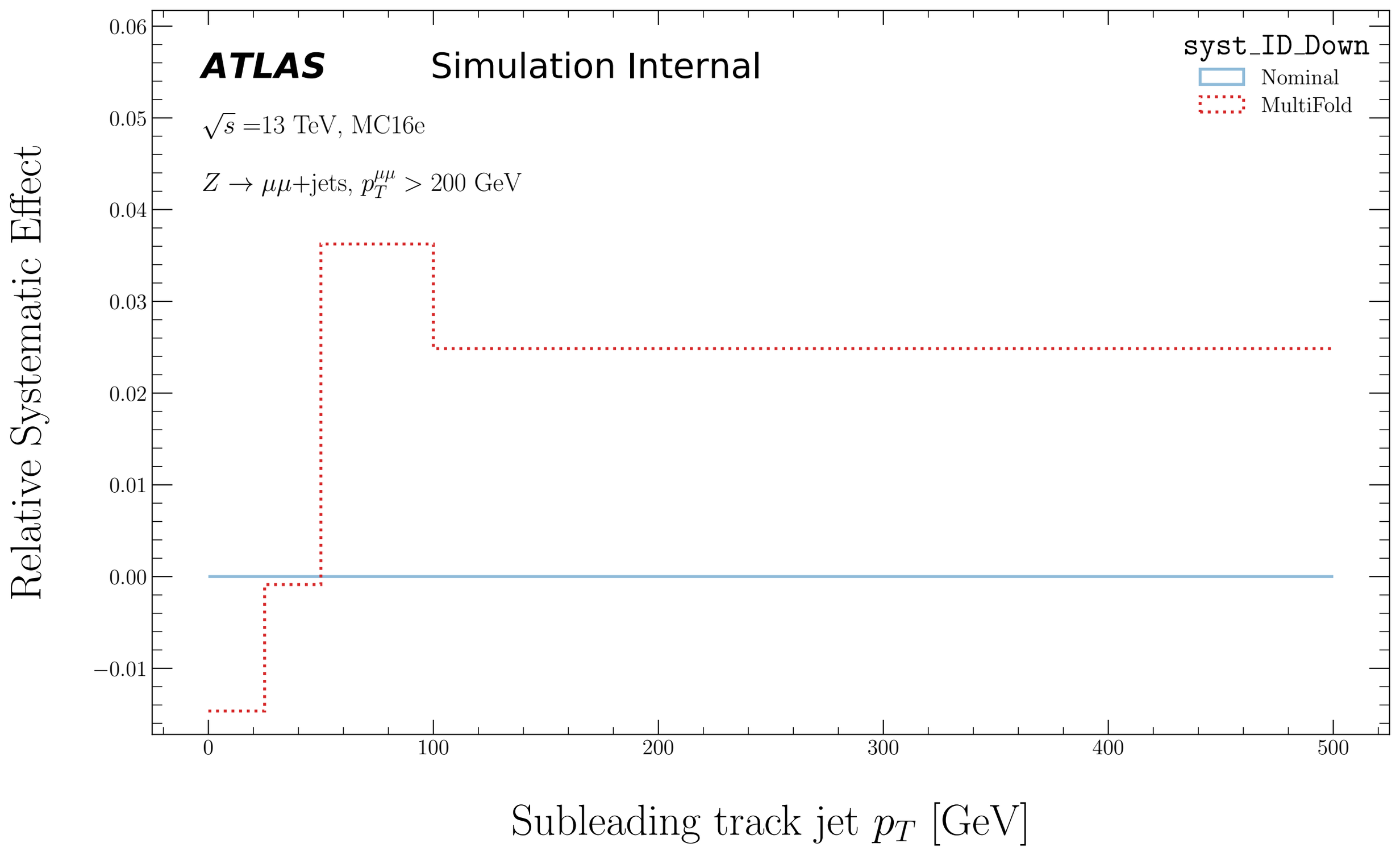

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
0
200
400
600
800
1000
Leading track jet p_T [GeV]

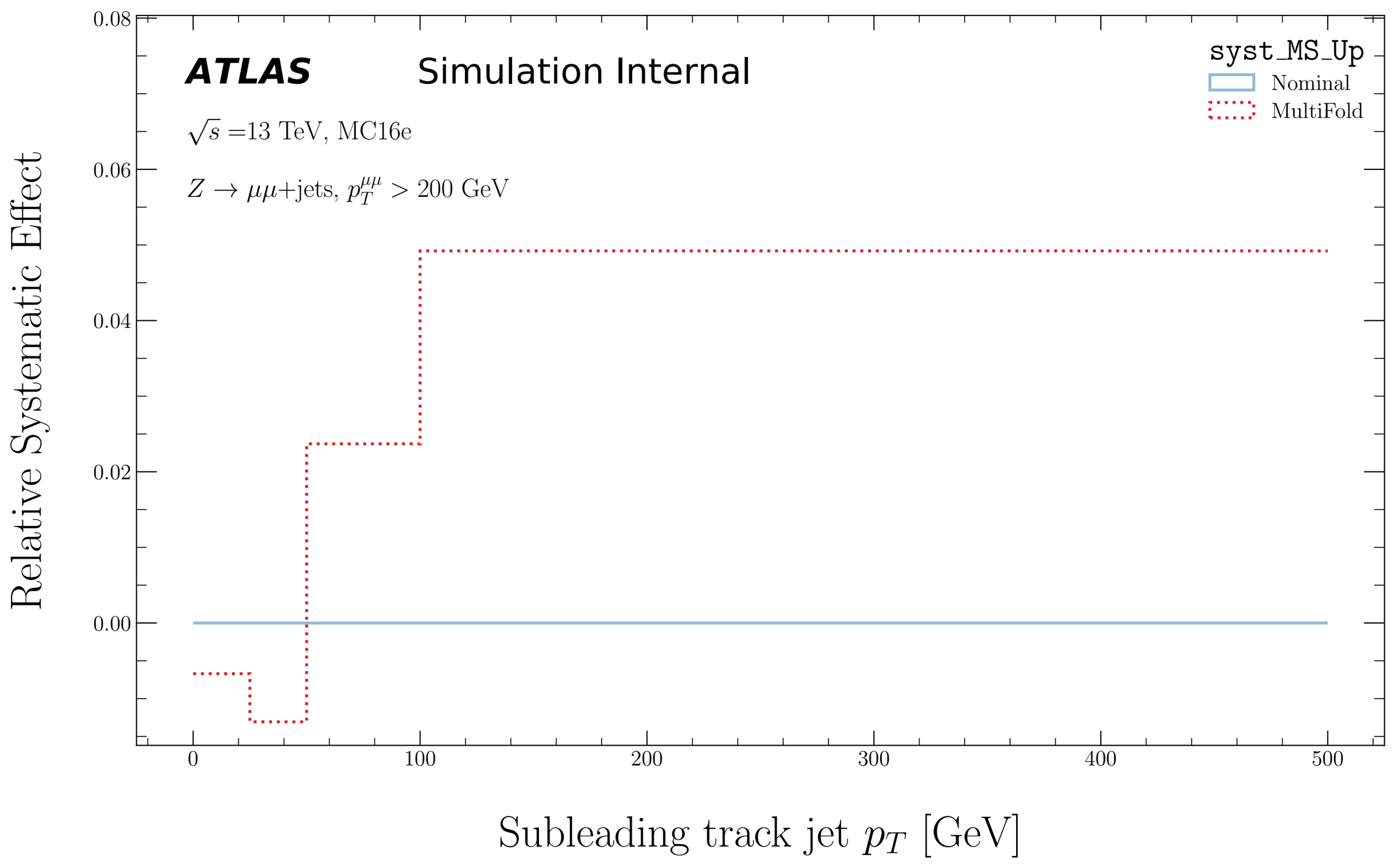

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
200
400
600
800
1000
Leading track jet p_T [GeV]

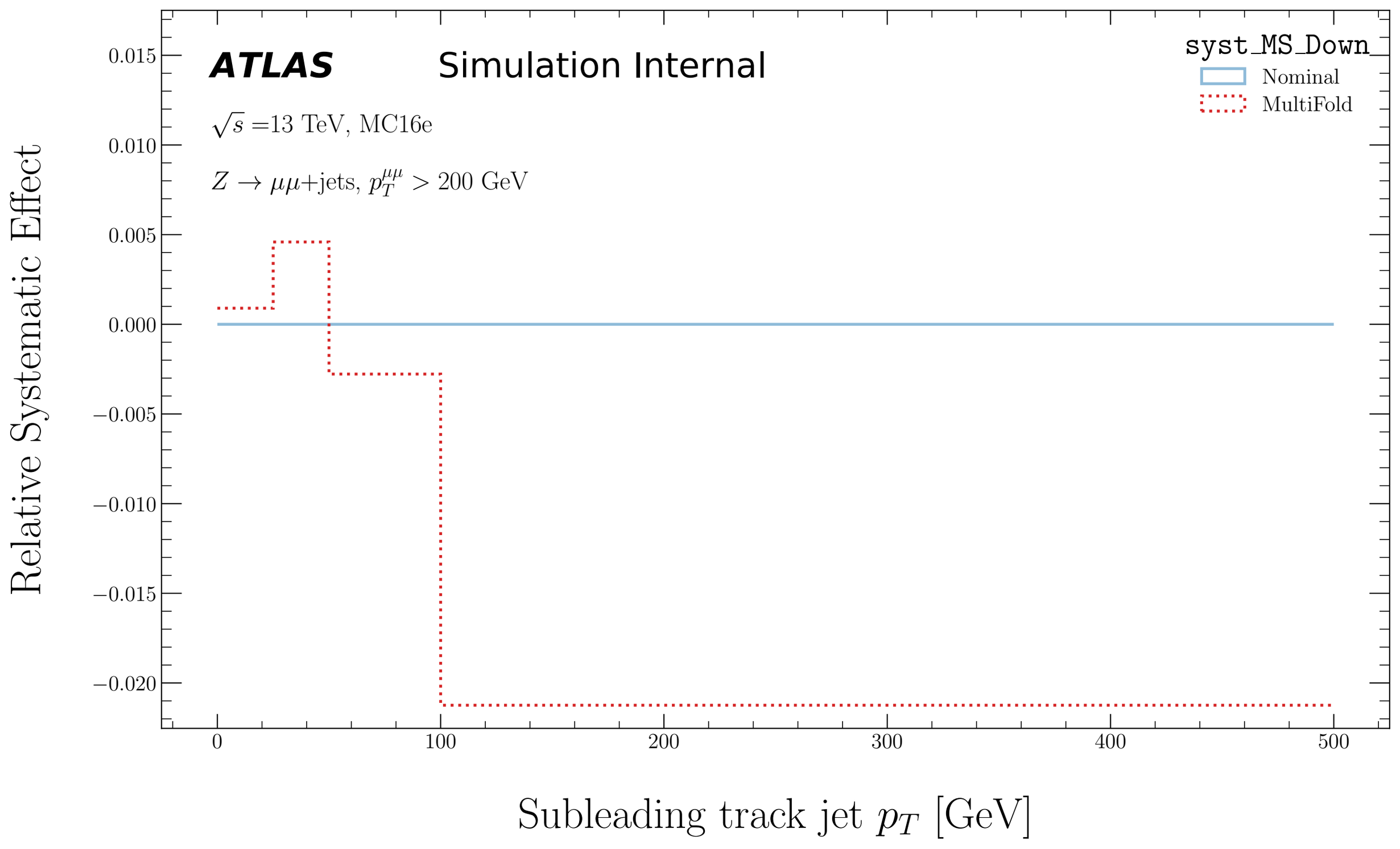

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet p_T [GeV]
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
0
200
400
600
800
1000

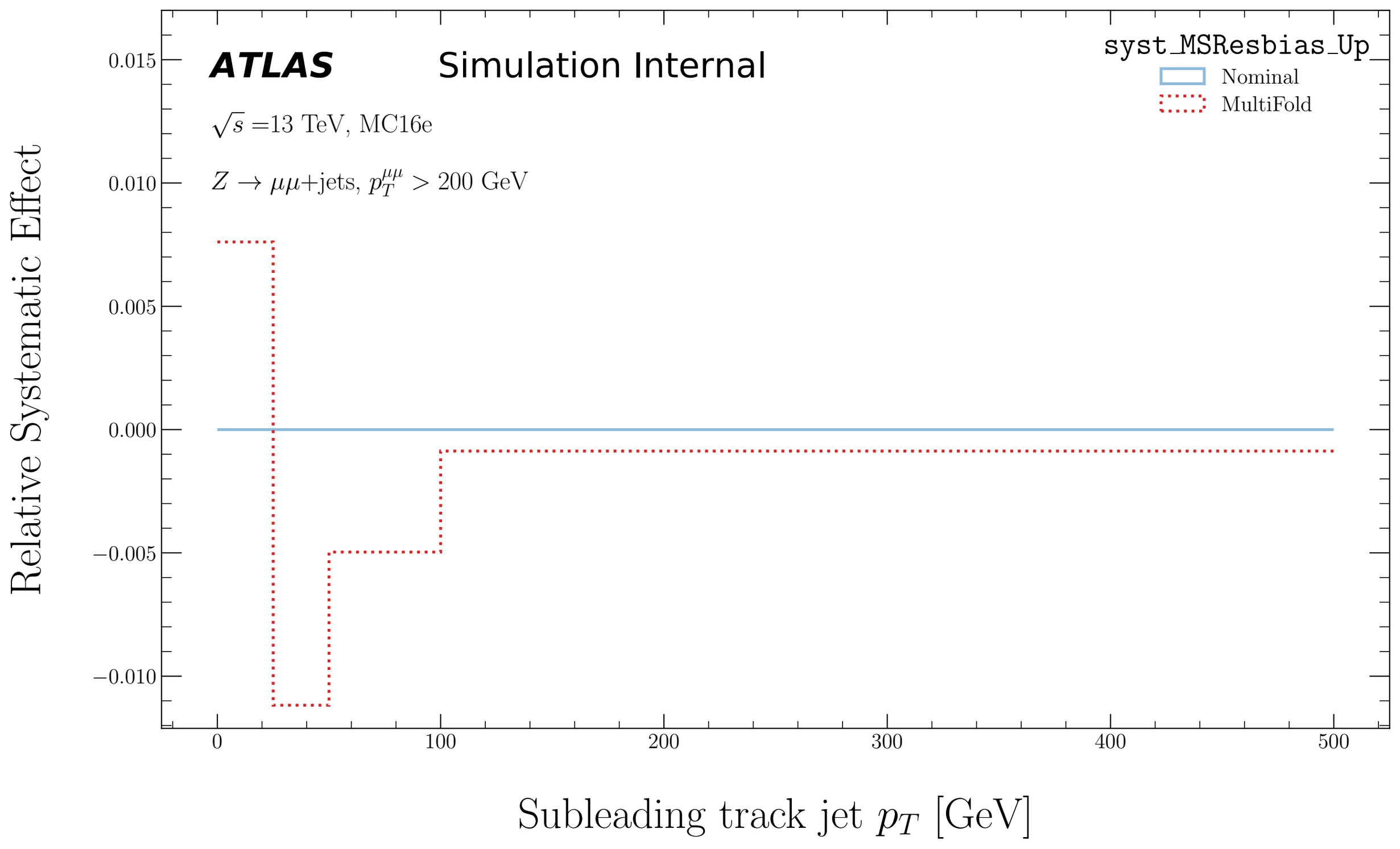

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0
200
400
600
800
1000
Leading track jet p_T [GeV]

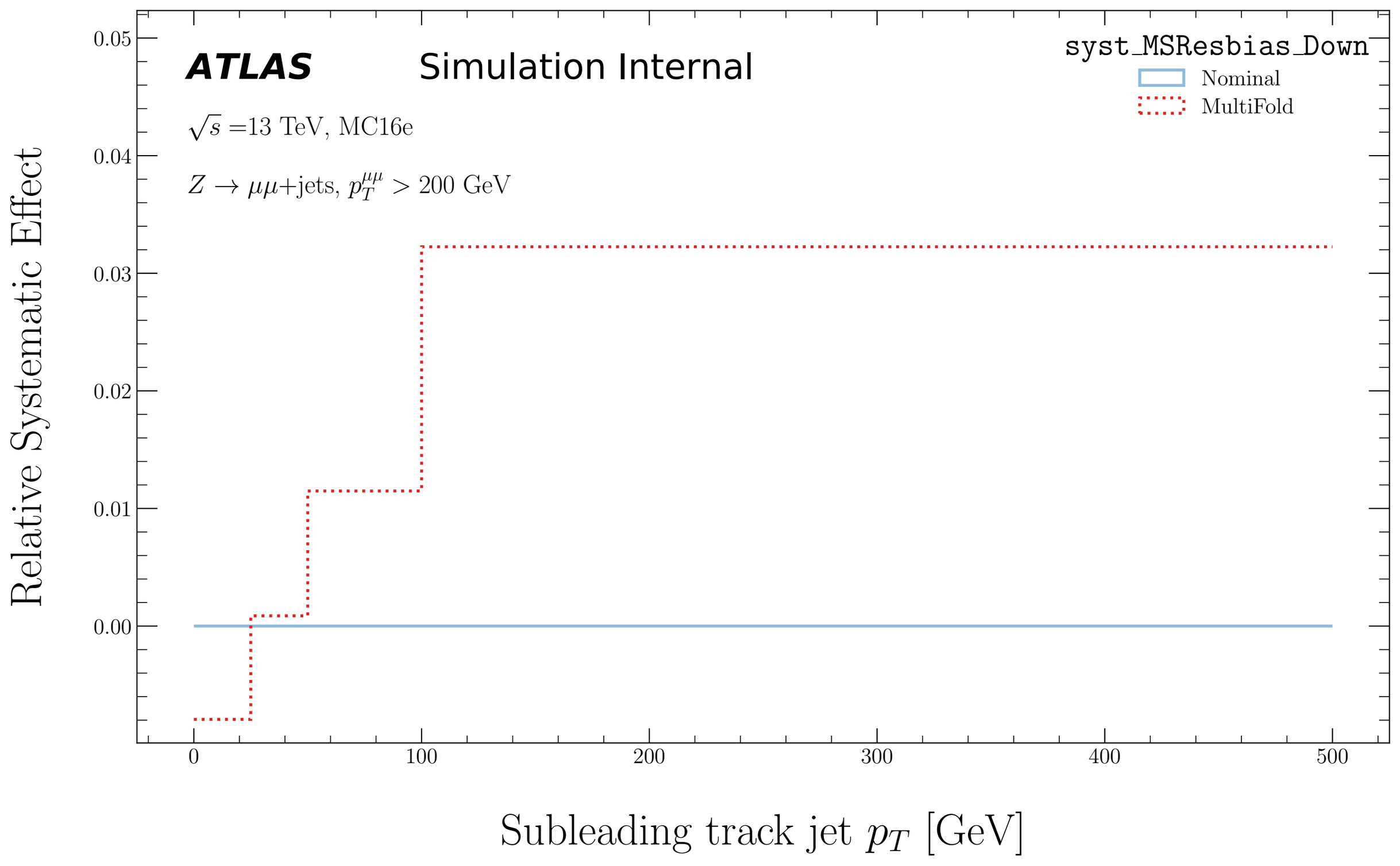

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0
100
200
300
400
500
Subleading track jet p_T [GeV]

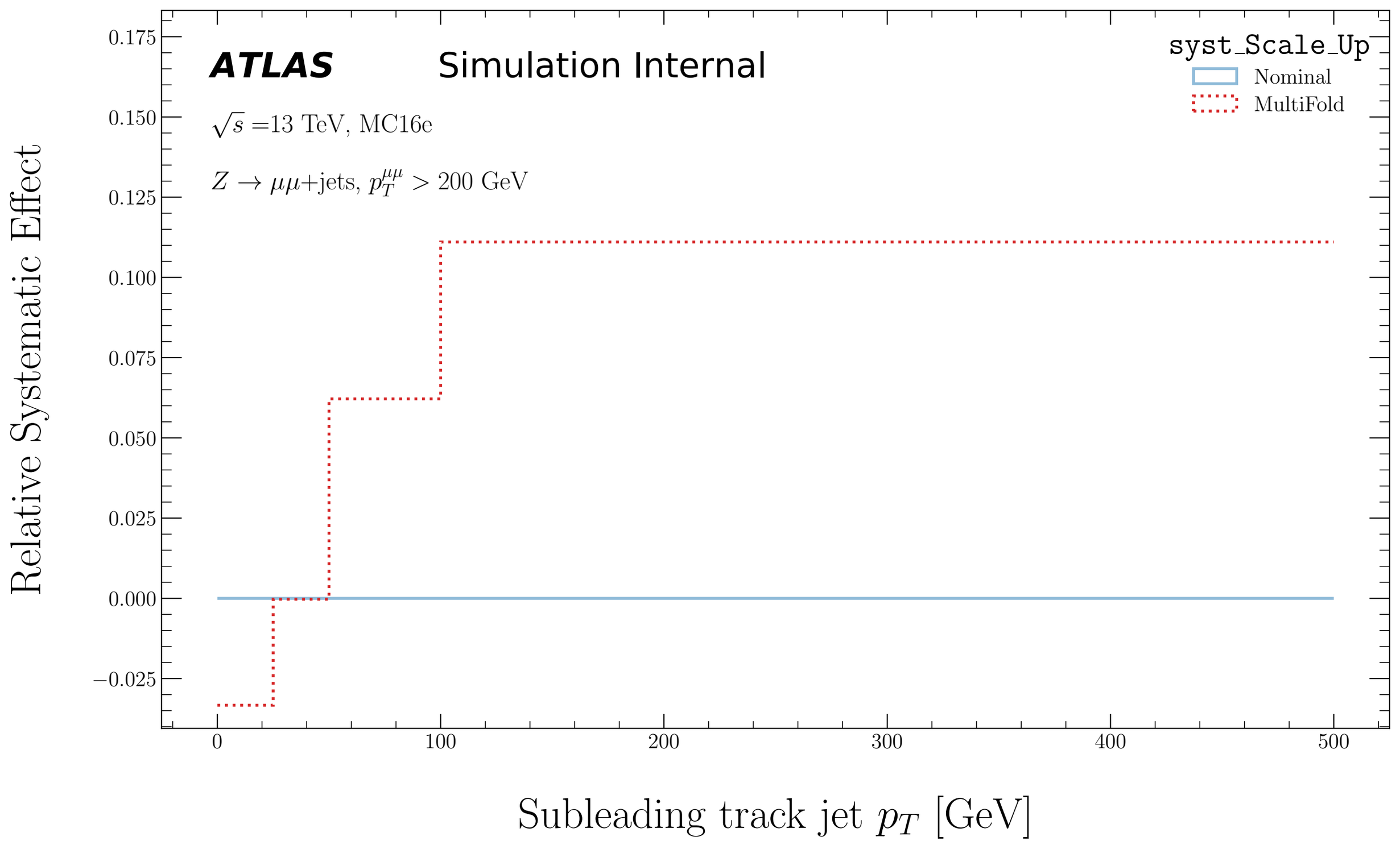

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet p_T [GeV]
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0
100
200
300
400
500

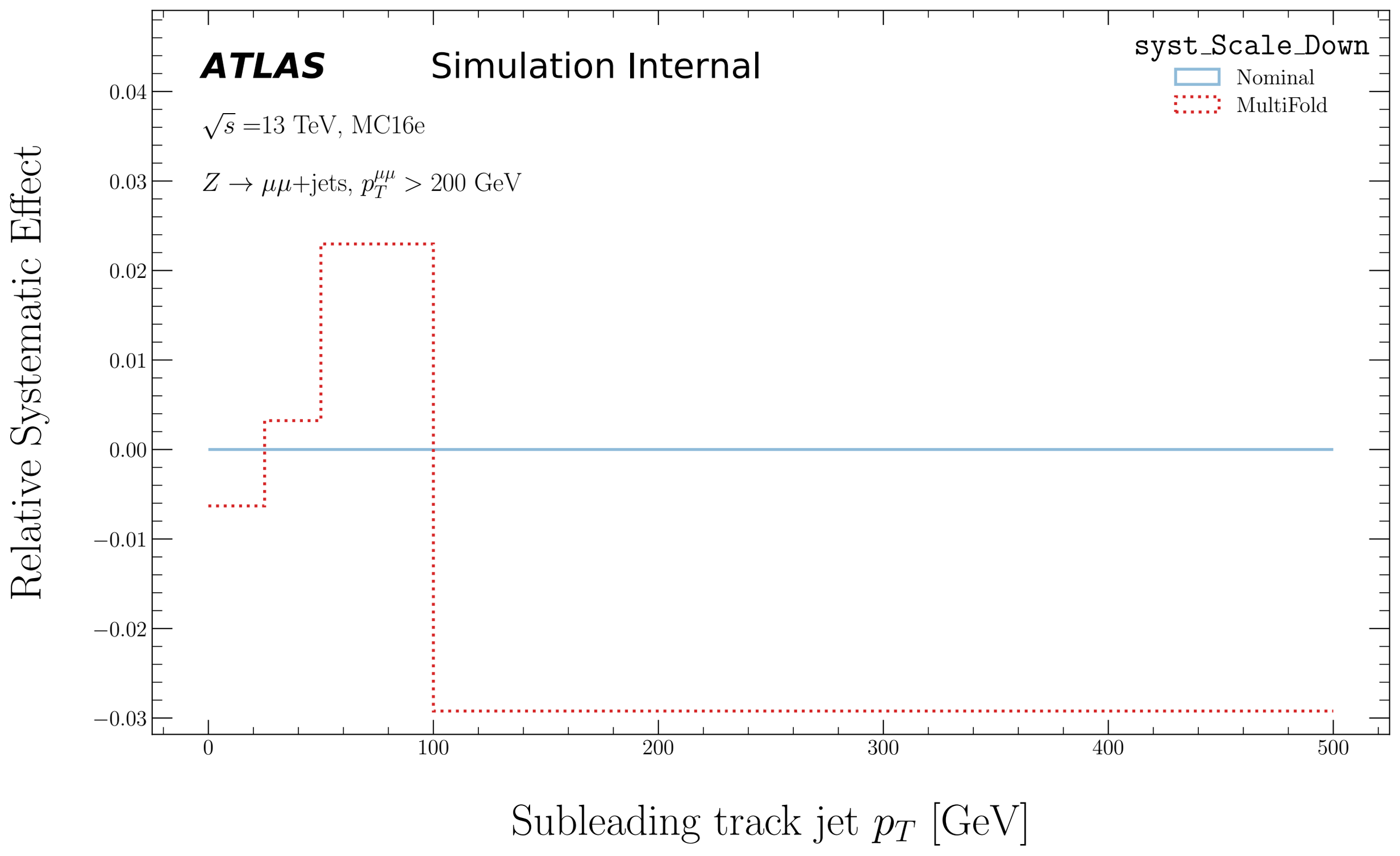

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
100
200
300
400
500
Subleading track jet p_T [GeV]

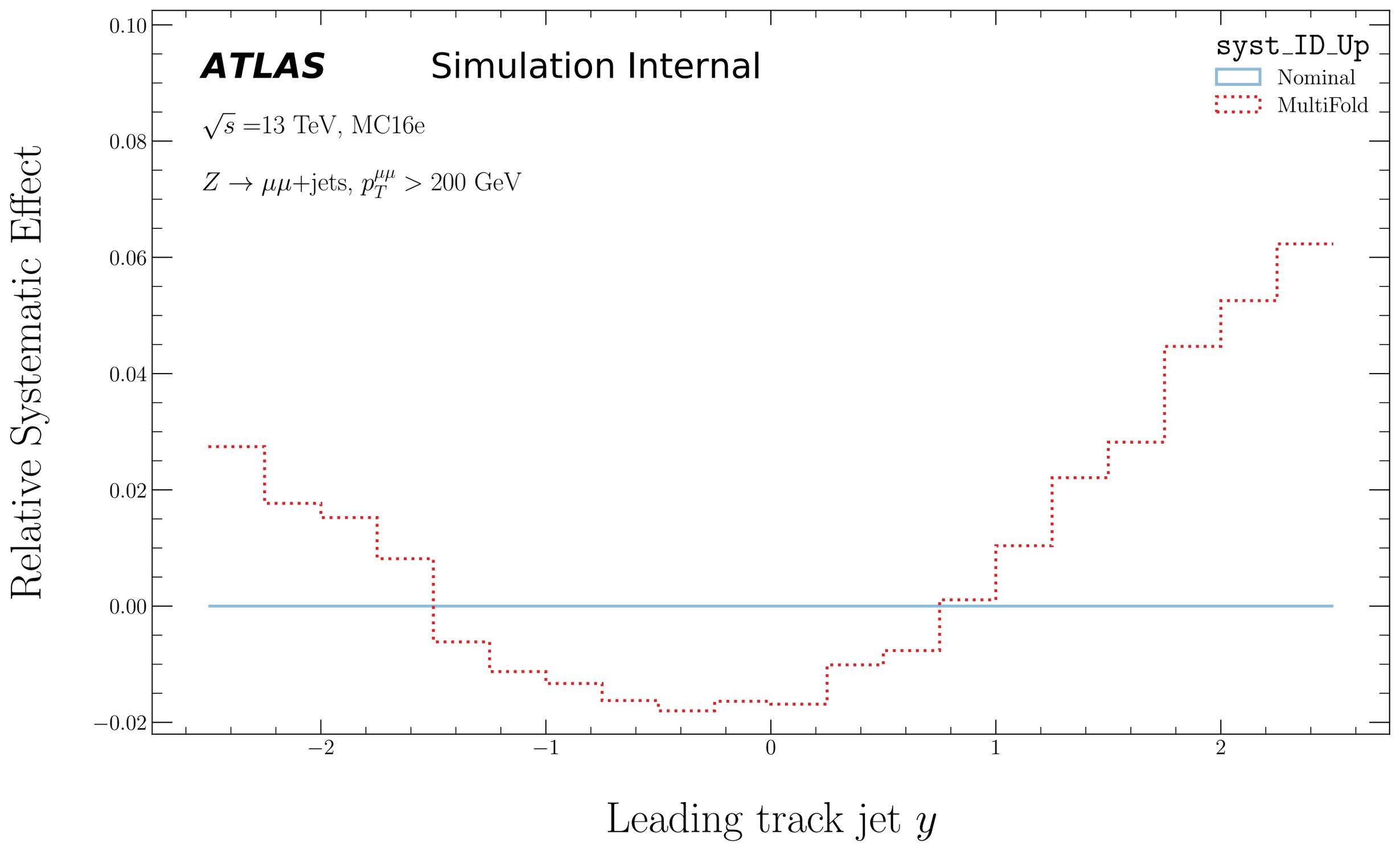

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet p_T [GeV]
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
0
100
200
300
400
500

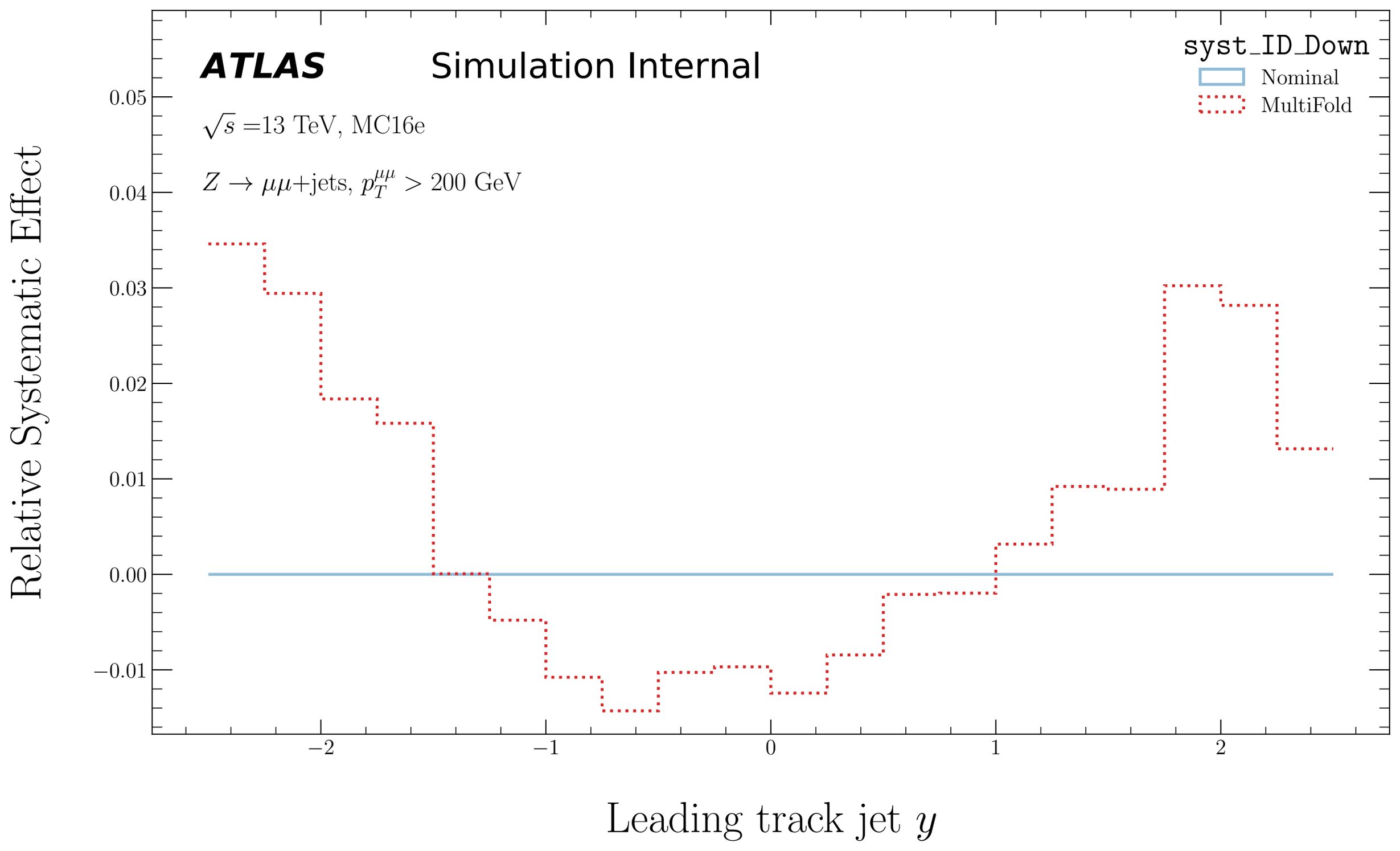

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.015
0.010
0.005
0.000
−0.005
−0.010
0
100
200
300
400
500
Subleading track jet p_T [GeV]

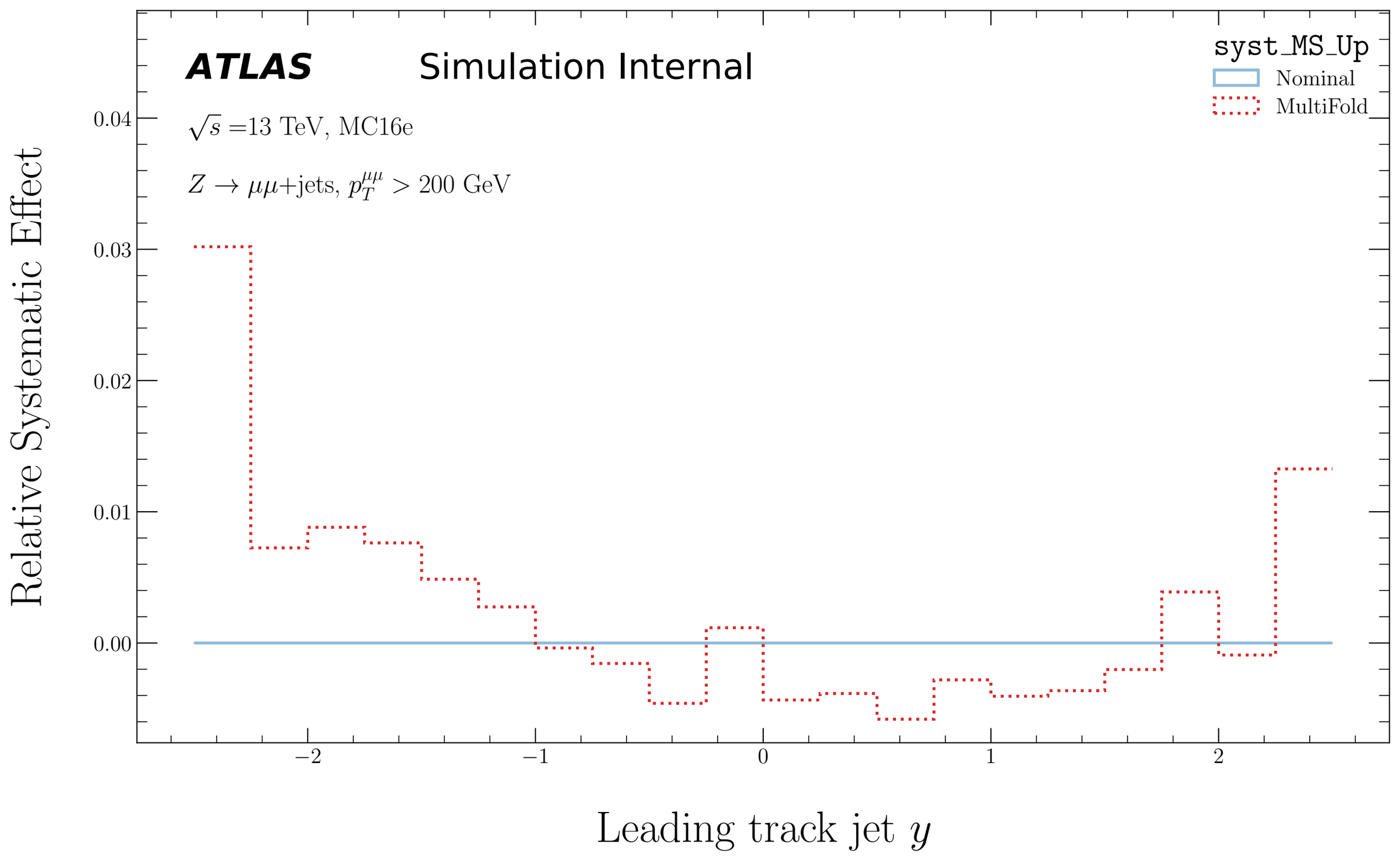

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
0
100
200
300
400
500
Subleading track jet p_T [GeV]

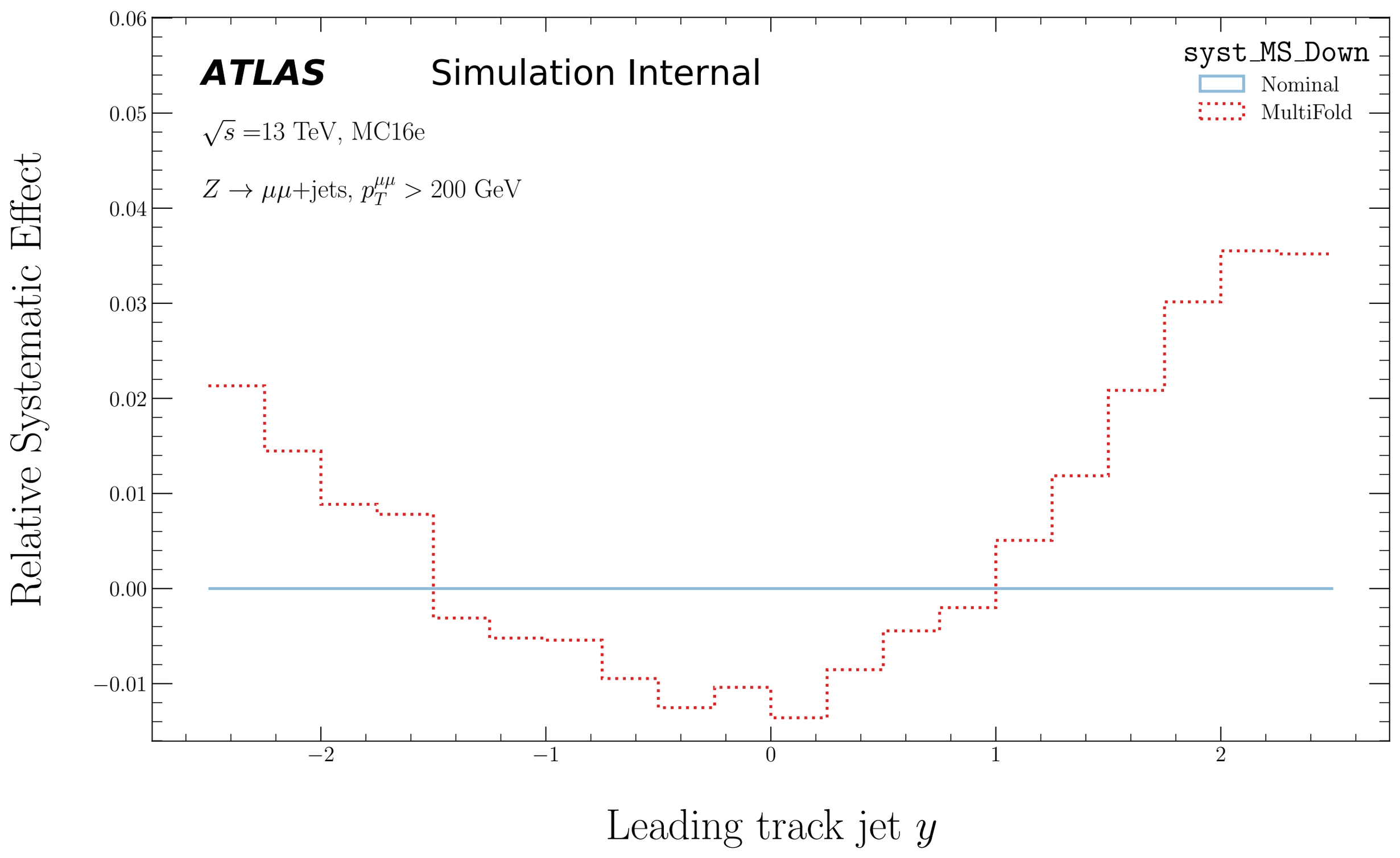

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
0
100
200
300
400
500
Subleading track jet p_T [GeV]

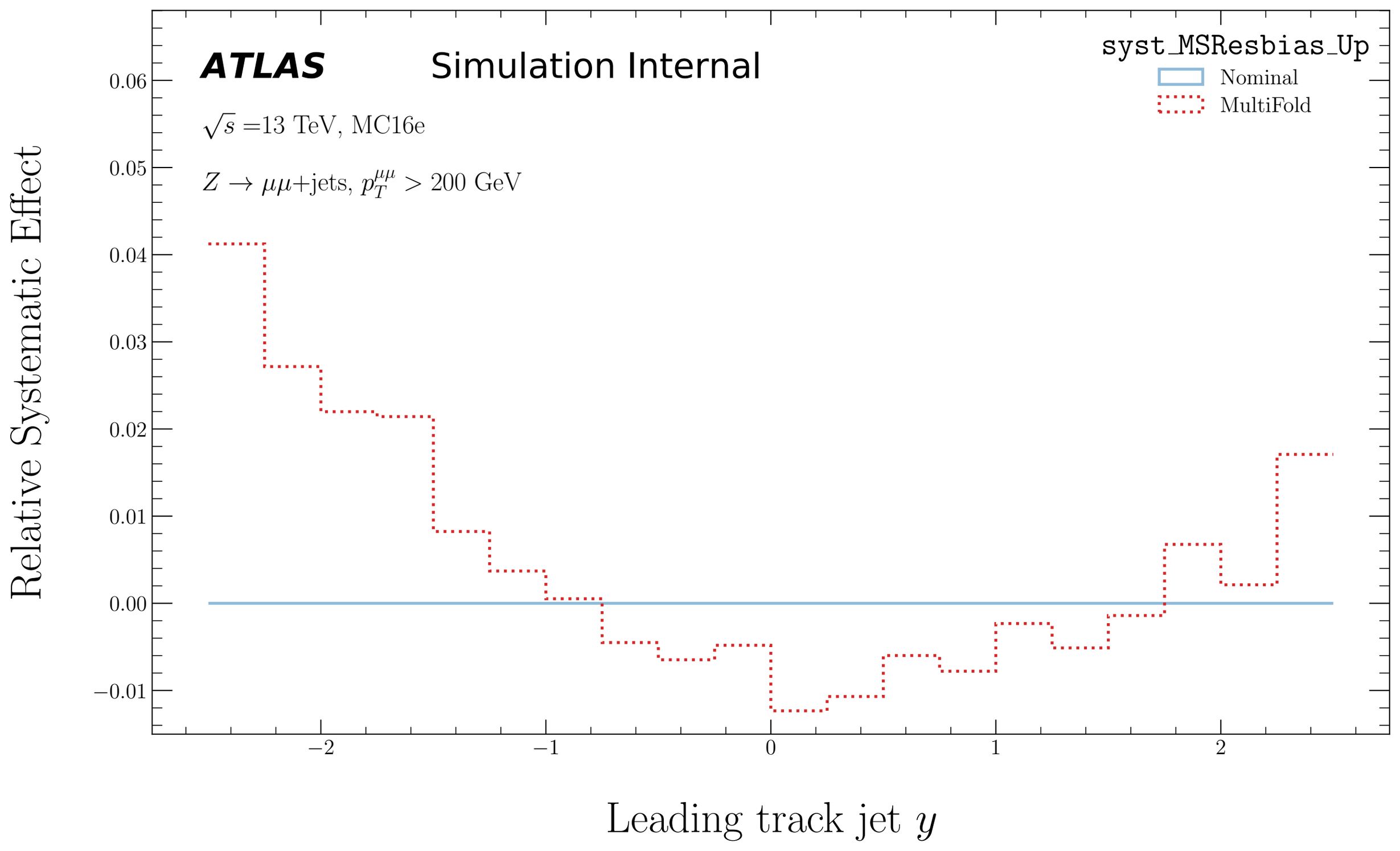

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
0
100
200
300
400
500
Subleading track jet p_T [GeV]

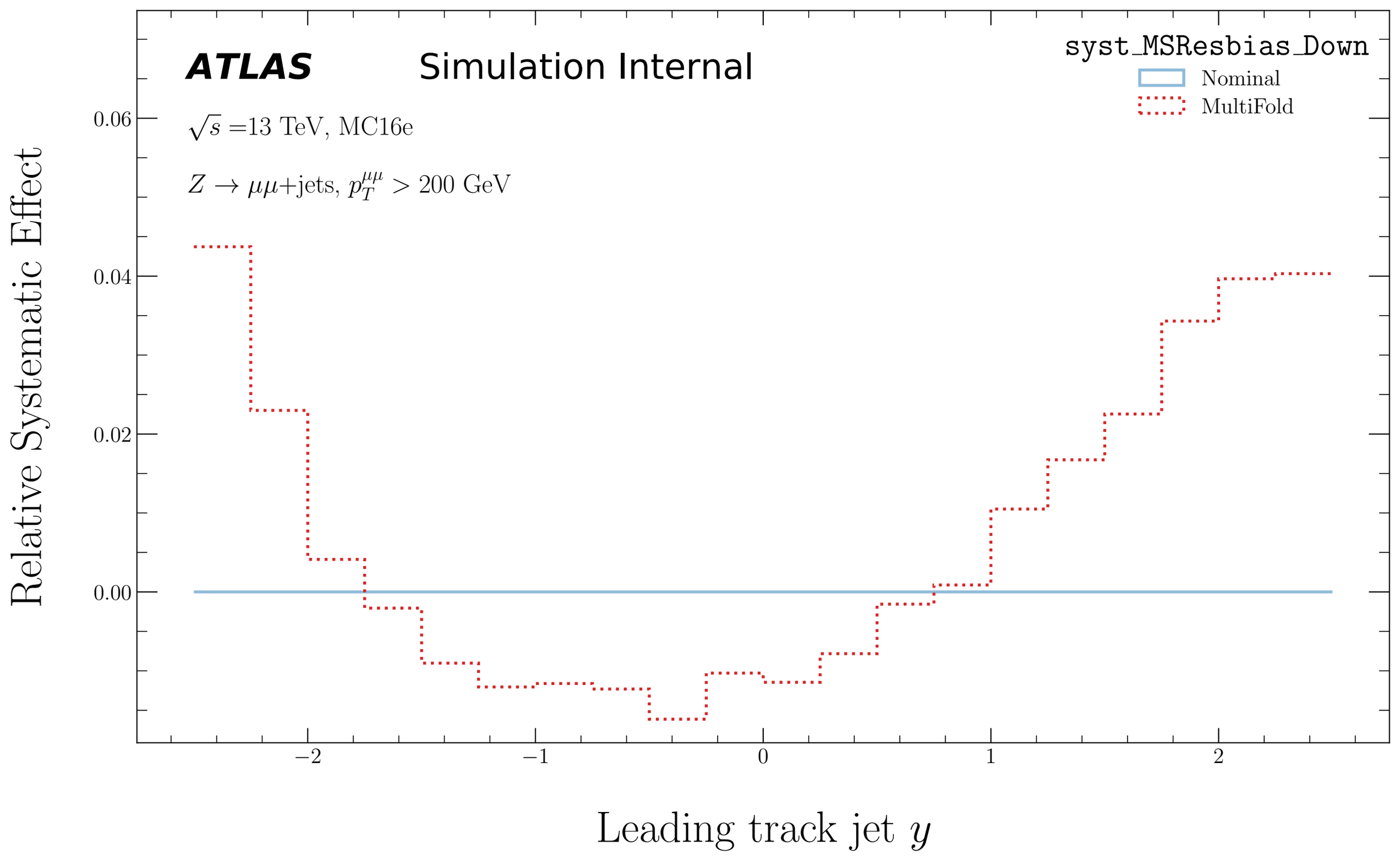

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet y
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2

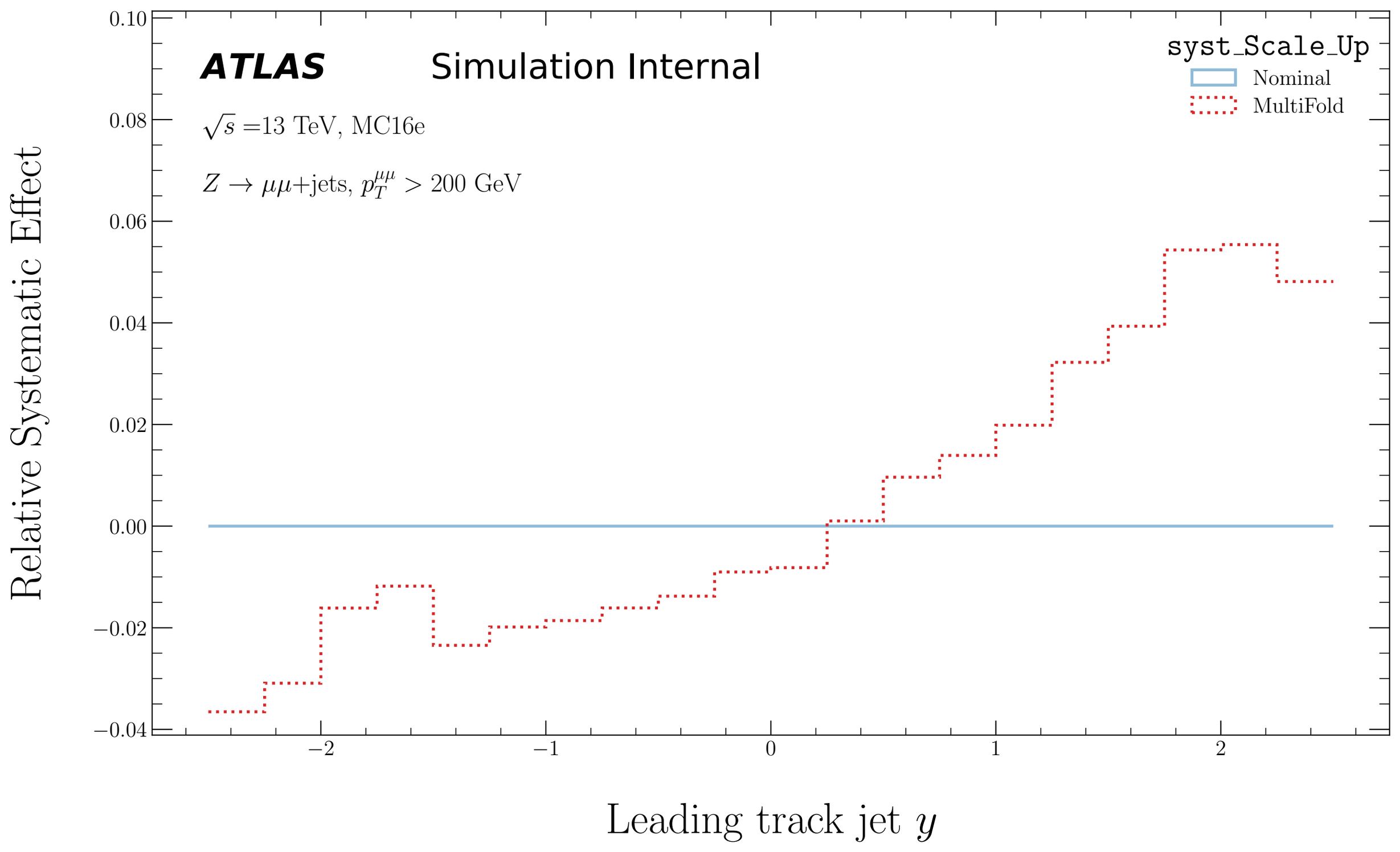

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2
Leading track jet y

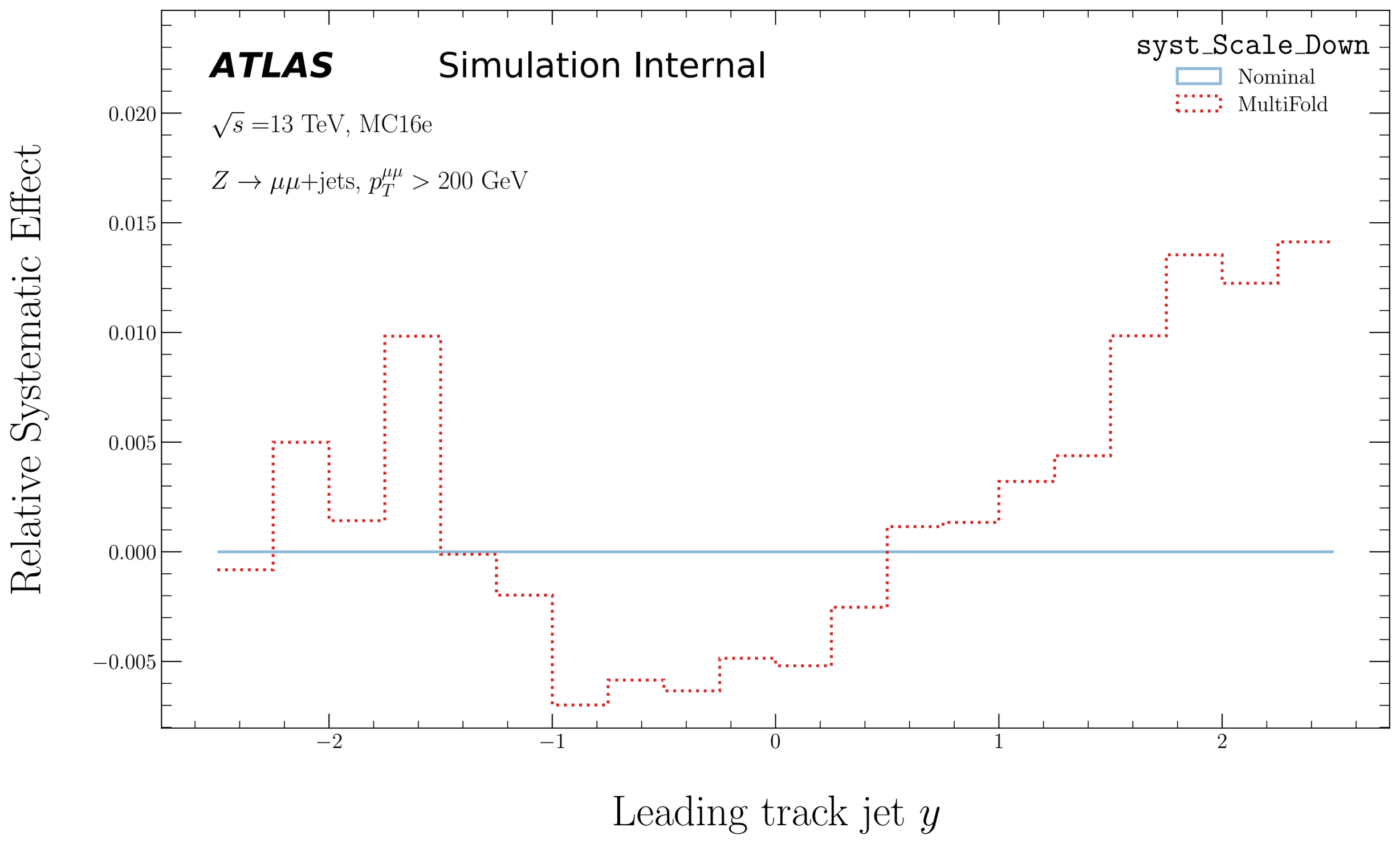

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−2
−1
0
1
2
Leading track jet y

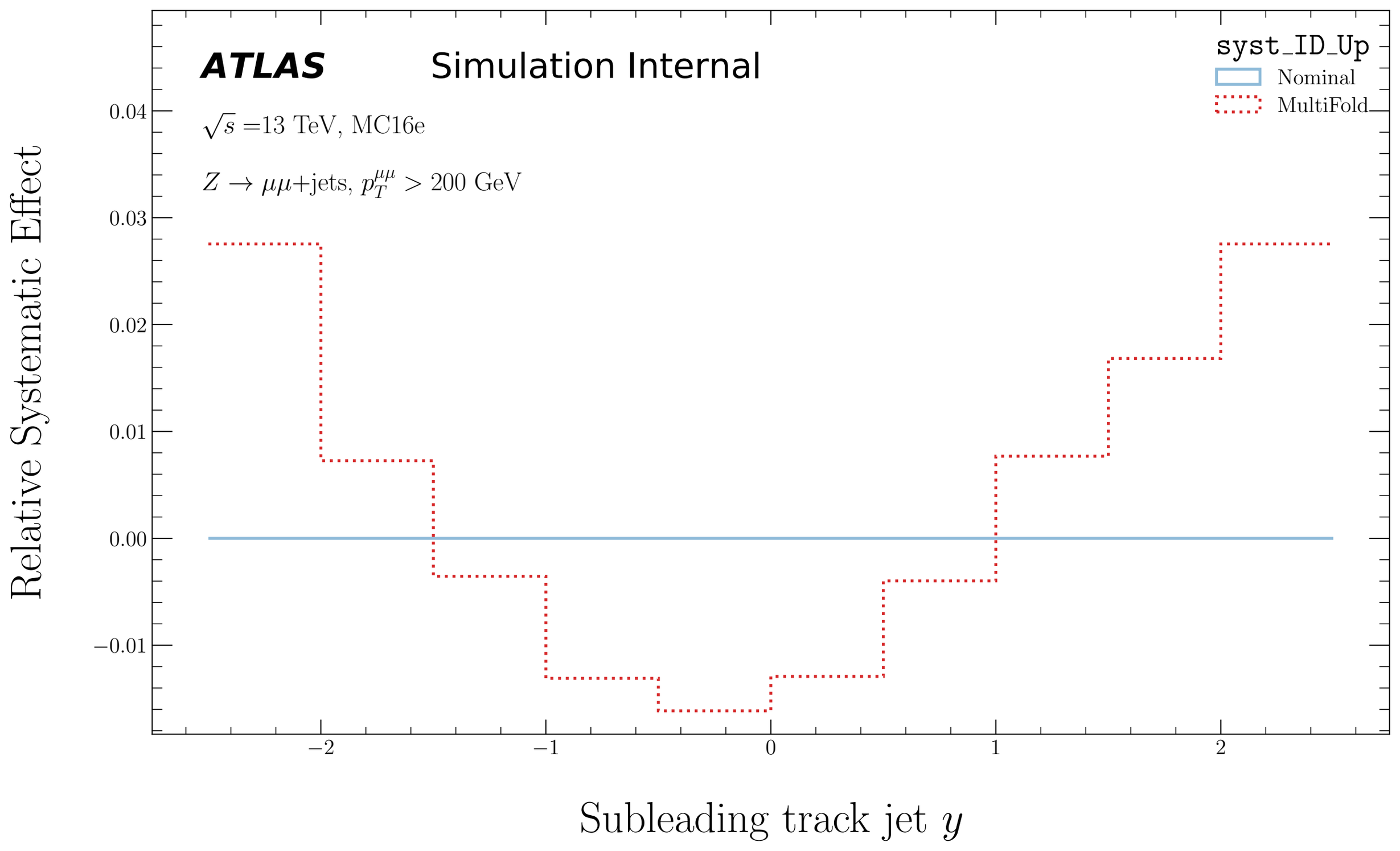

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet y
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2

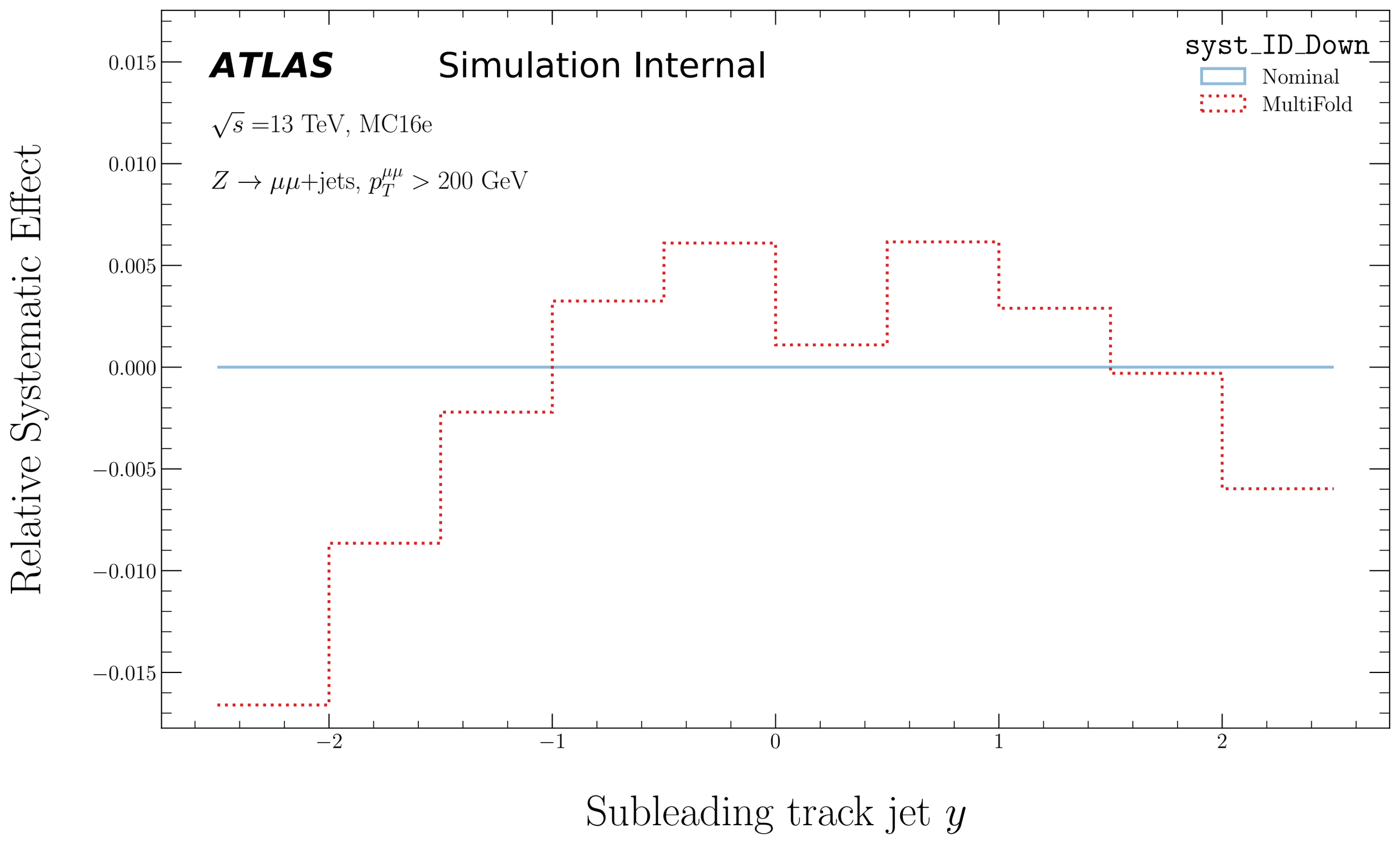

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet y
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2

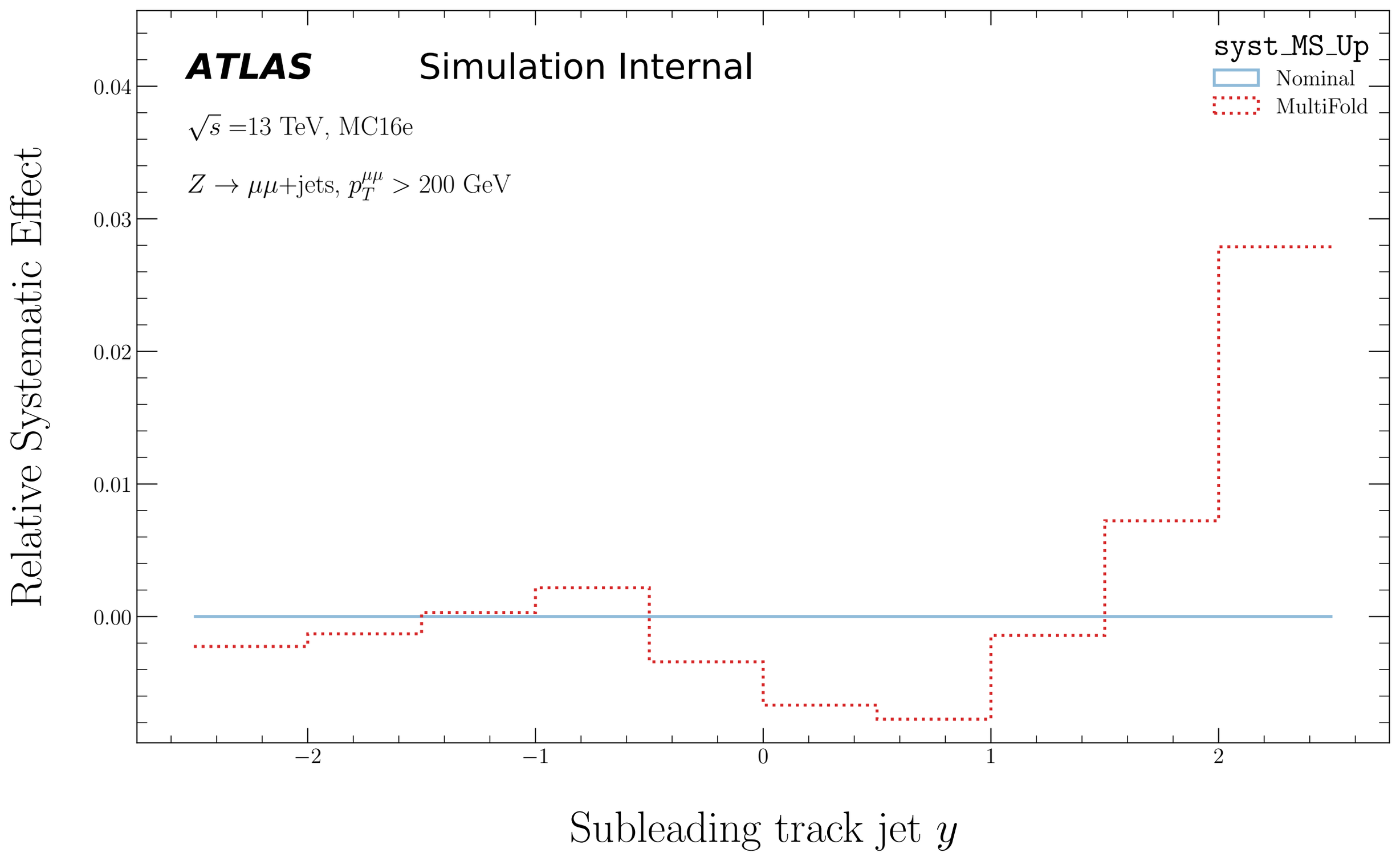

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−2
−1
0
1
2
Leading track jet y

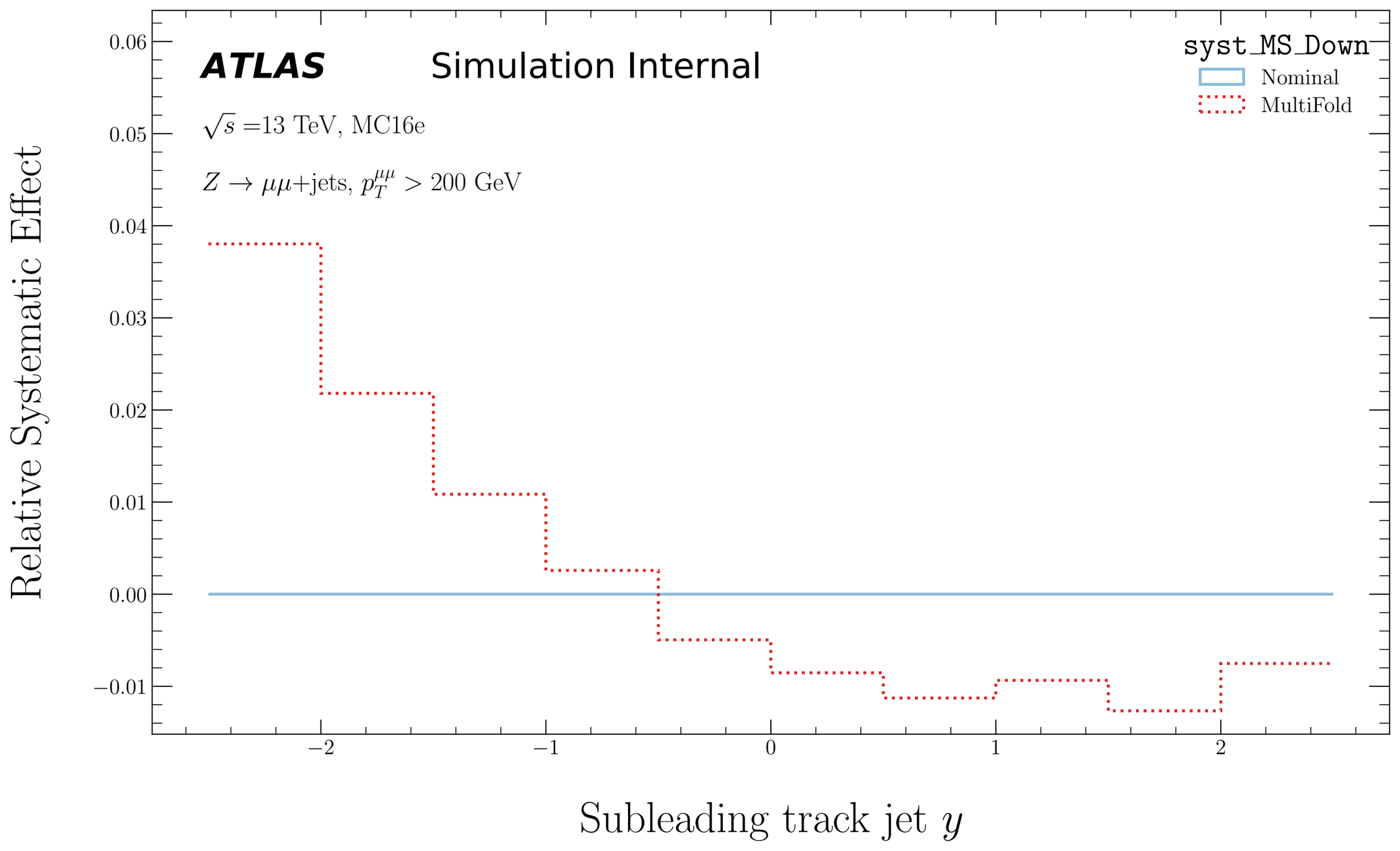

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet y
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−2
−1
0
1
2

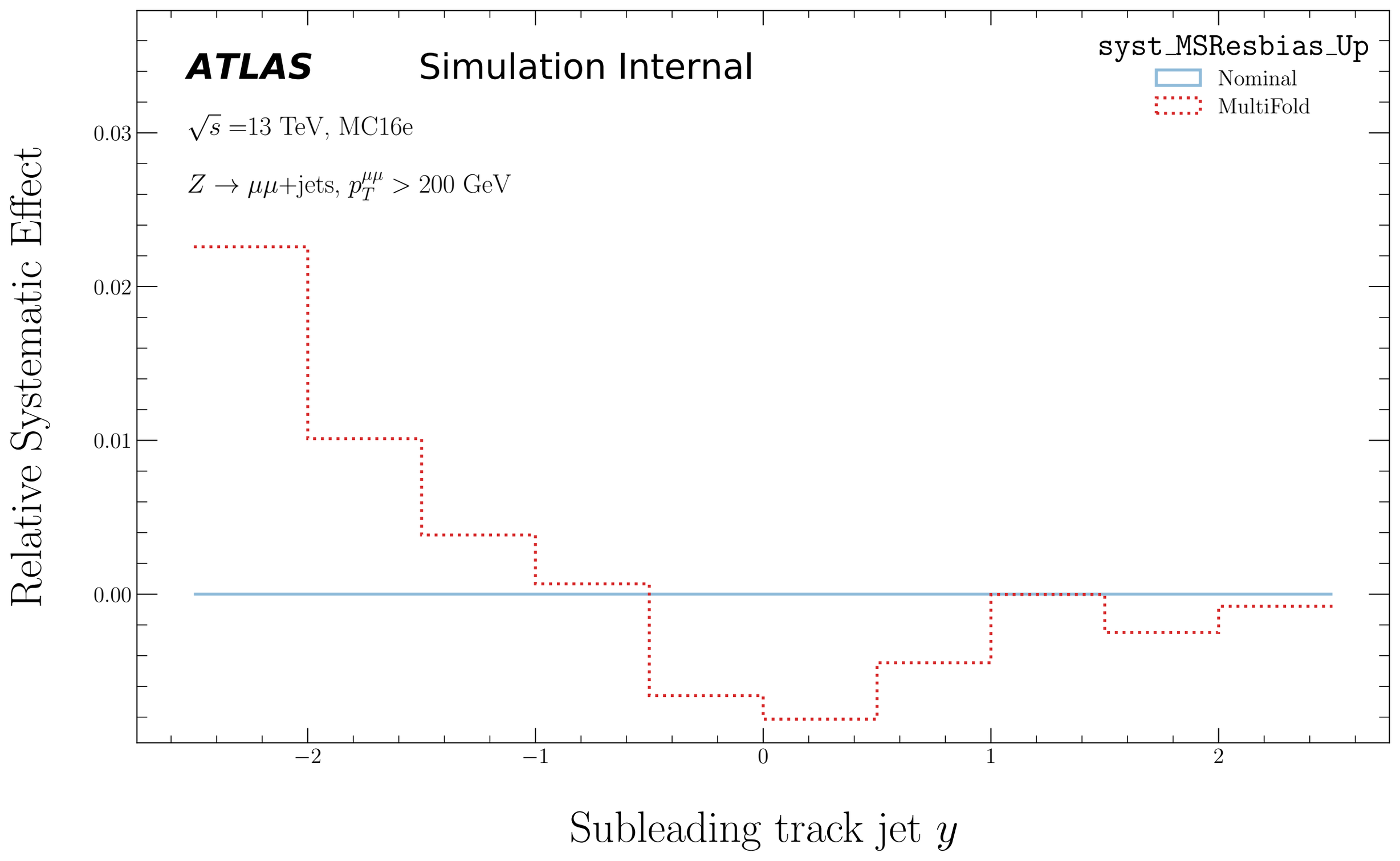

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.020
0.015
0.010
0.005
0.000
−0.005
−2
−1
0
1
2
Leading track jet y

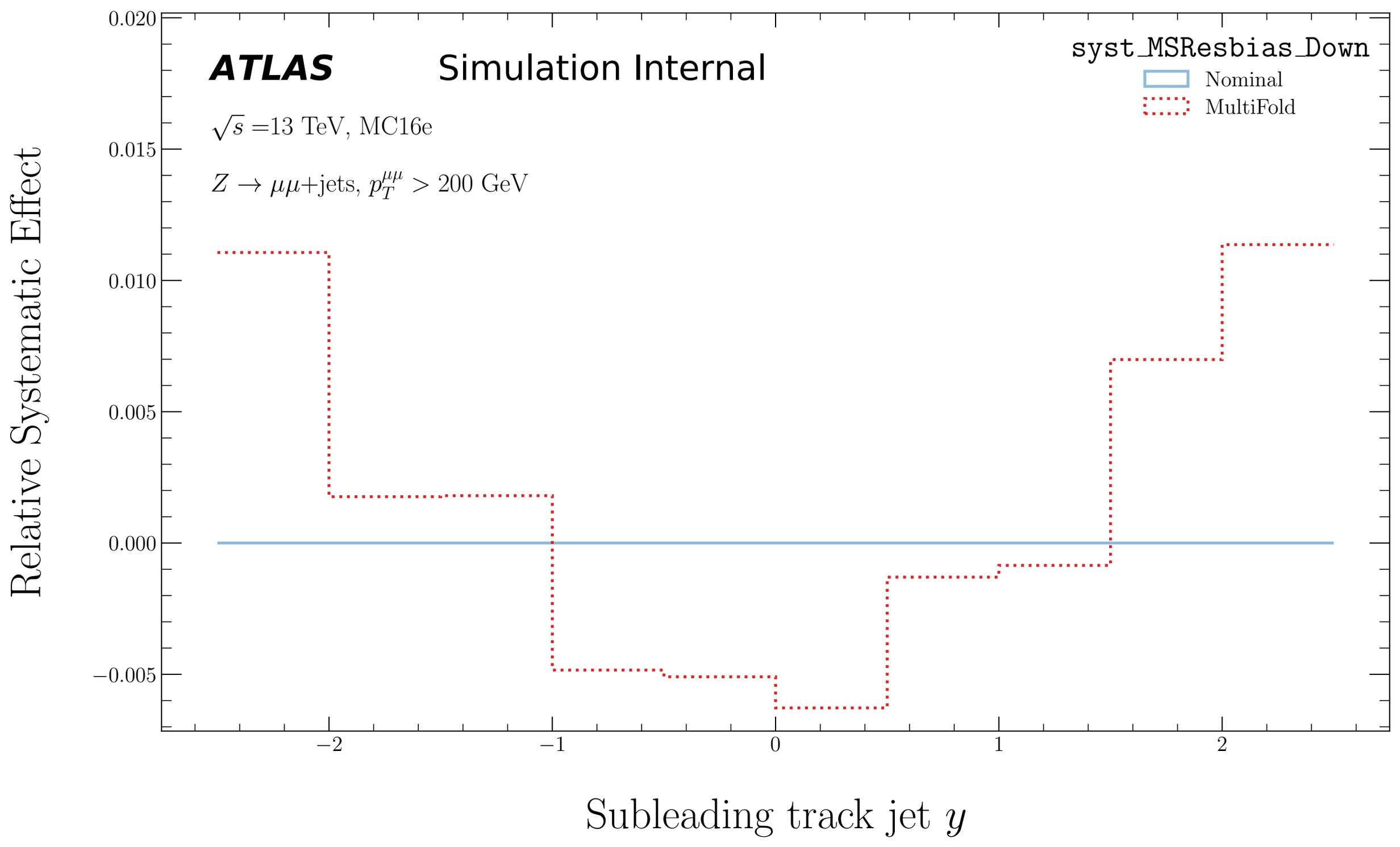

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2
Subleading track jet y

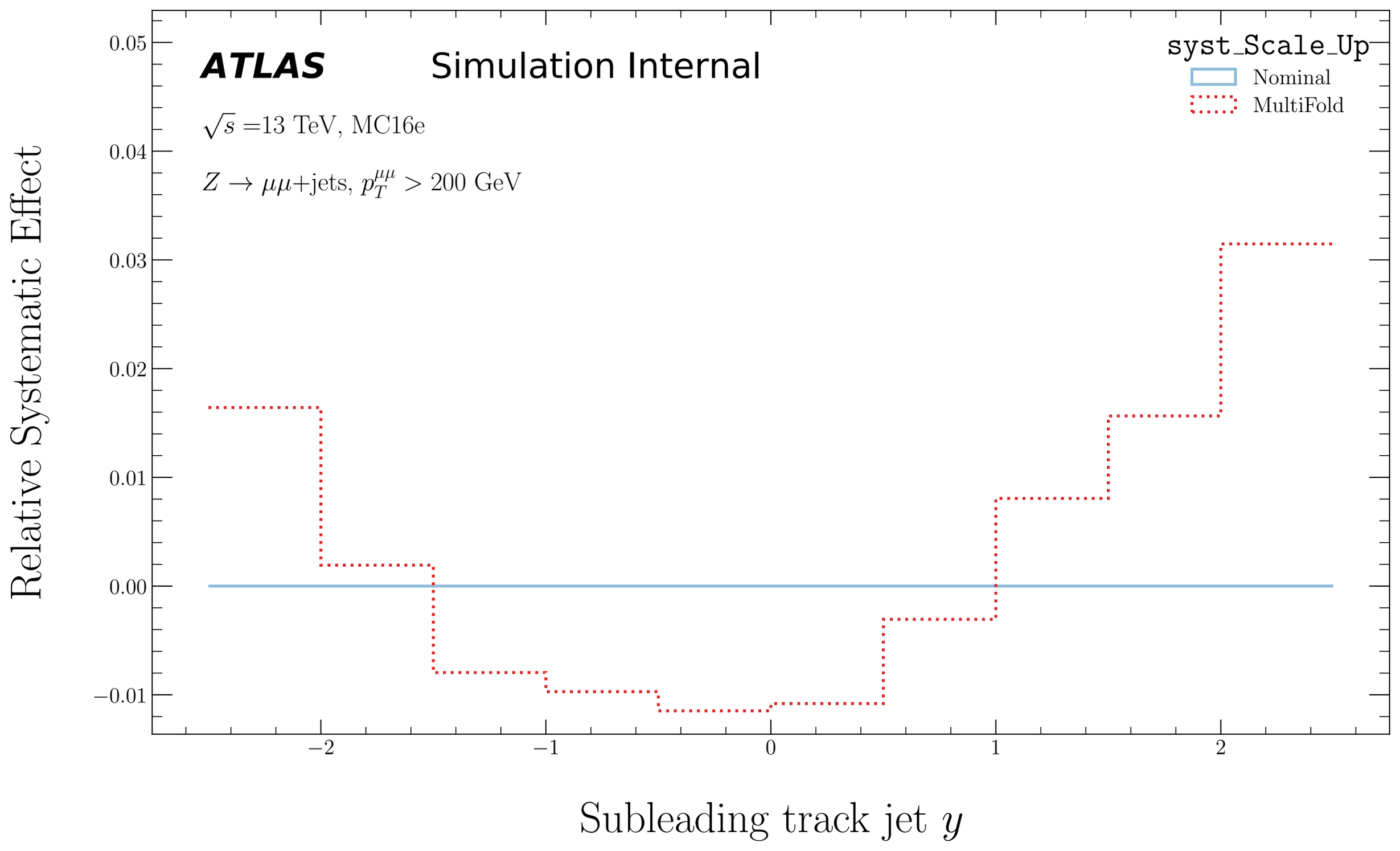

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−2
−1
0
1
2
Subleading track jet y

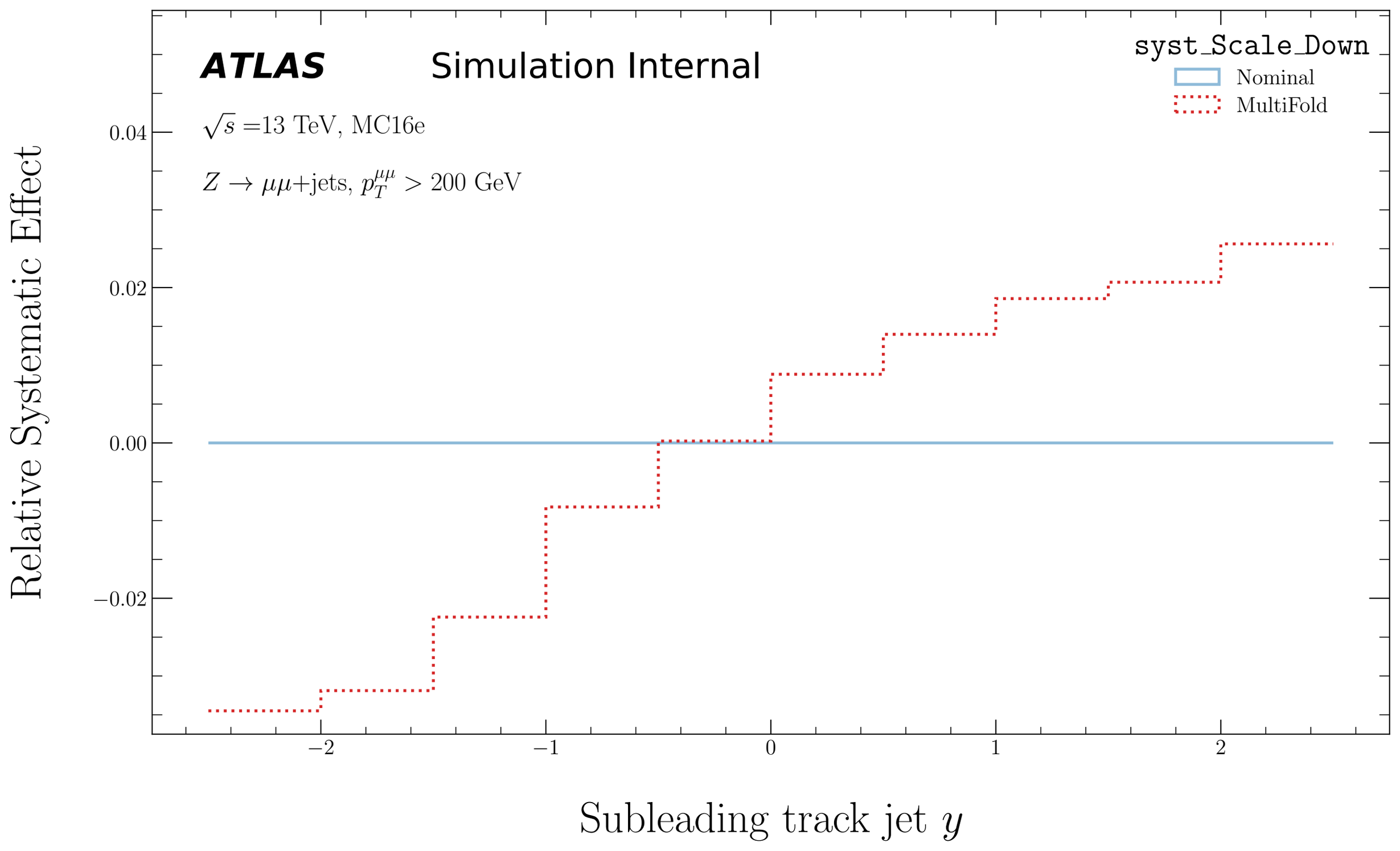

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−2
−1
0
1
2
Subleading track jet y

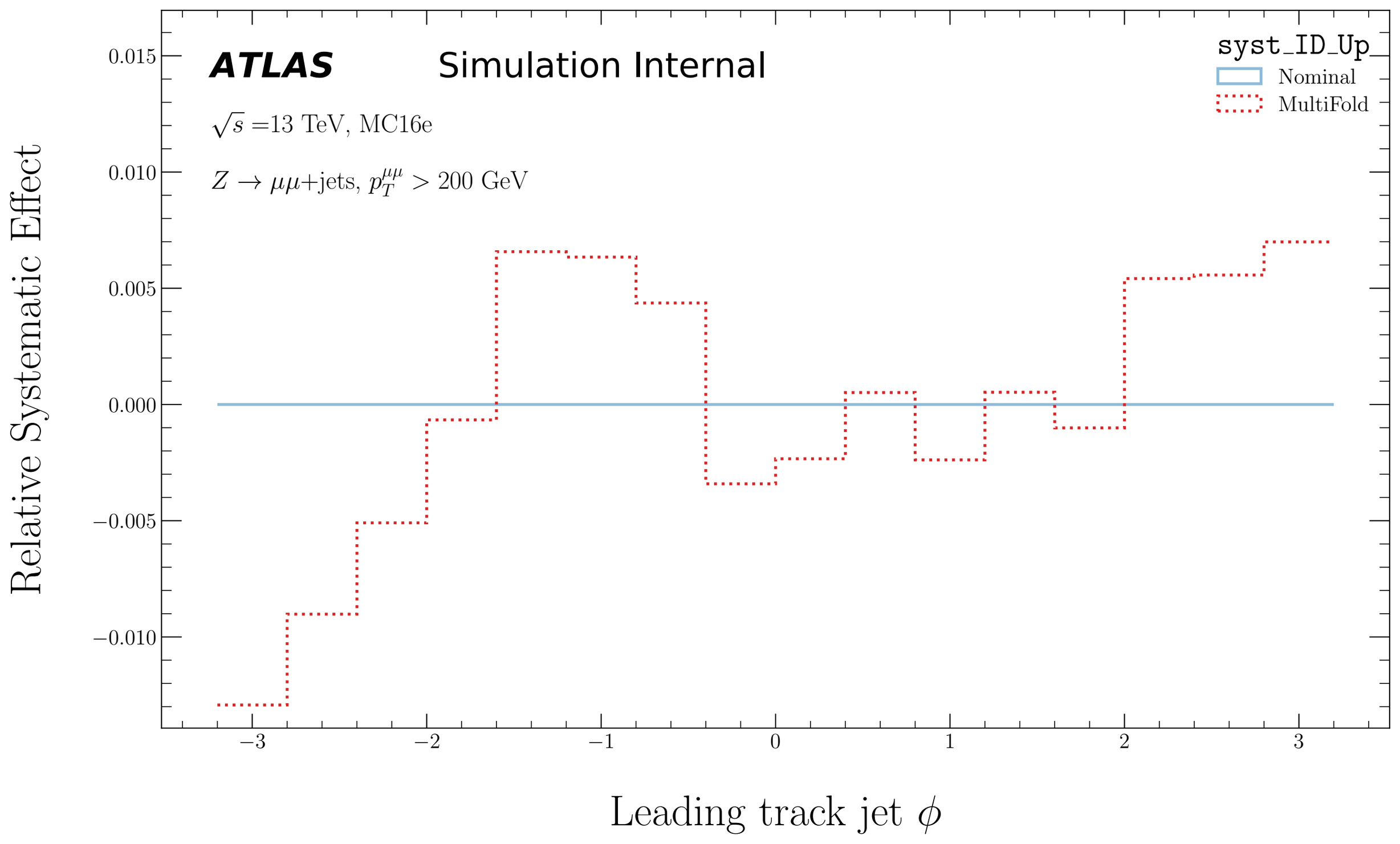

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet y
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2

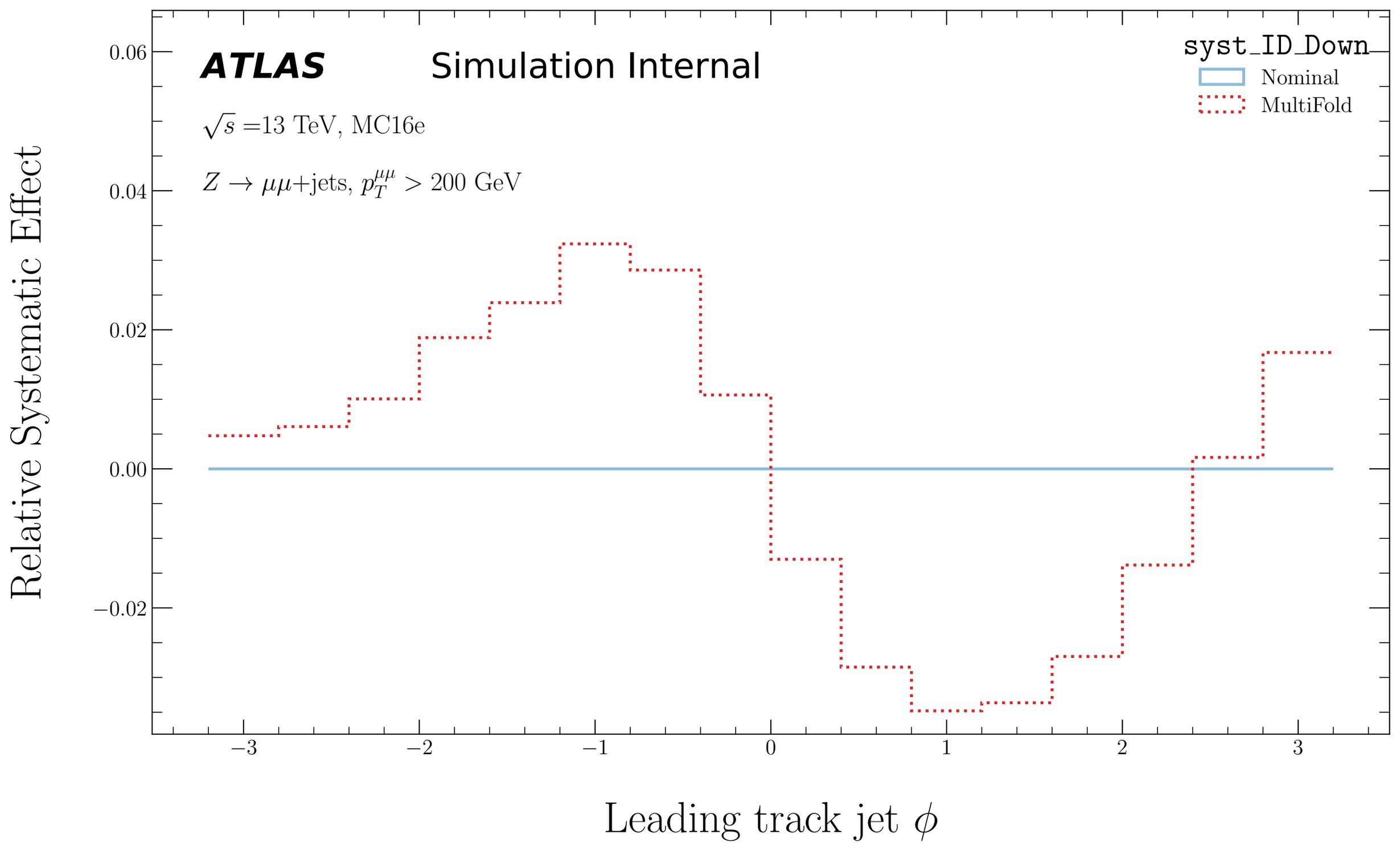

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−2
−1
0
1
2
Subleading track jet y

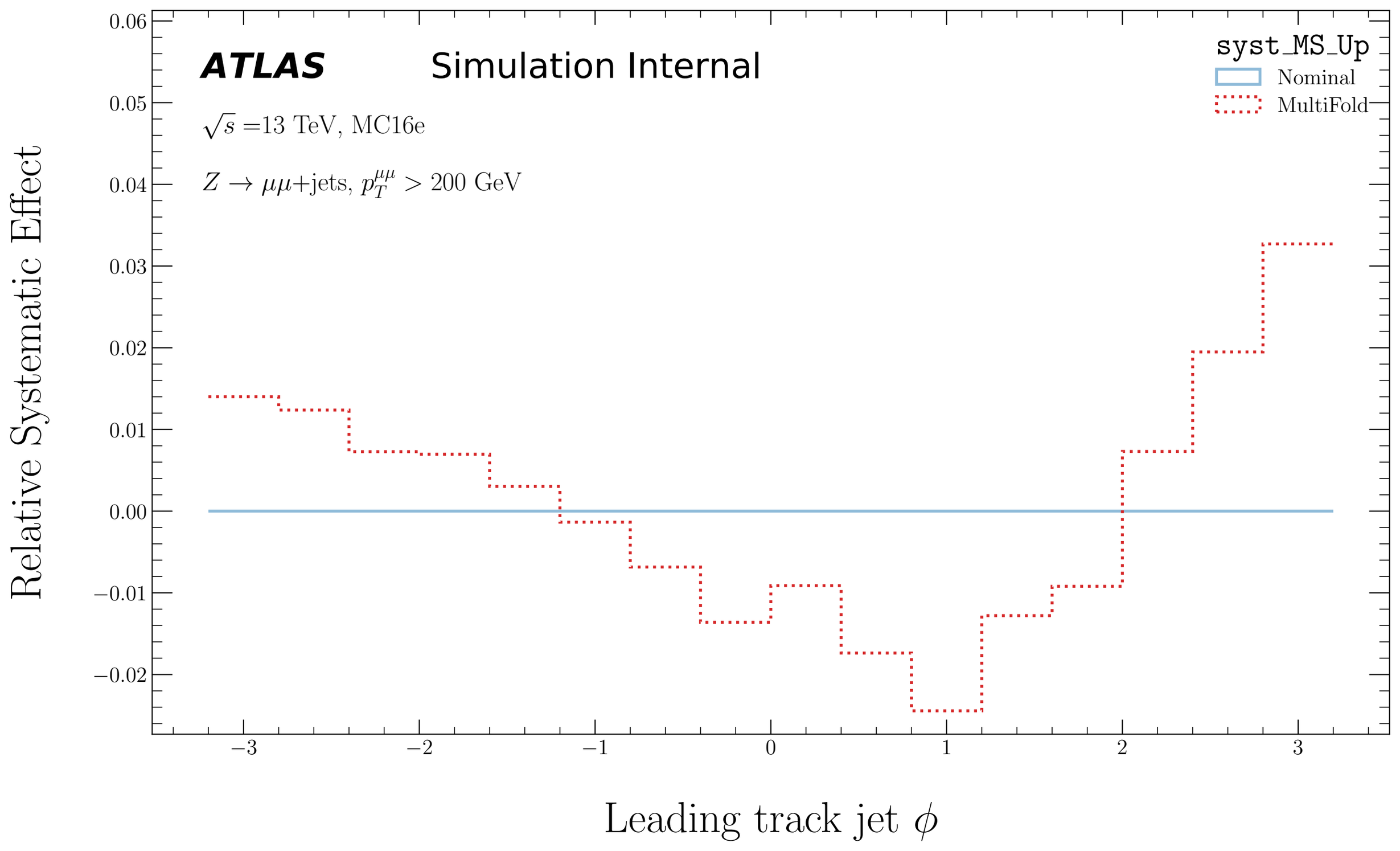

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet y
0.020
0.015
0.010
0.005
0.000
−0.005
−2
−1
0
1
2

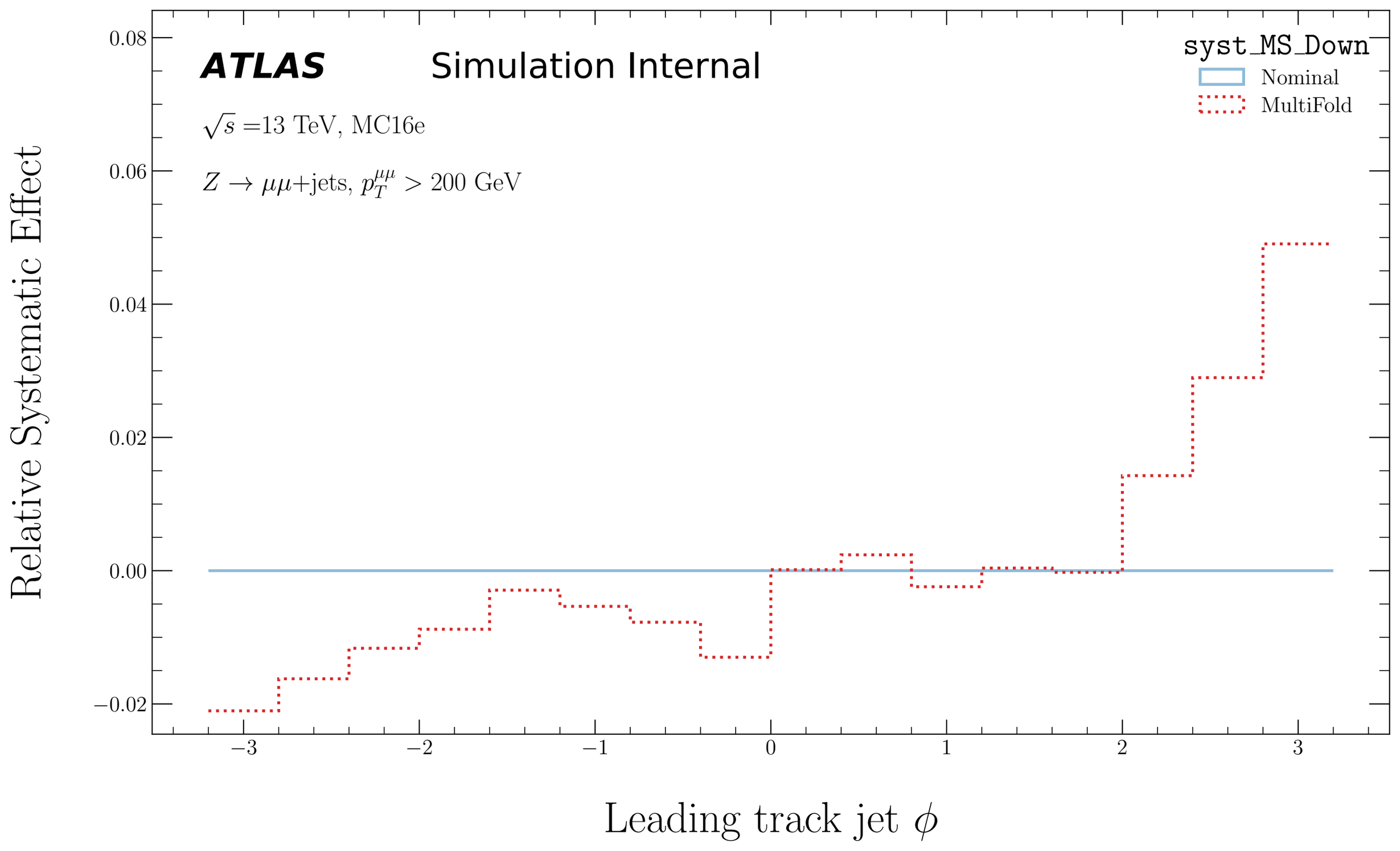

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2
Subleading track jet y

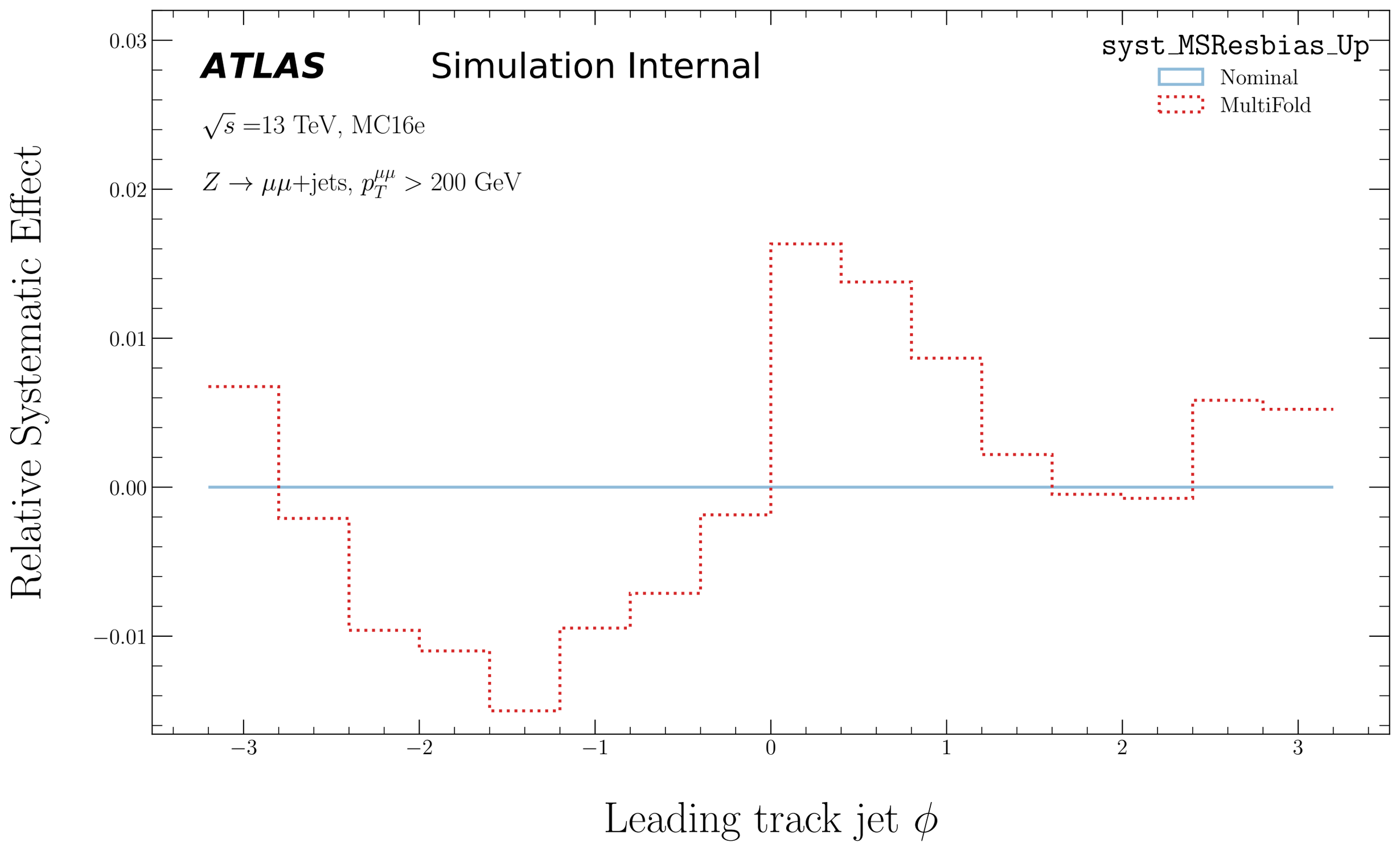

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
Subleading track jet y

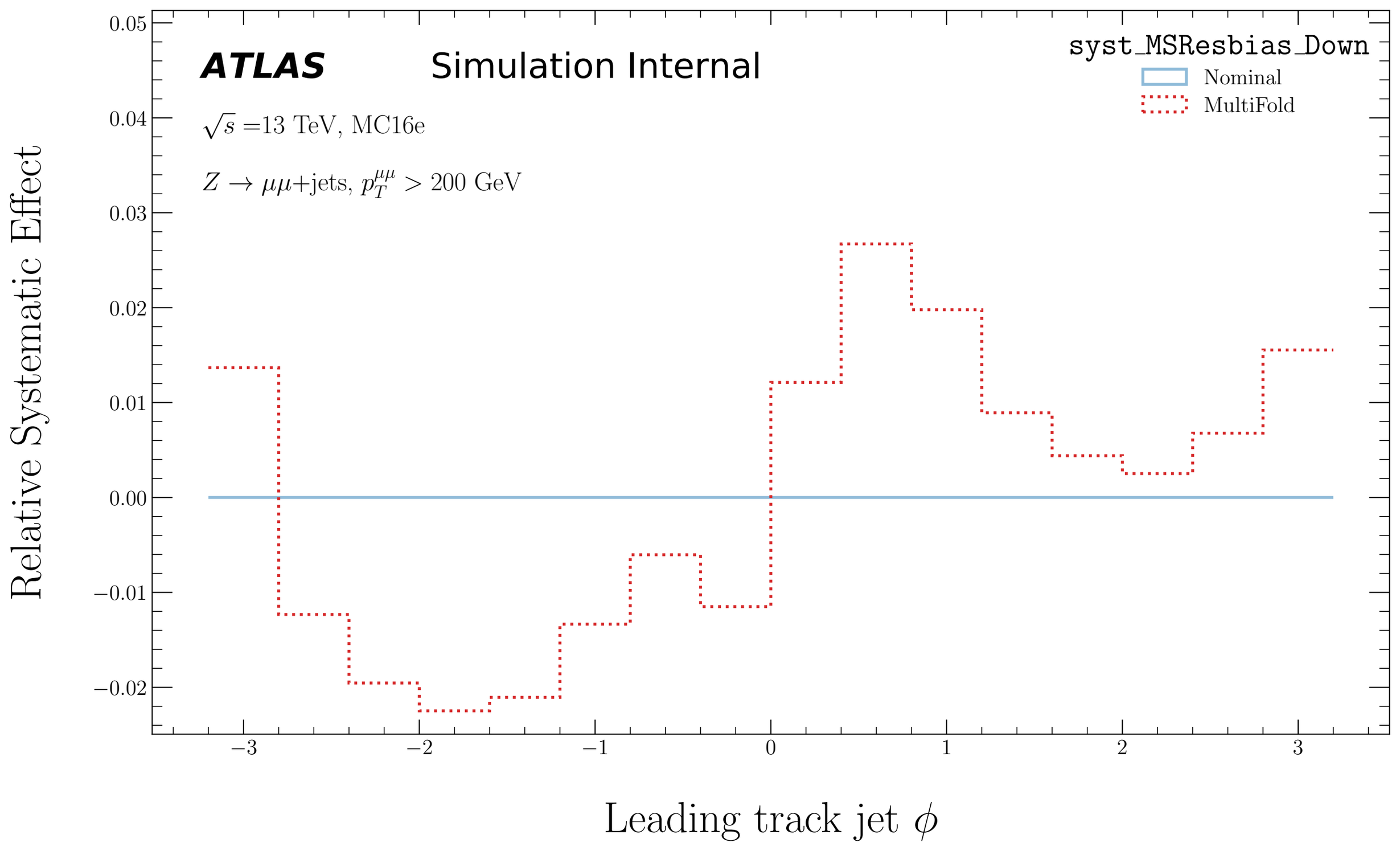

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.015
0.010
0.005
0.000
−0.005
−0.010
−3
−2
−1
0
1
2
3
Leading track jet ϕ

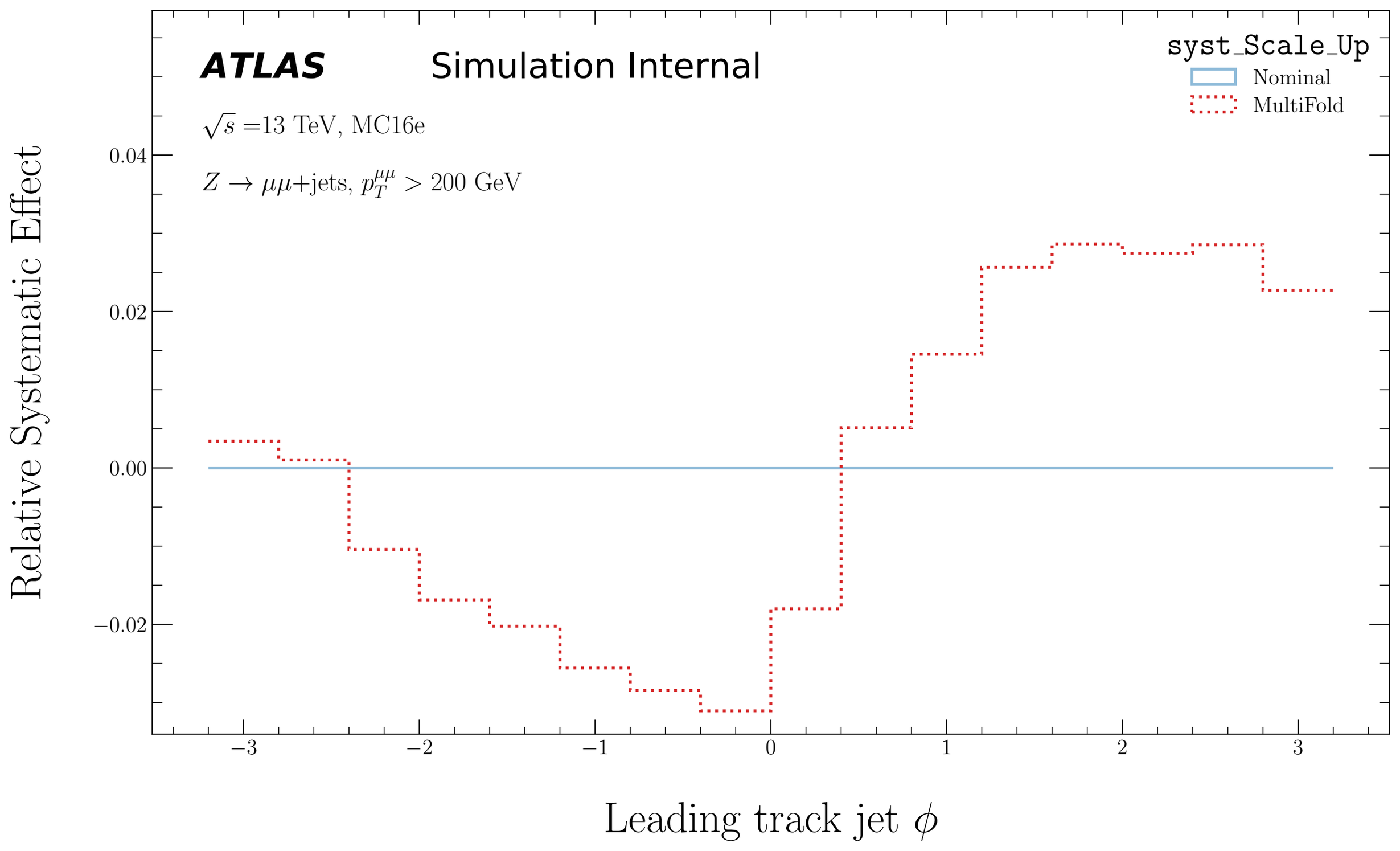

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.06
0.04
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3

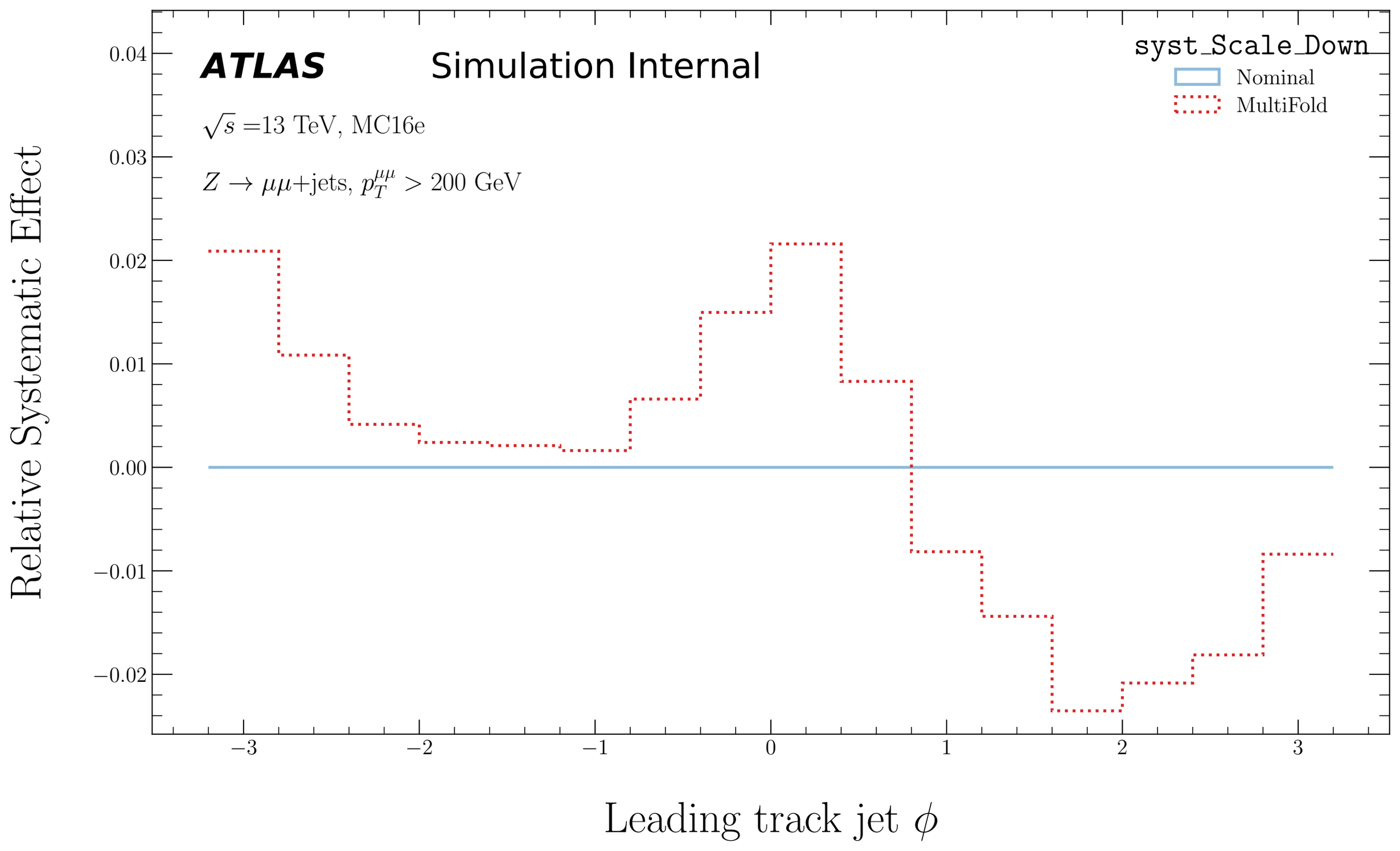

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3

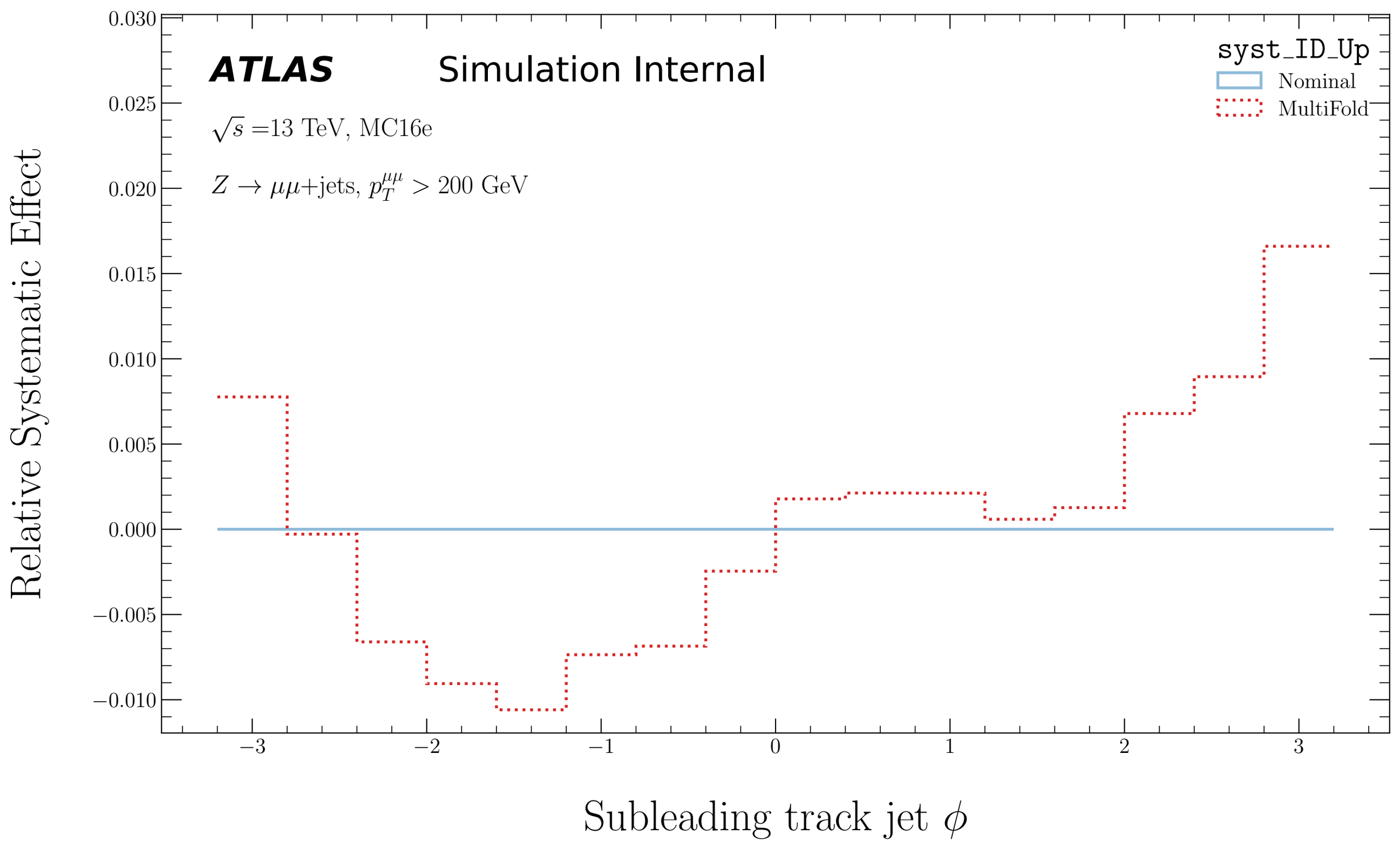

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.08
0.06
0.04
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3

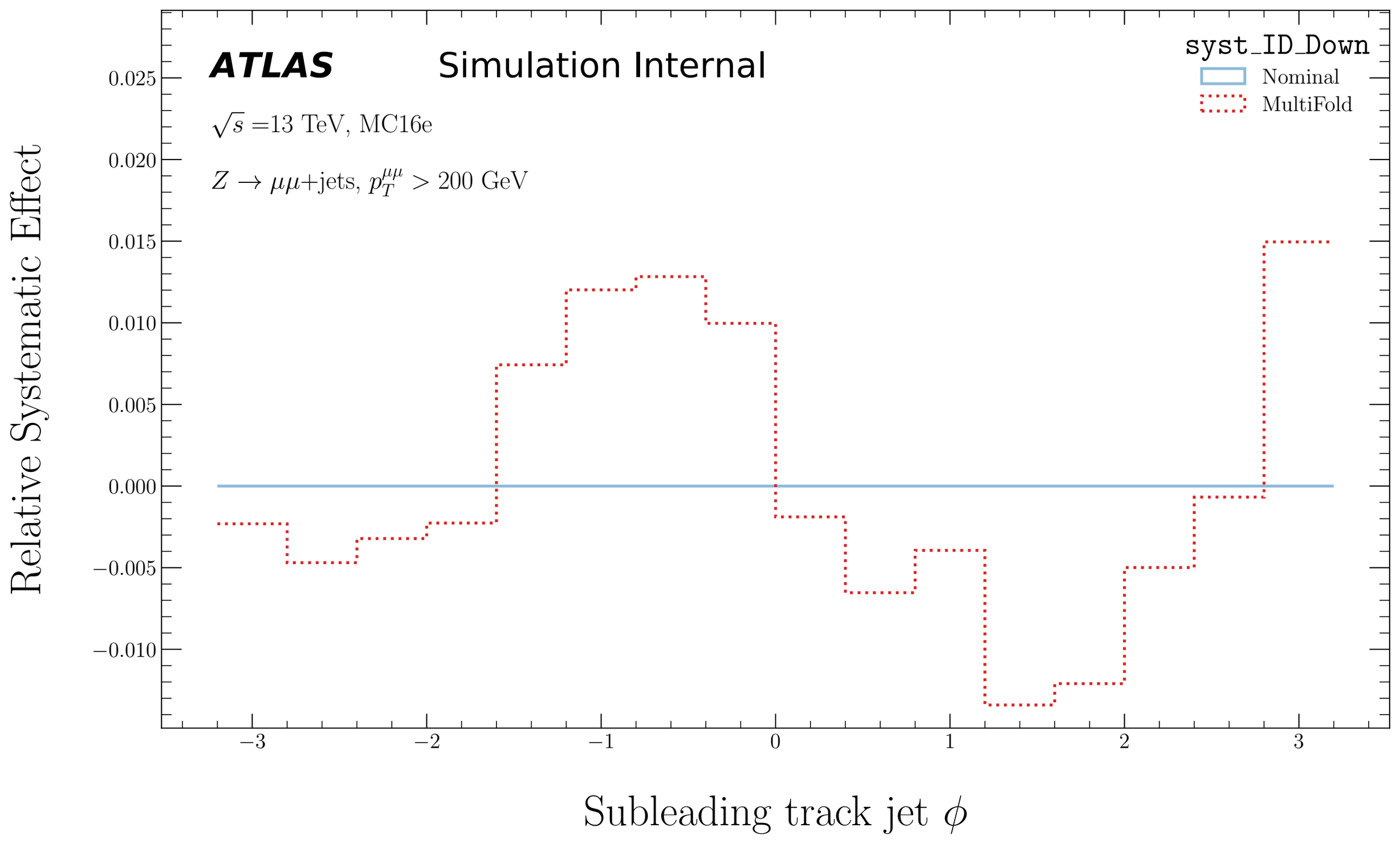

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3

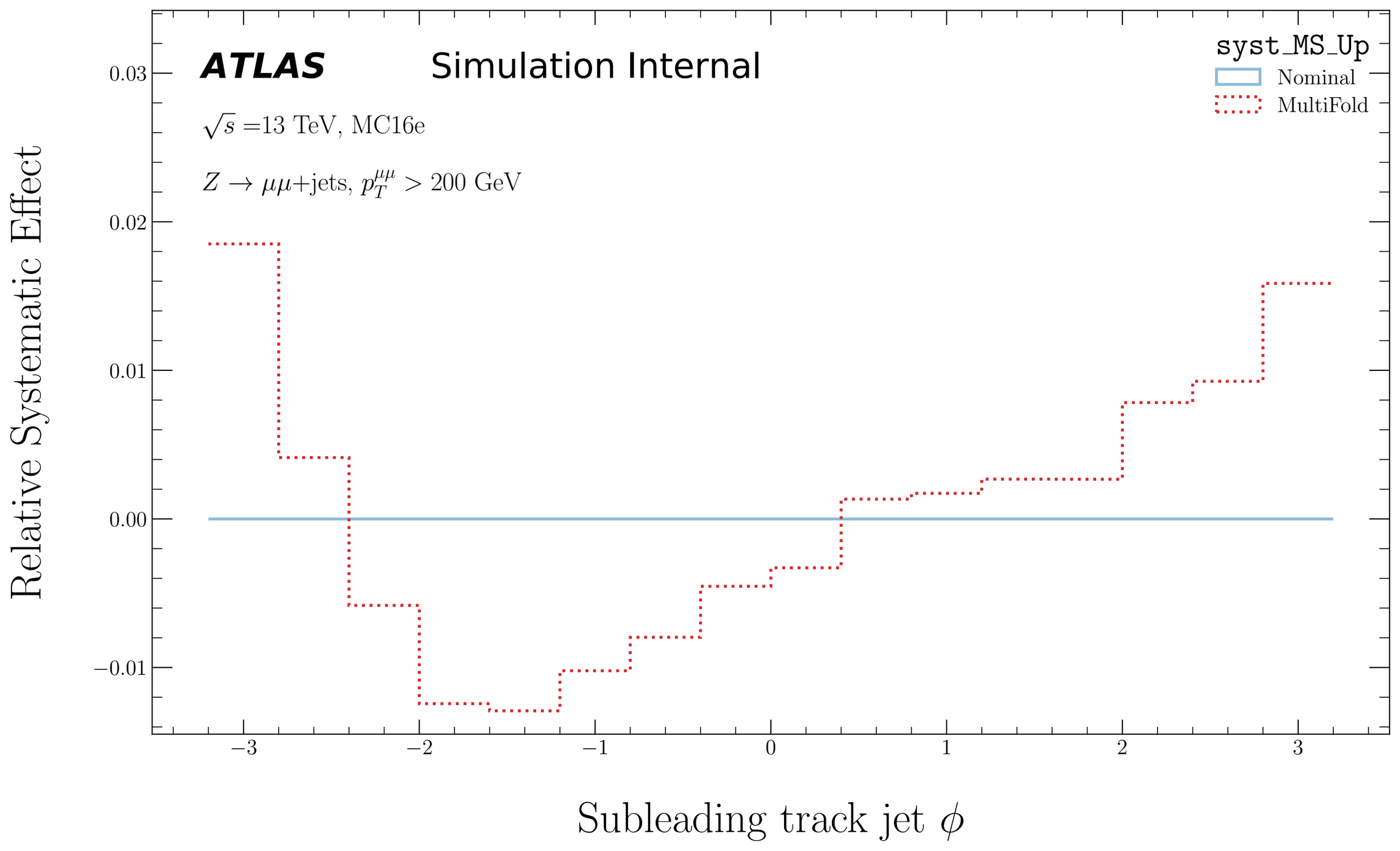

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3

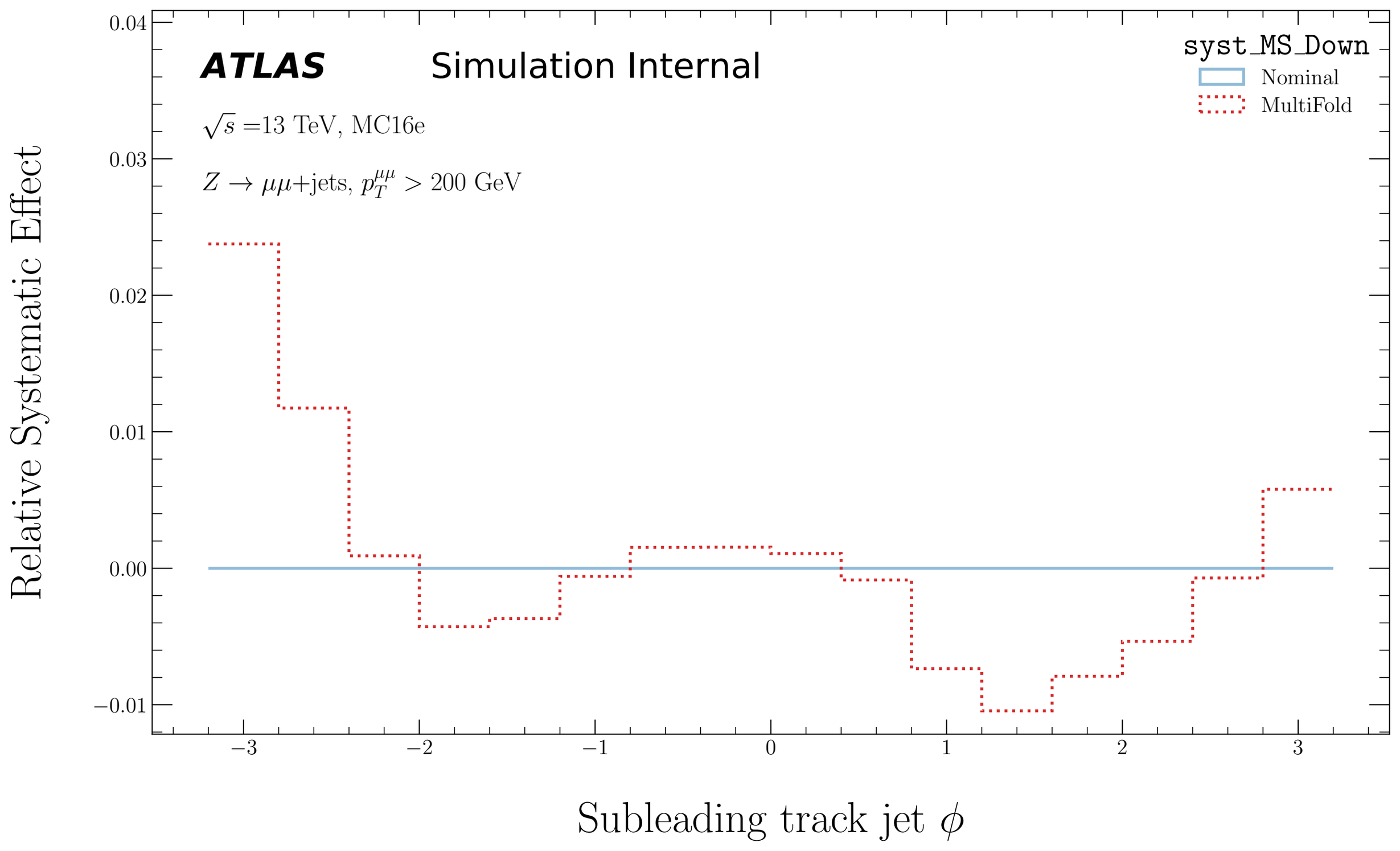

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3
Leading track jet ϕ

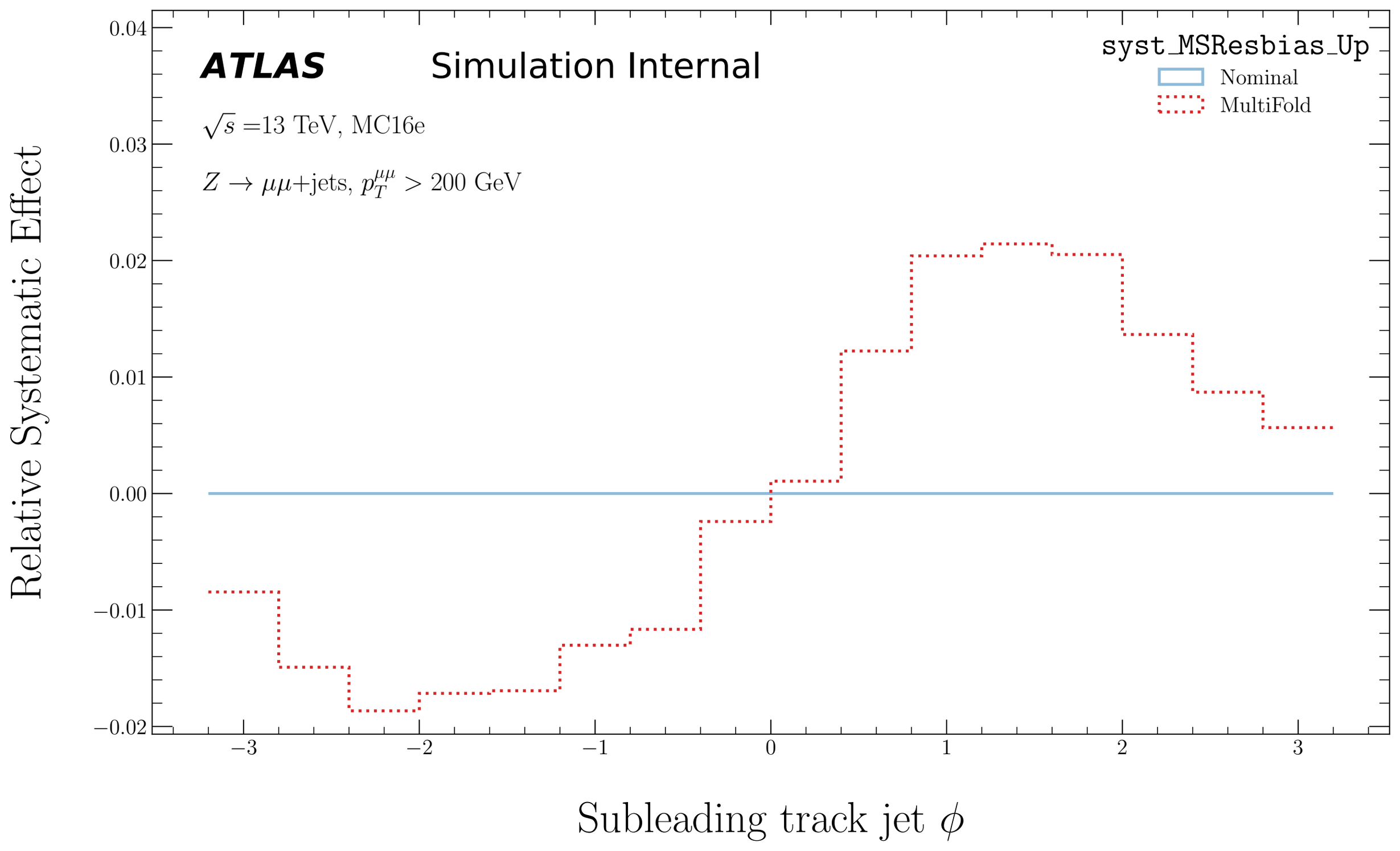

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet ϕ
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3

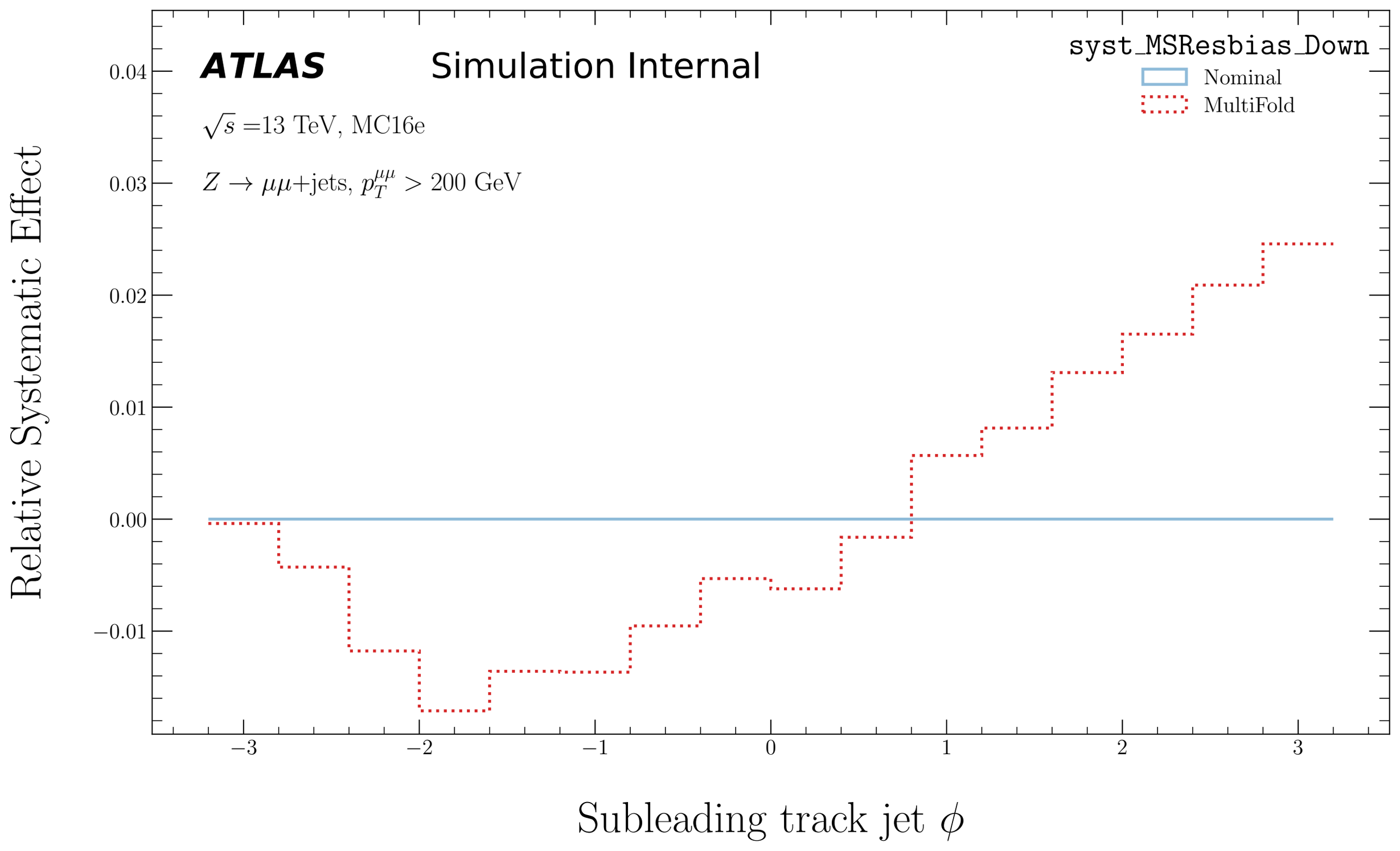

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet ϕ
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−3
−2
−1
0
1
2
3

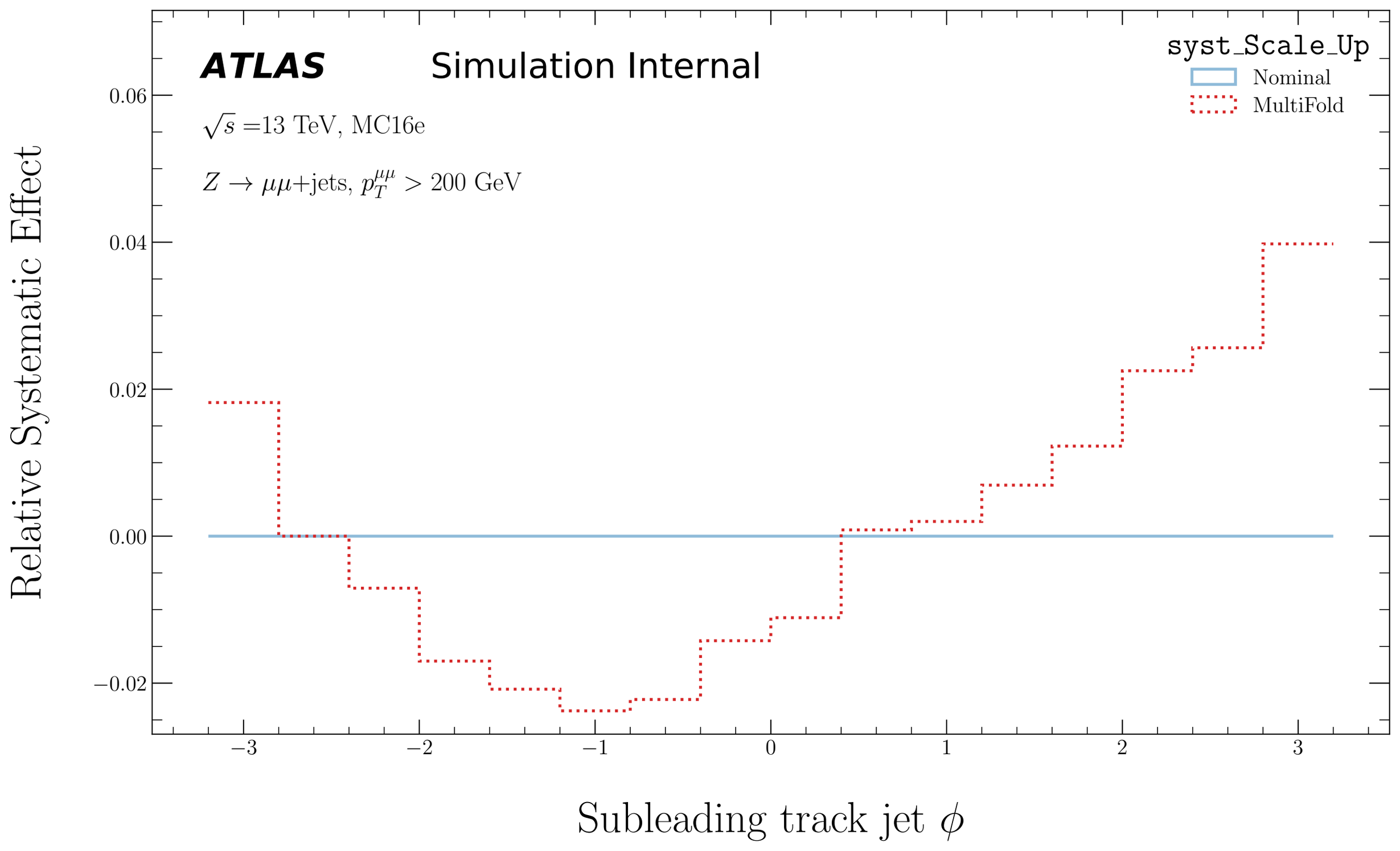

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−3
−2
−1
0
1
2
3
Subleading track jet ϕ

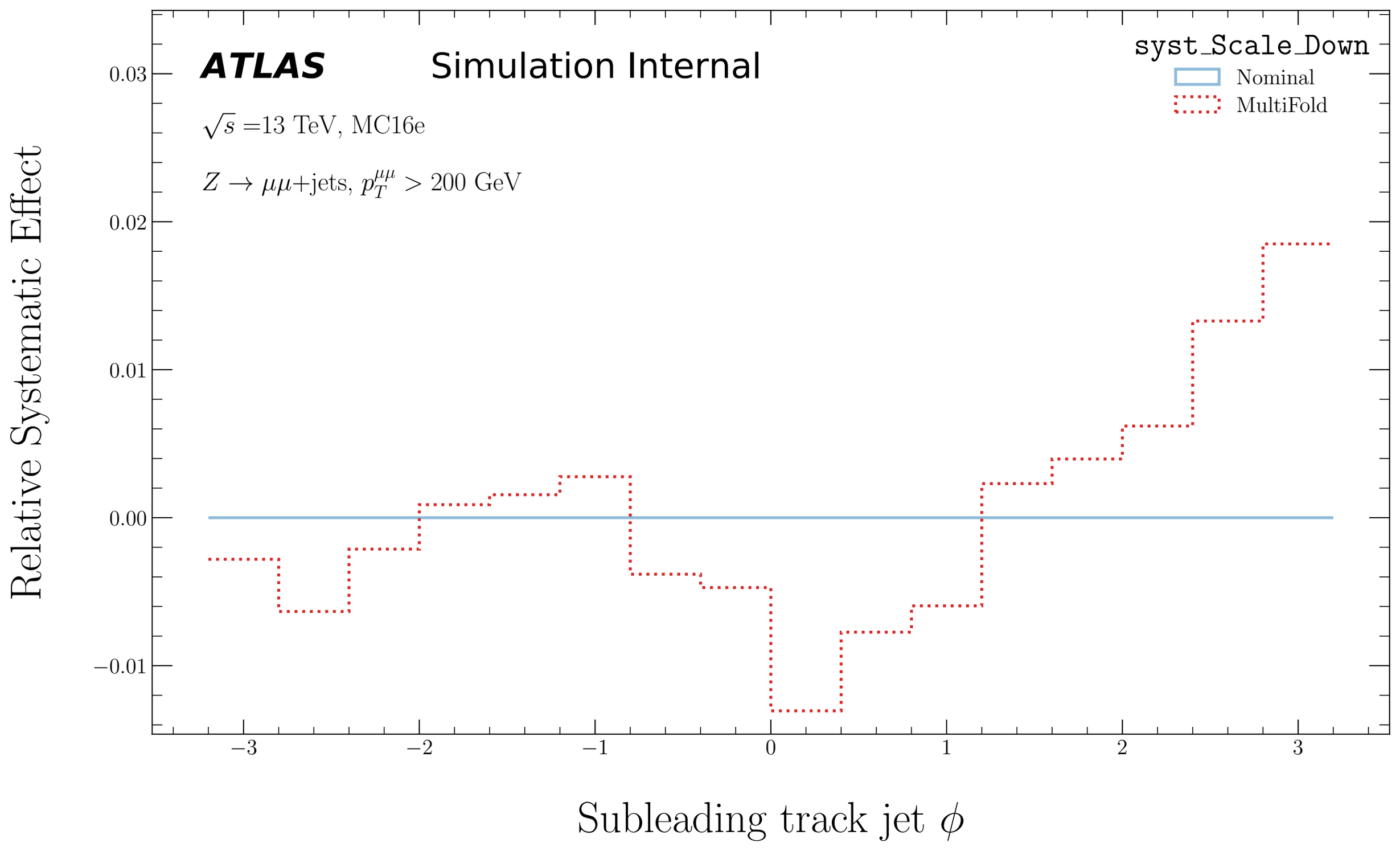

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
Subleading track jet ϕ

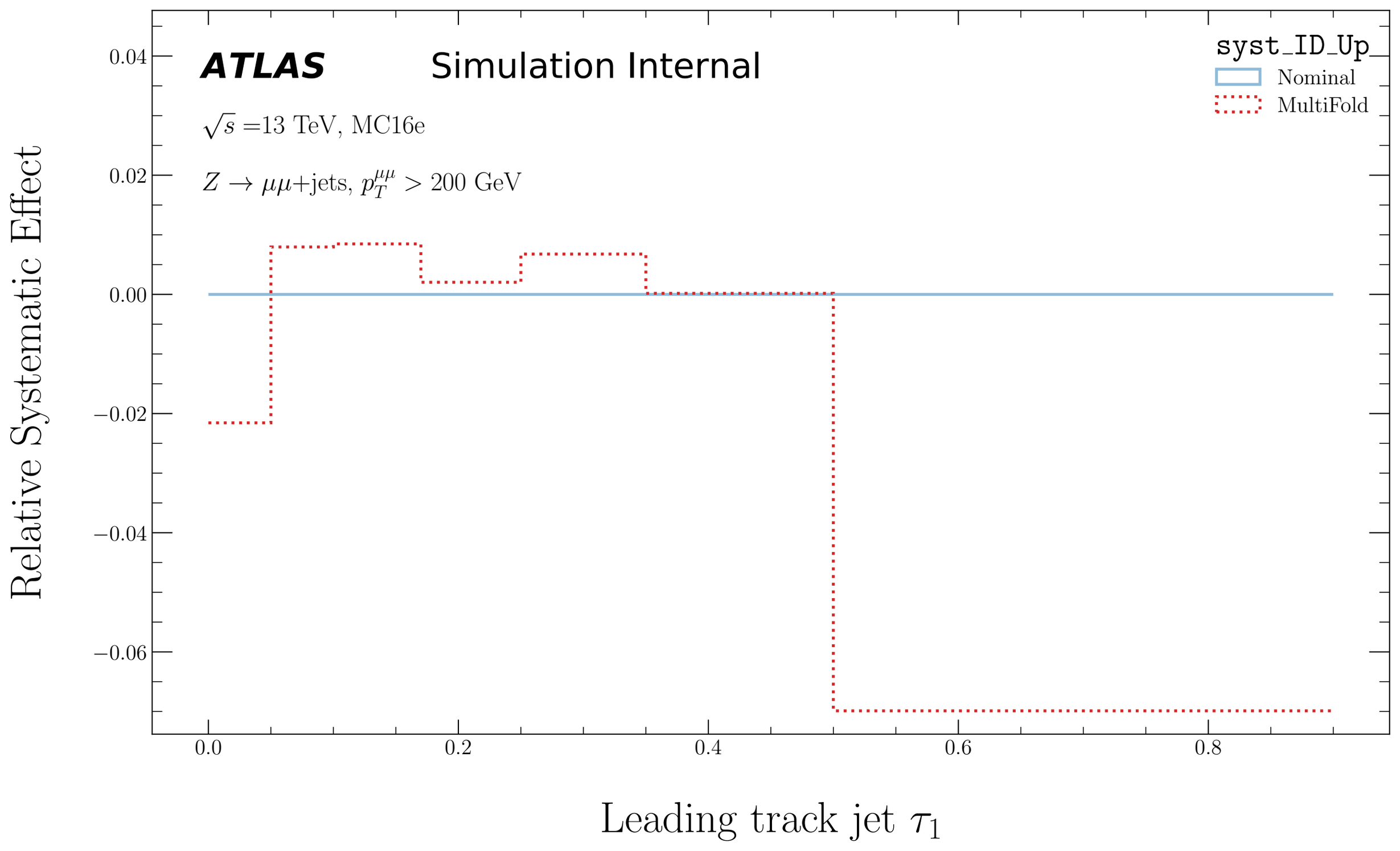

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet ϕ
0.04
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3

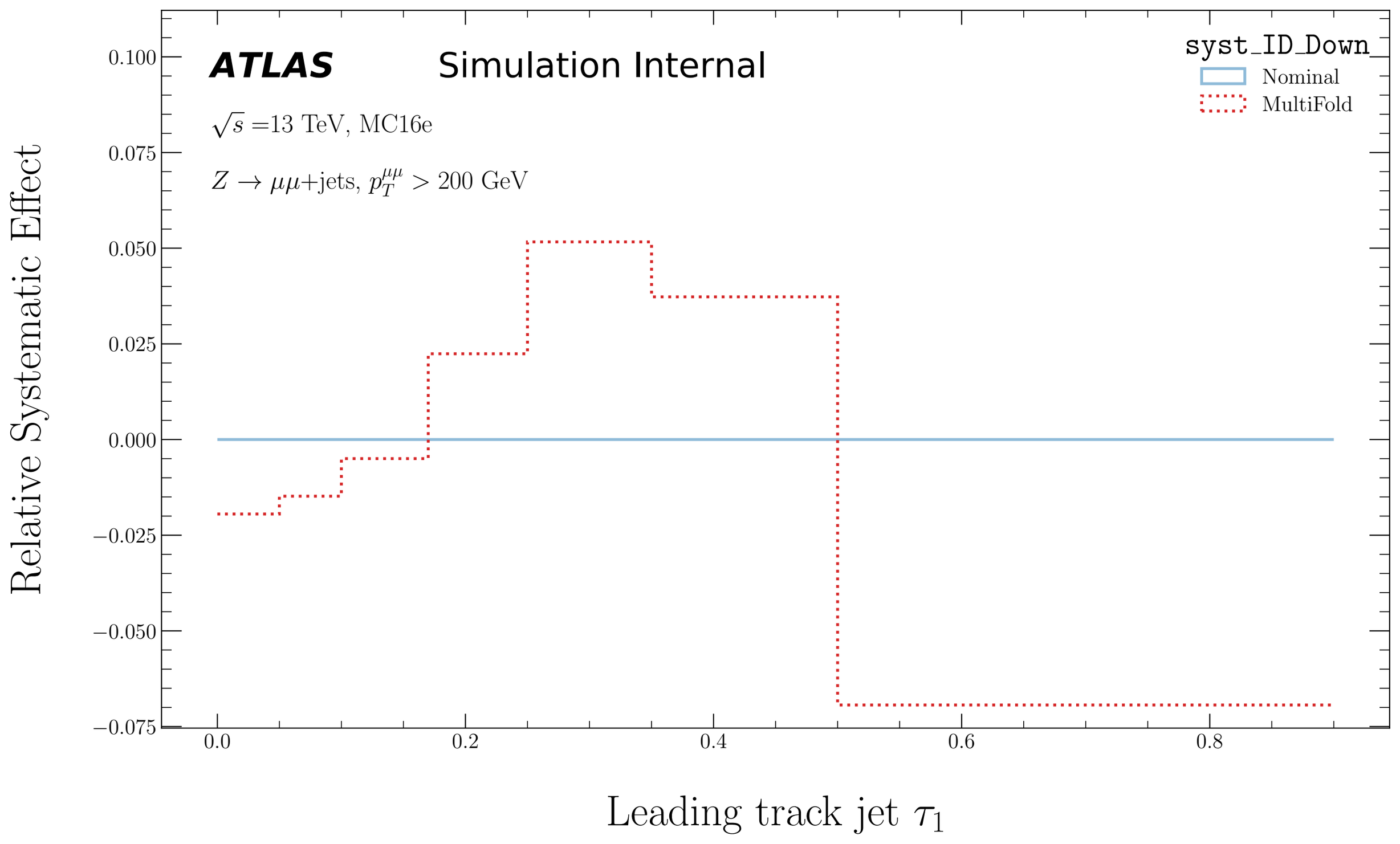

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet ϕ
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3

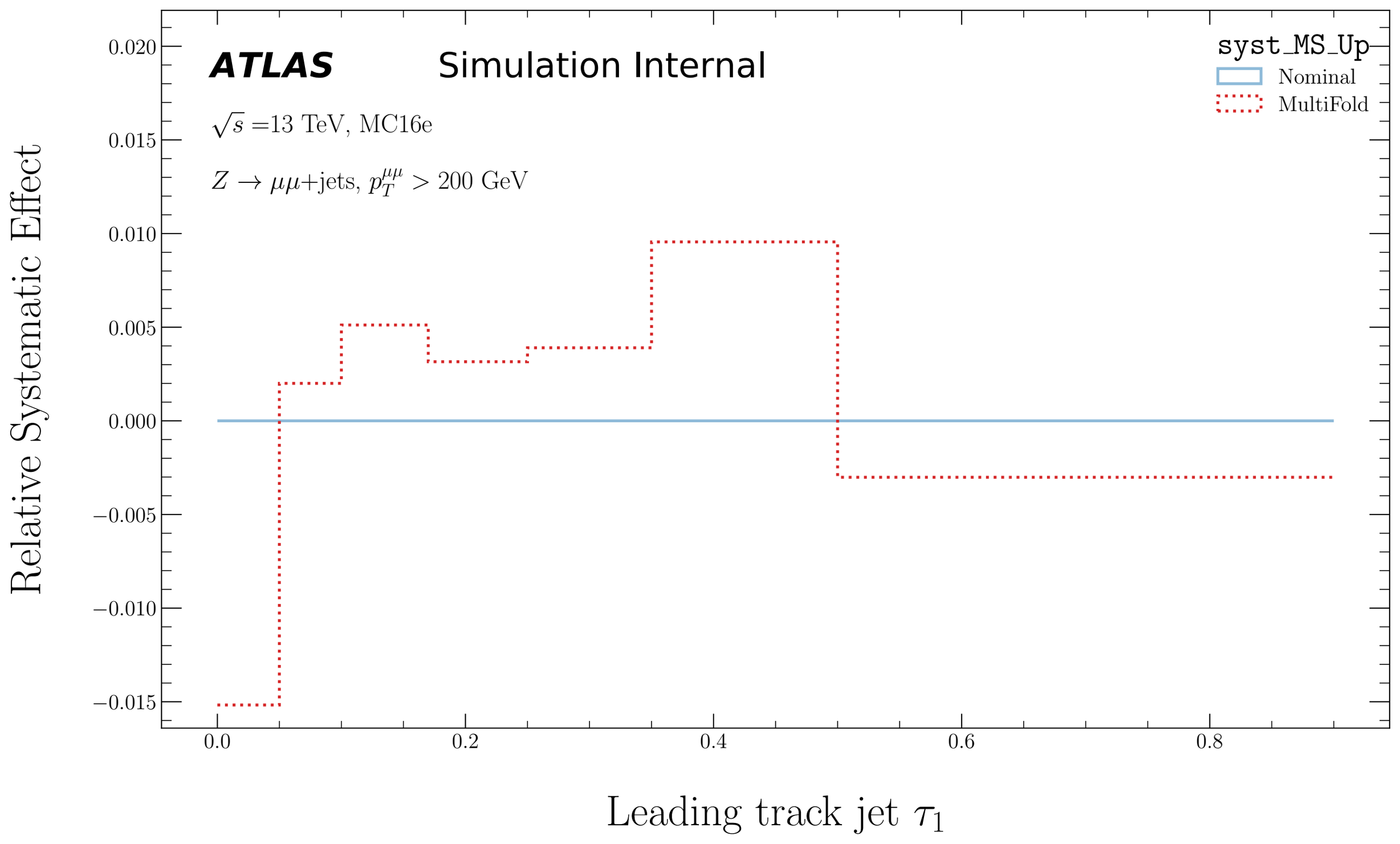

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet ϕ
0.04
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3

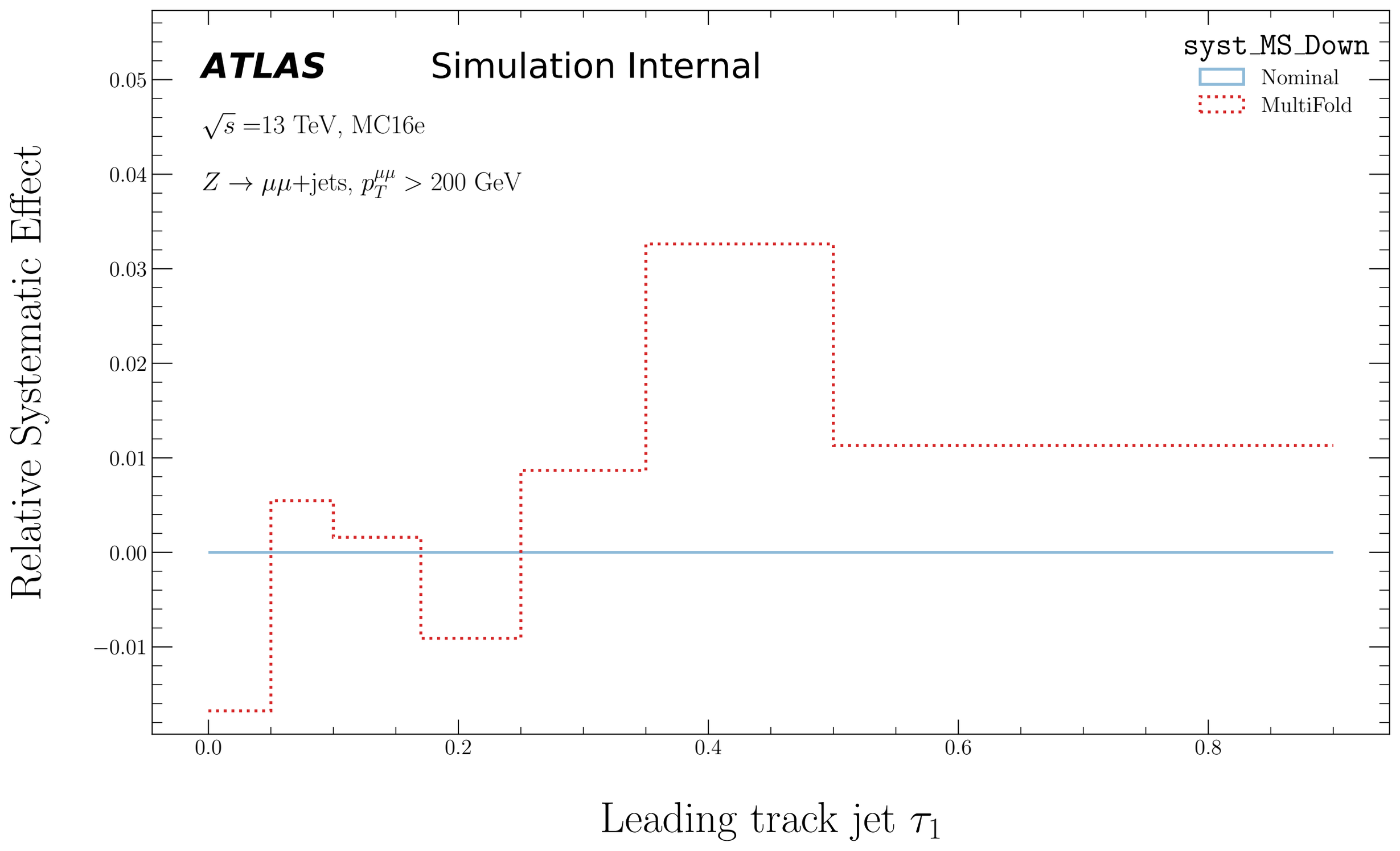

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3
Subleading track jet ϕ

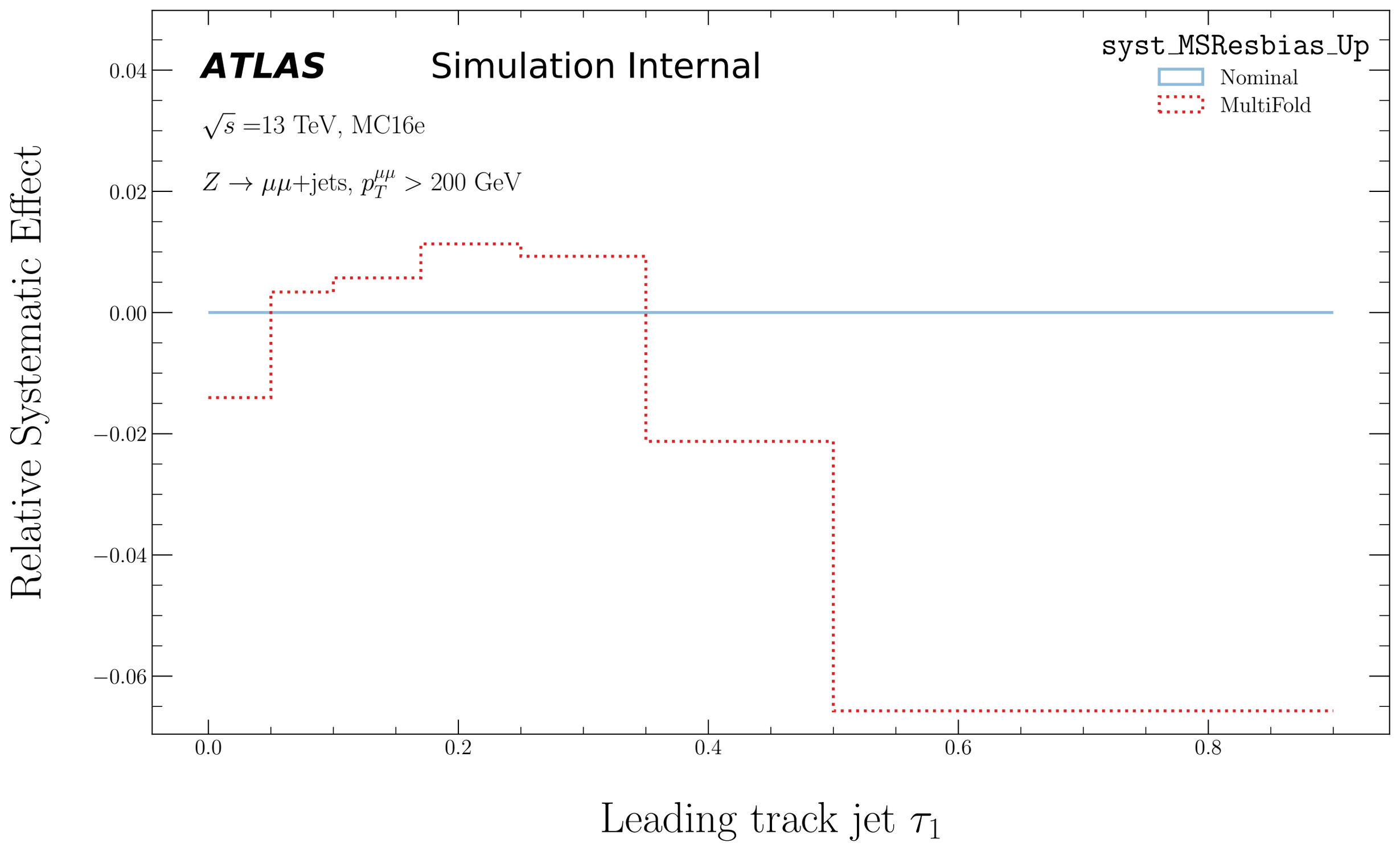

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
Subleading track jet ϕ

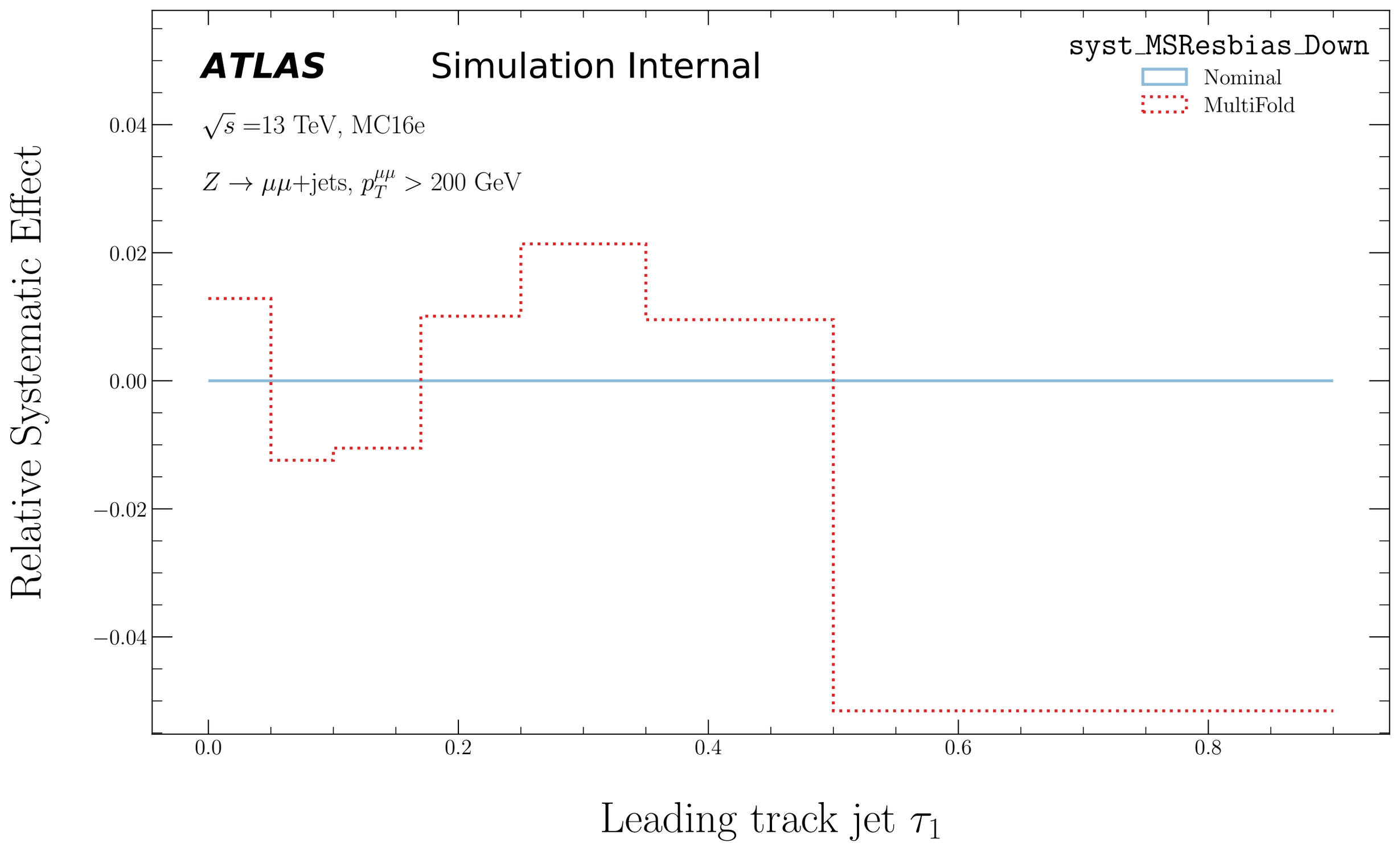

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

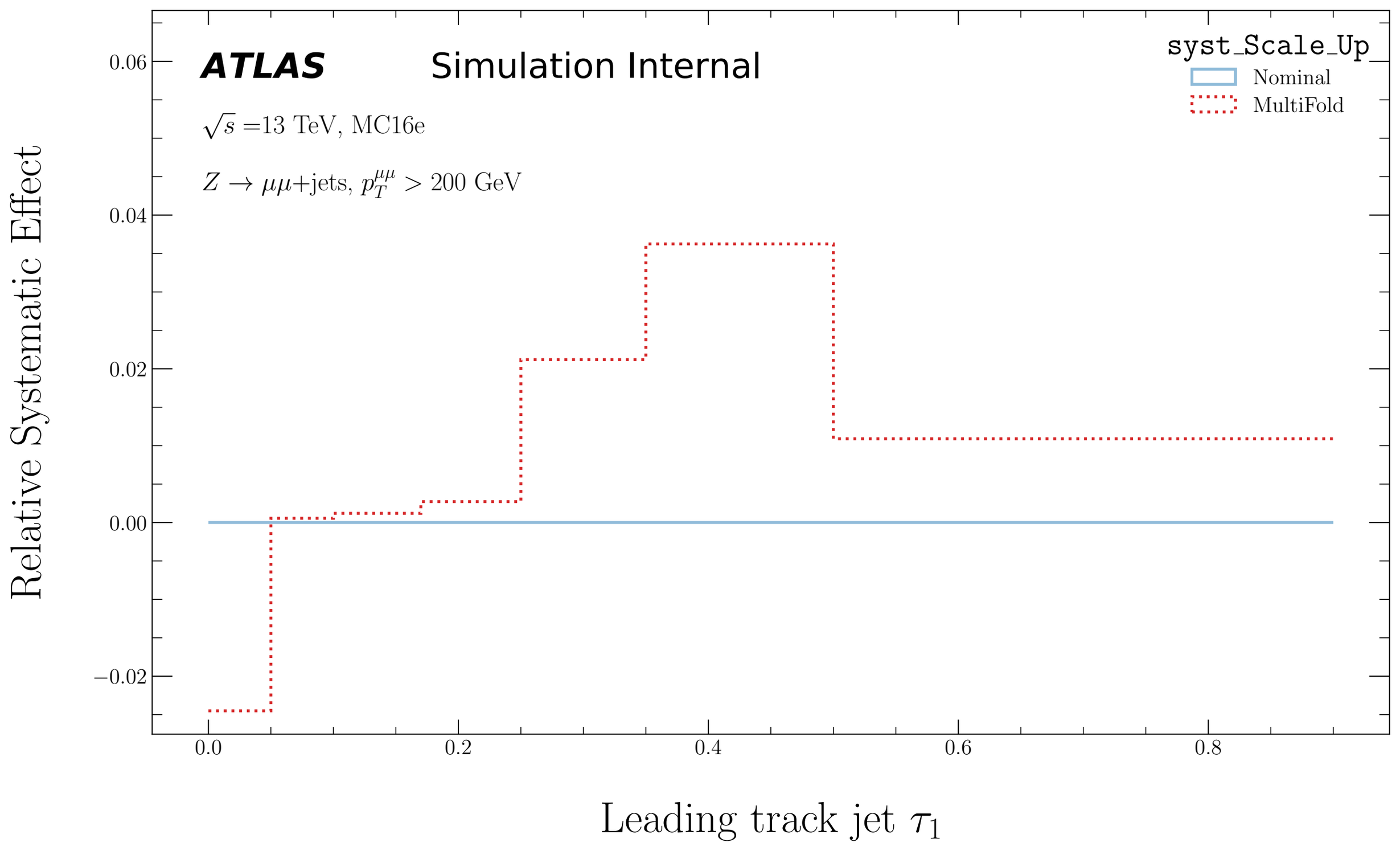

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

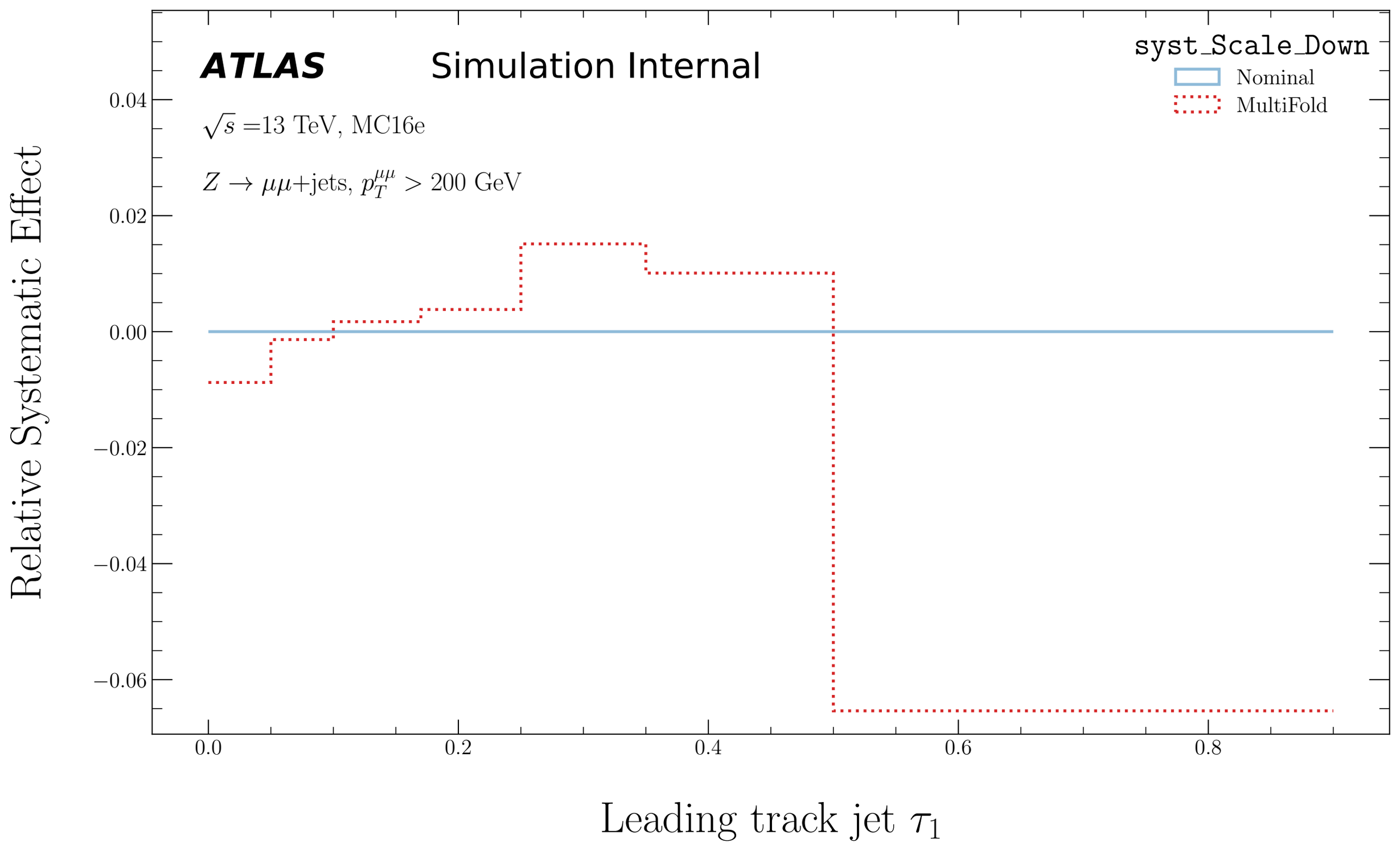

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

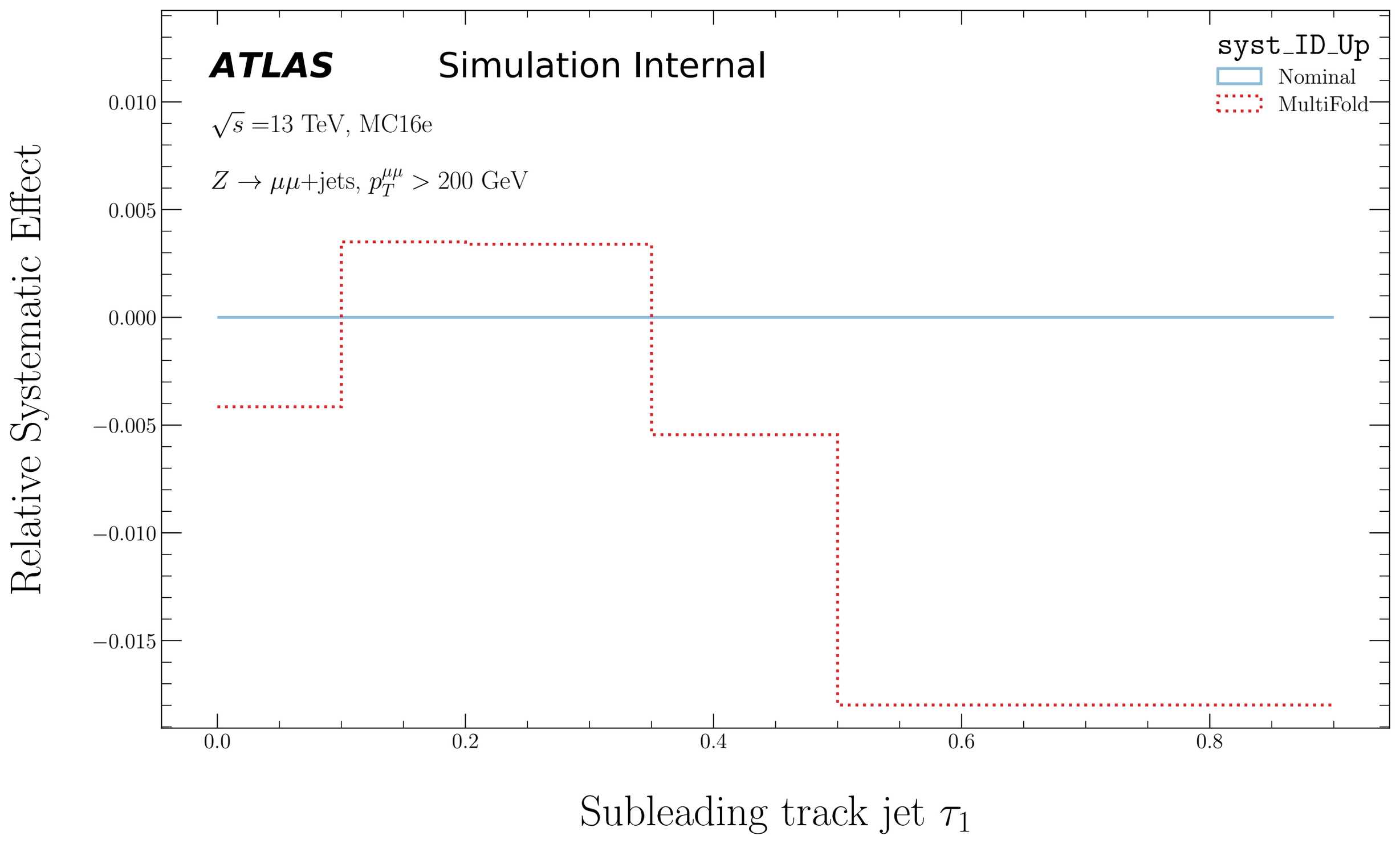

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_1
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0.0
0.2
0.4
0.6
0.8

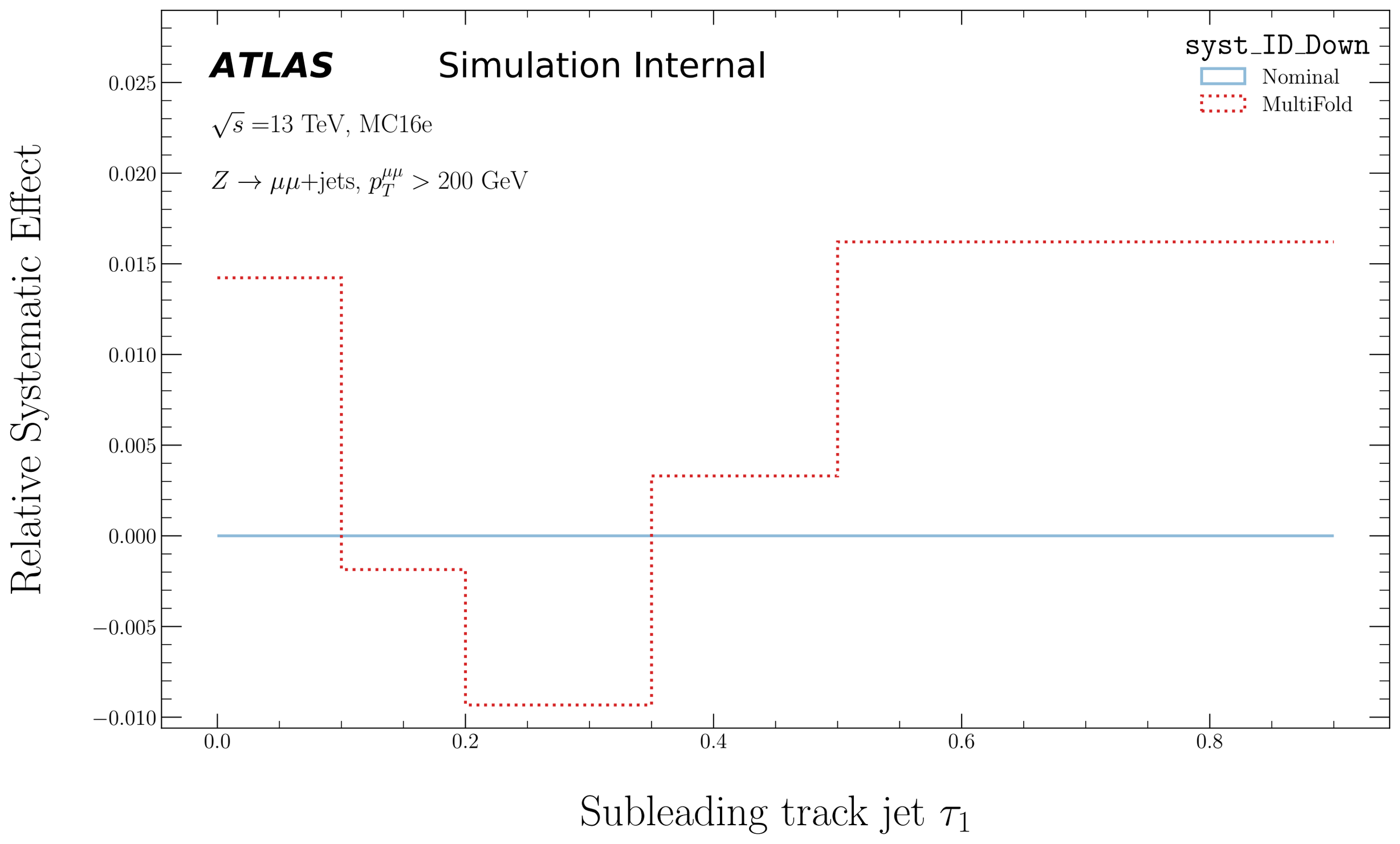

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

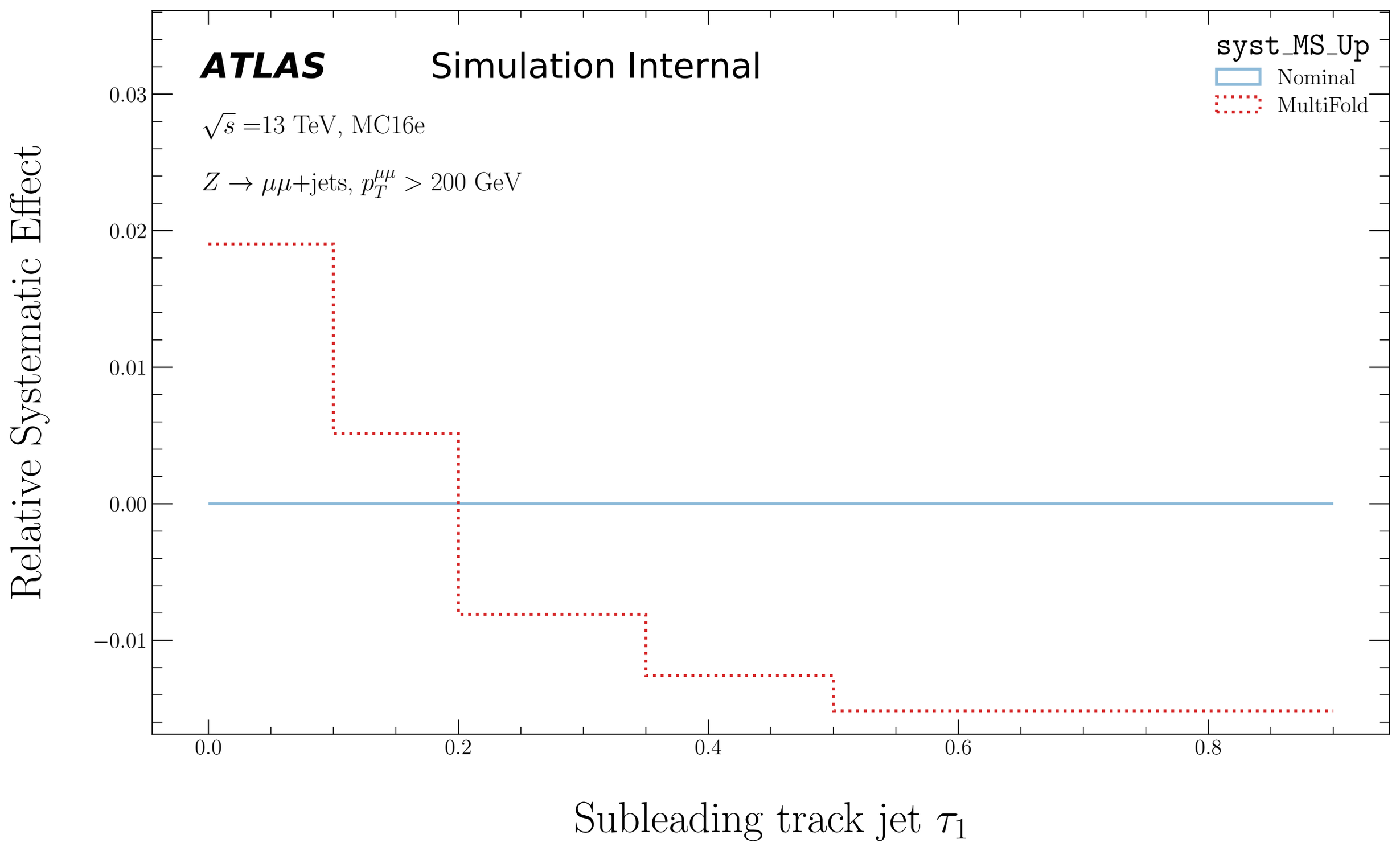

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

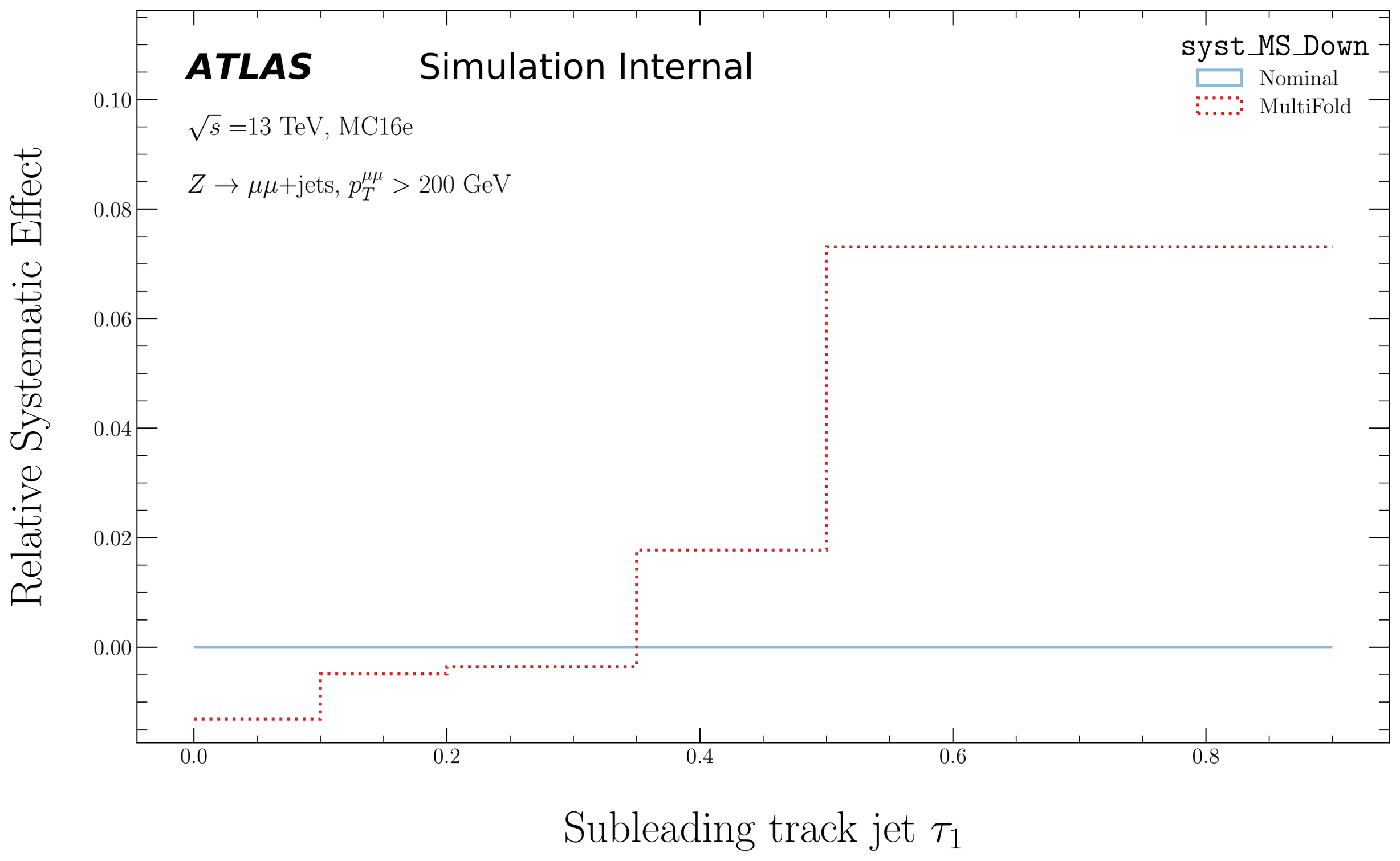

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

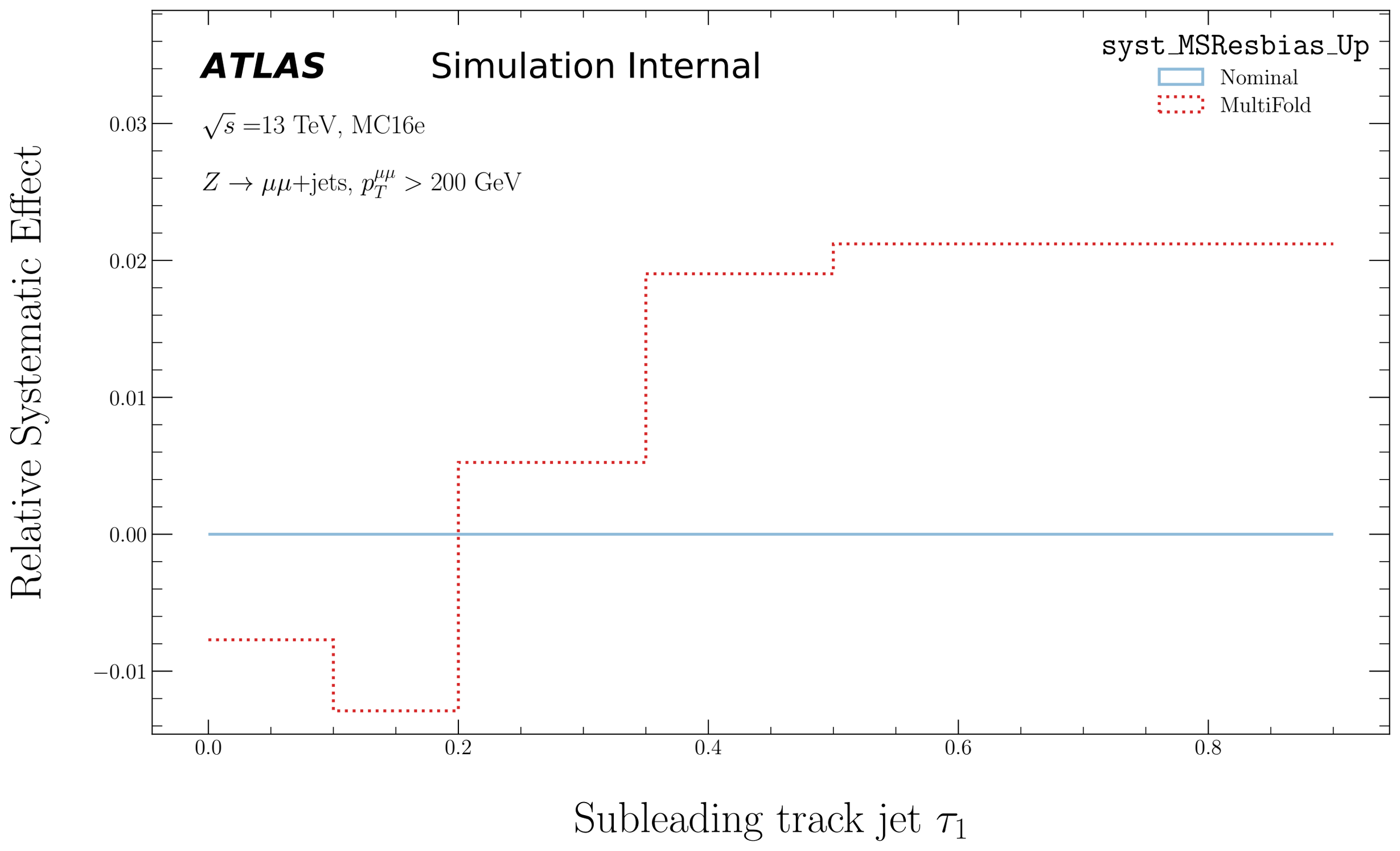

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.2
0.4
0.6
0.8
Leading track jet τ_1

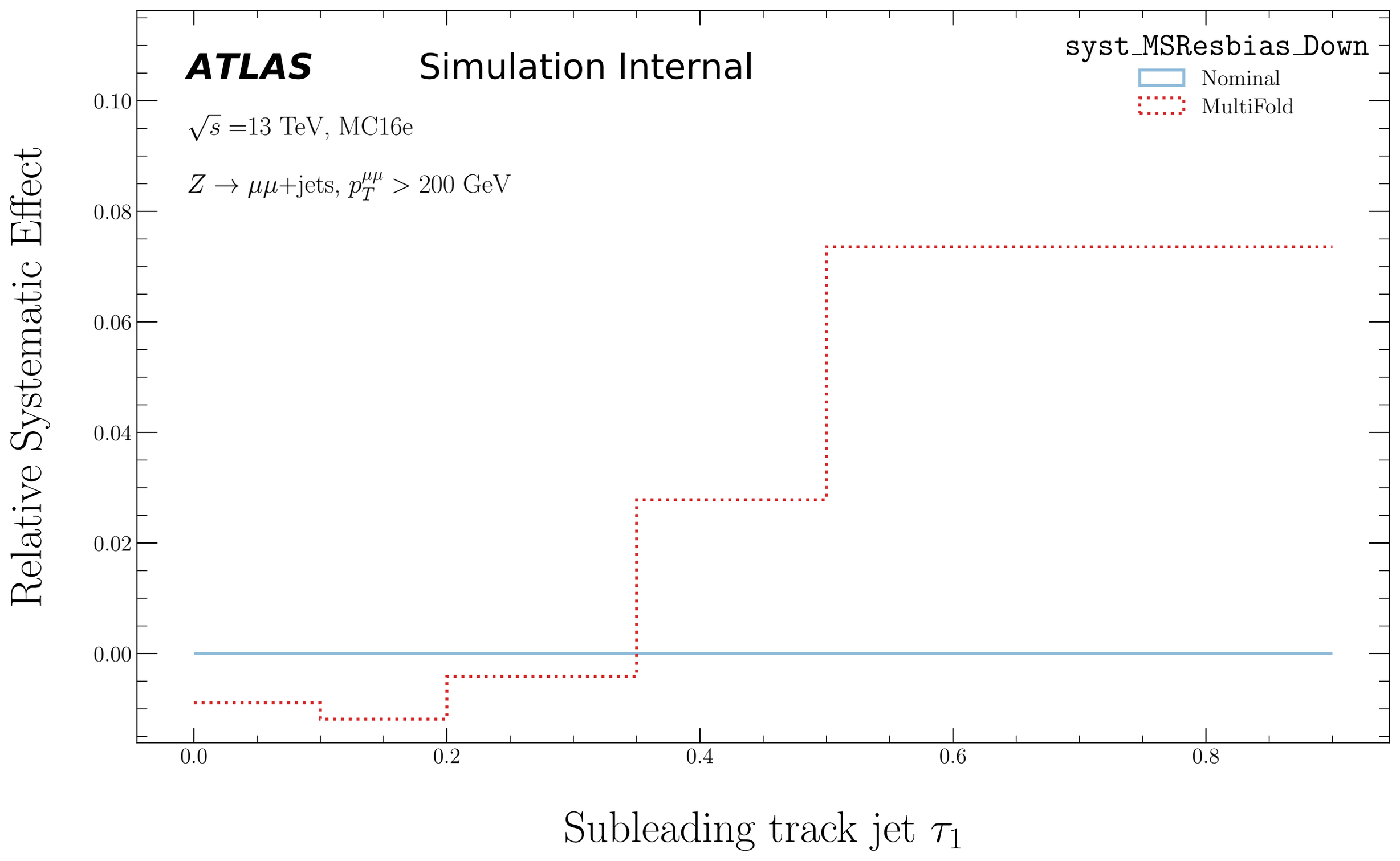

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.010
0.005
0.000
−0.005
−0.010
−0.015
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

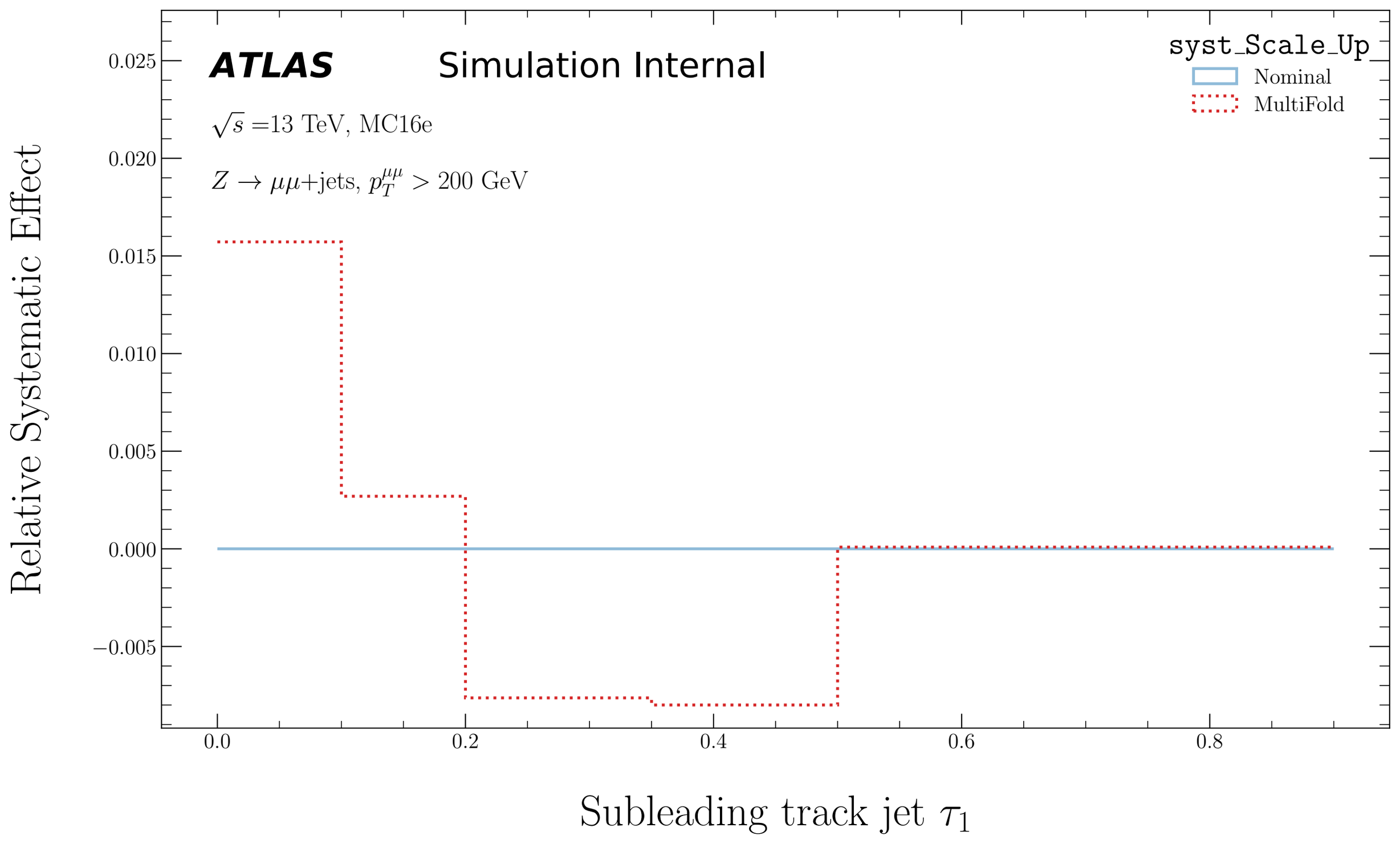

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

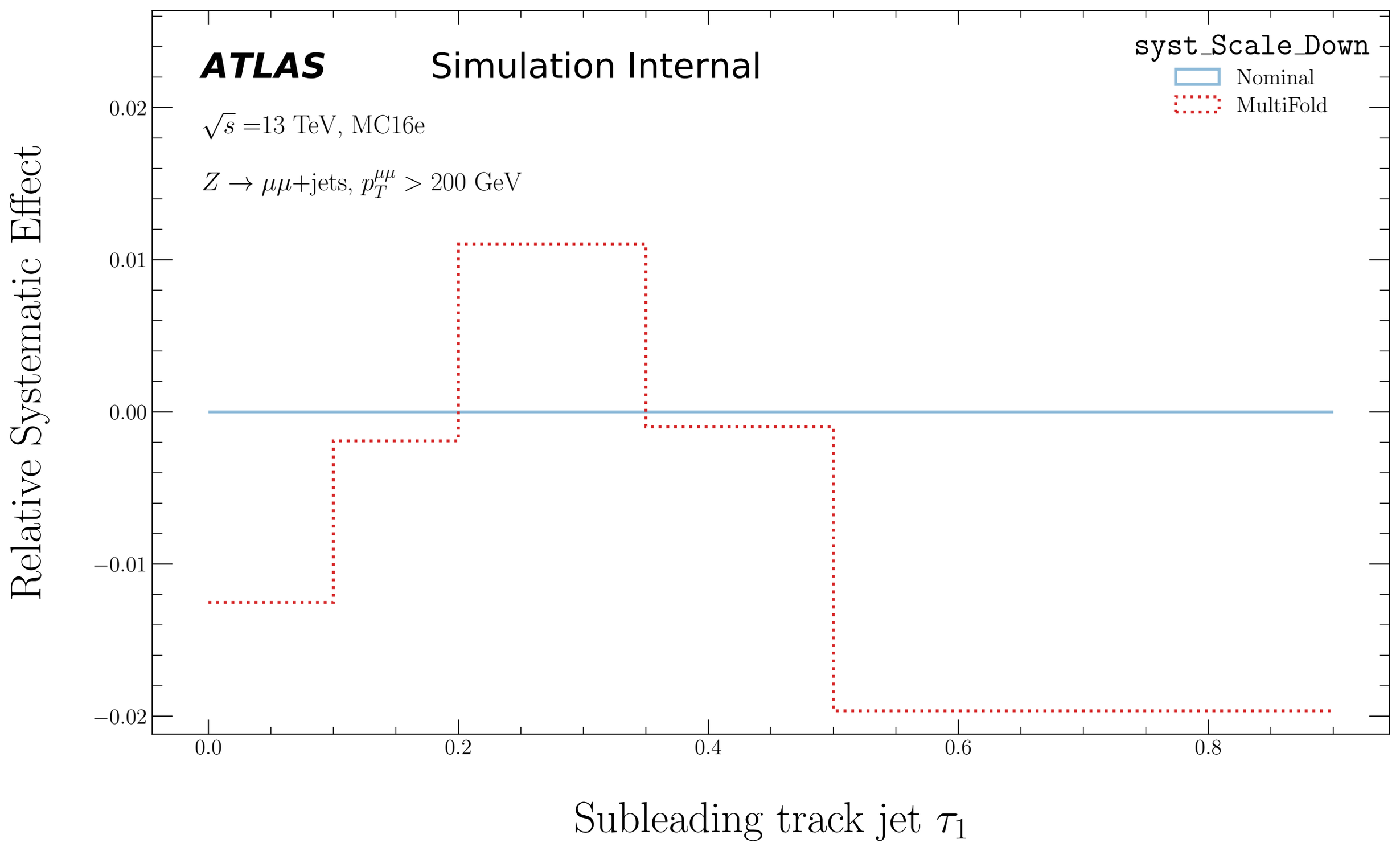

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

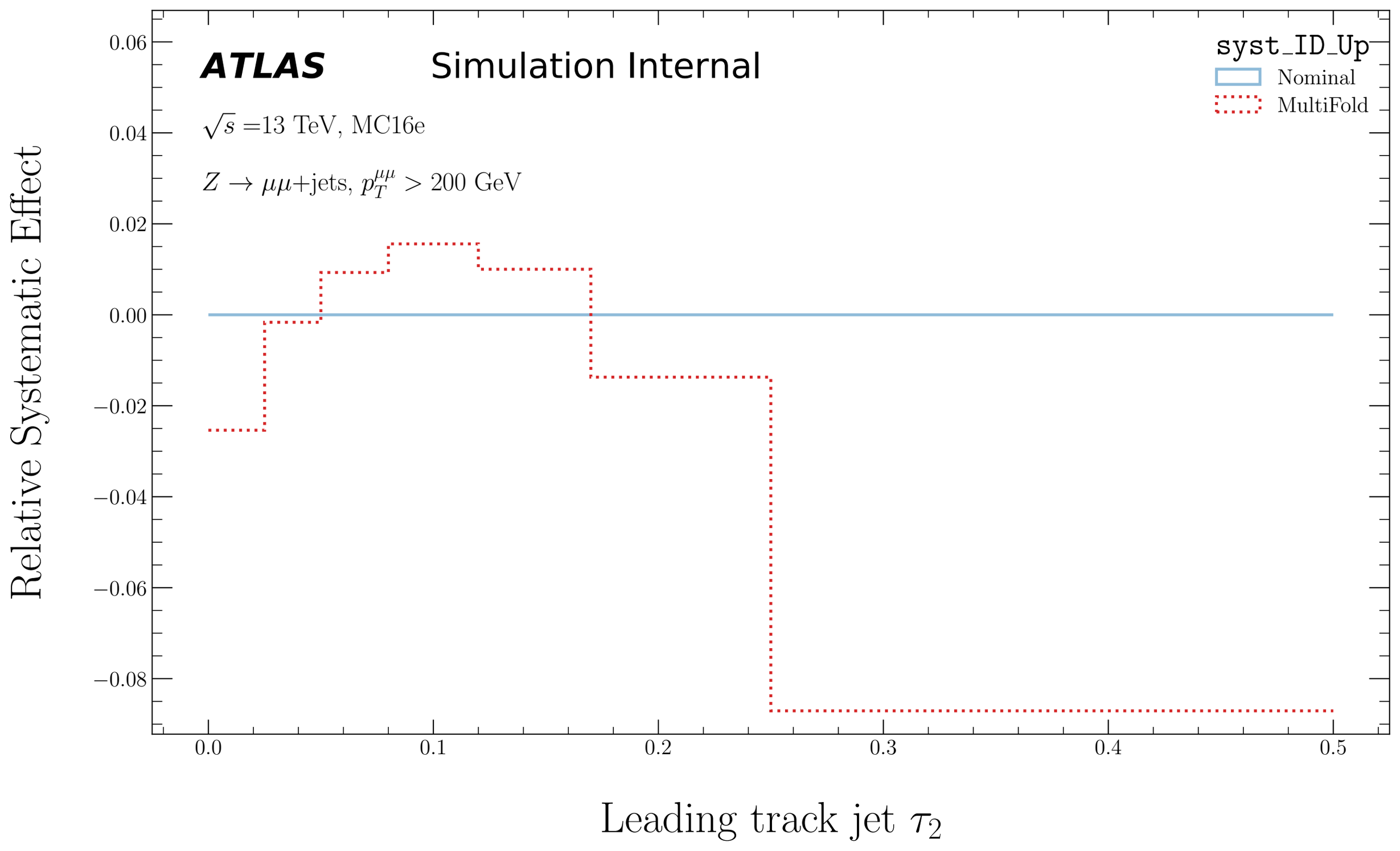

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

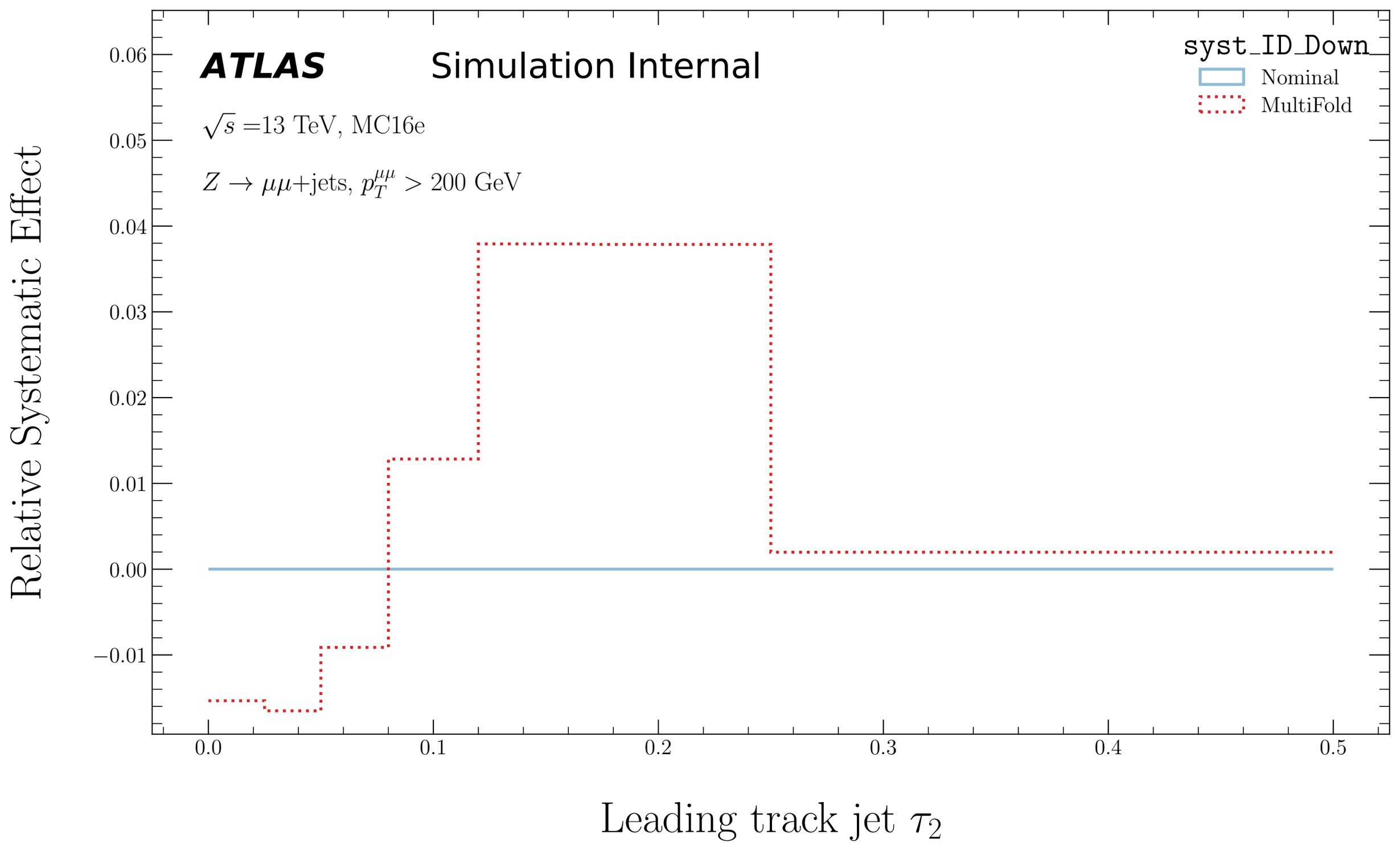

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

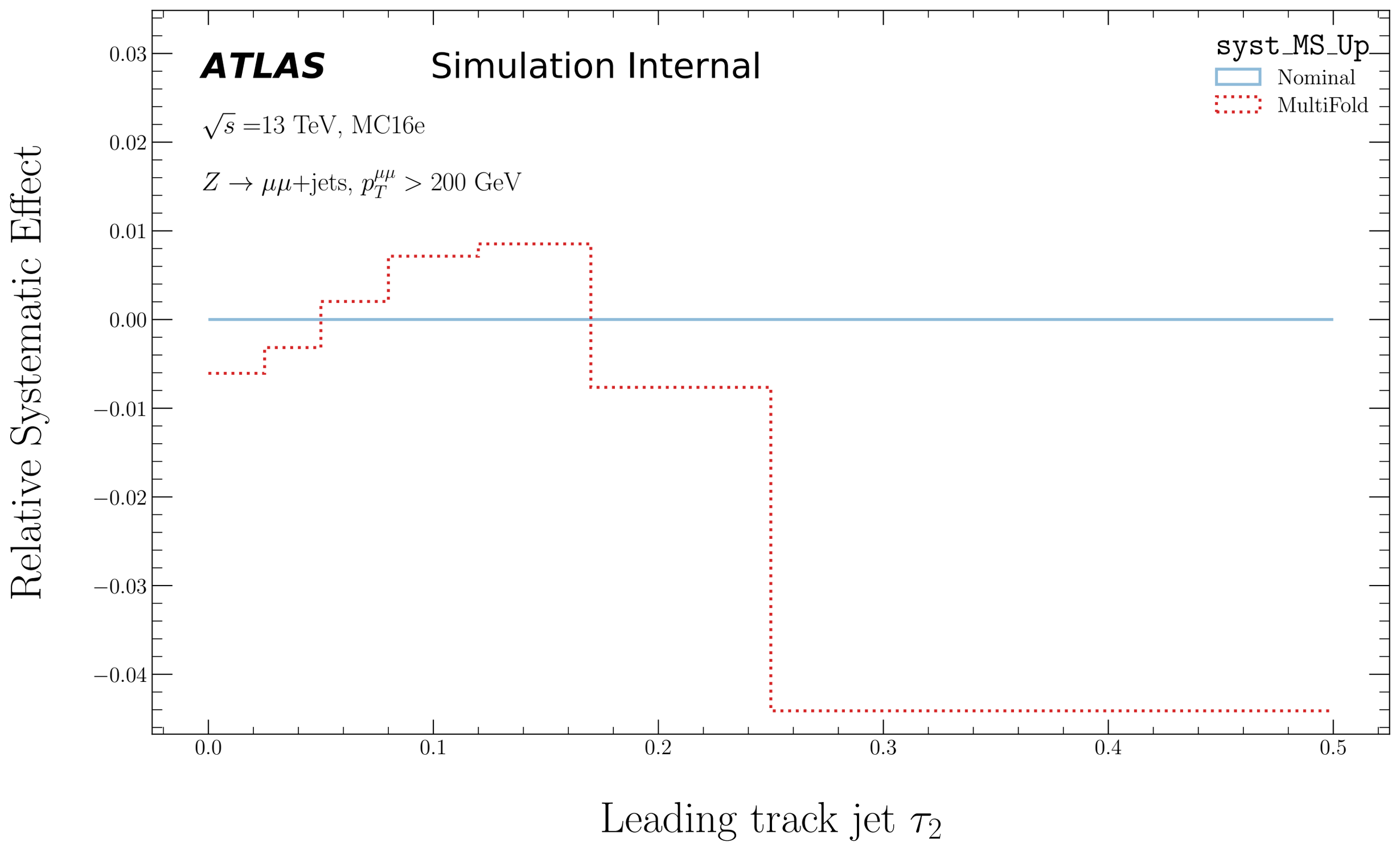

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

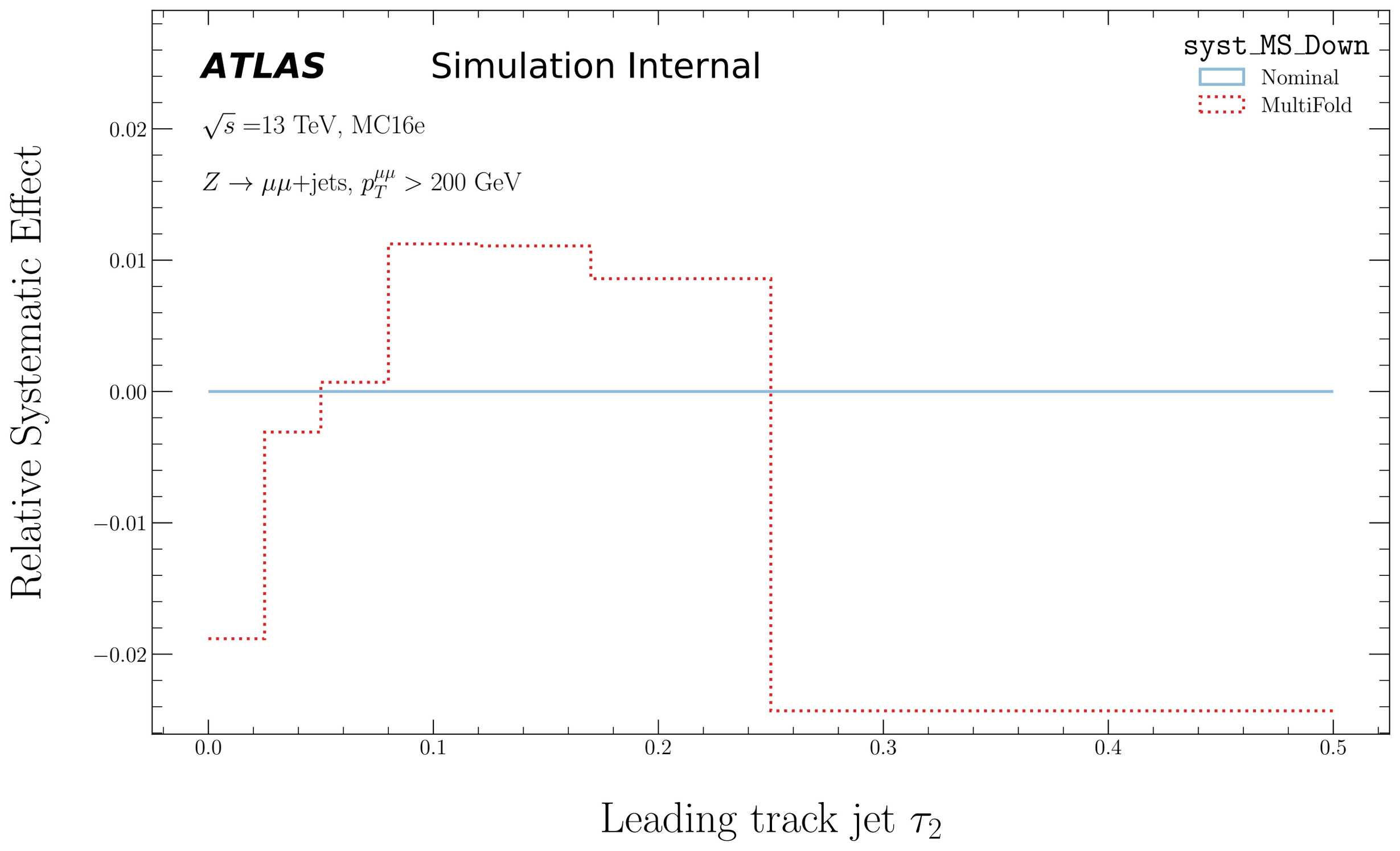

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

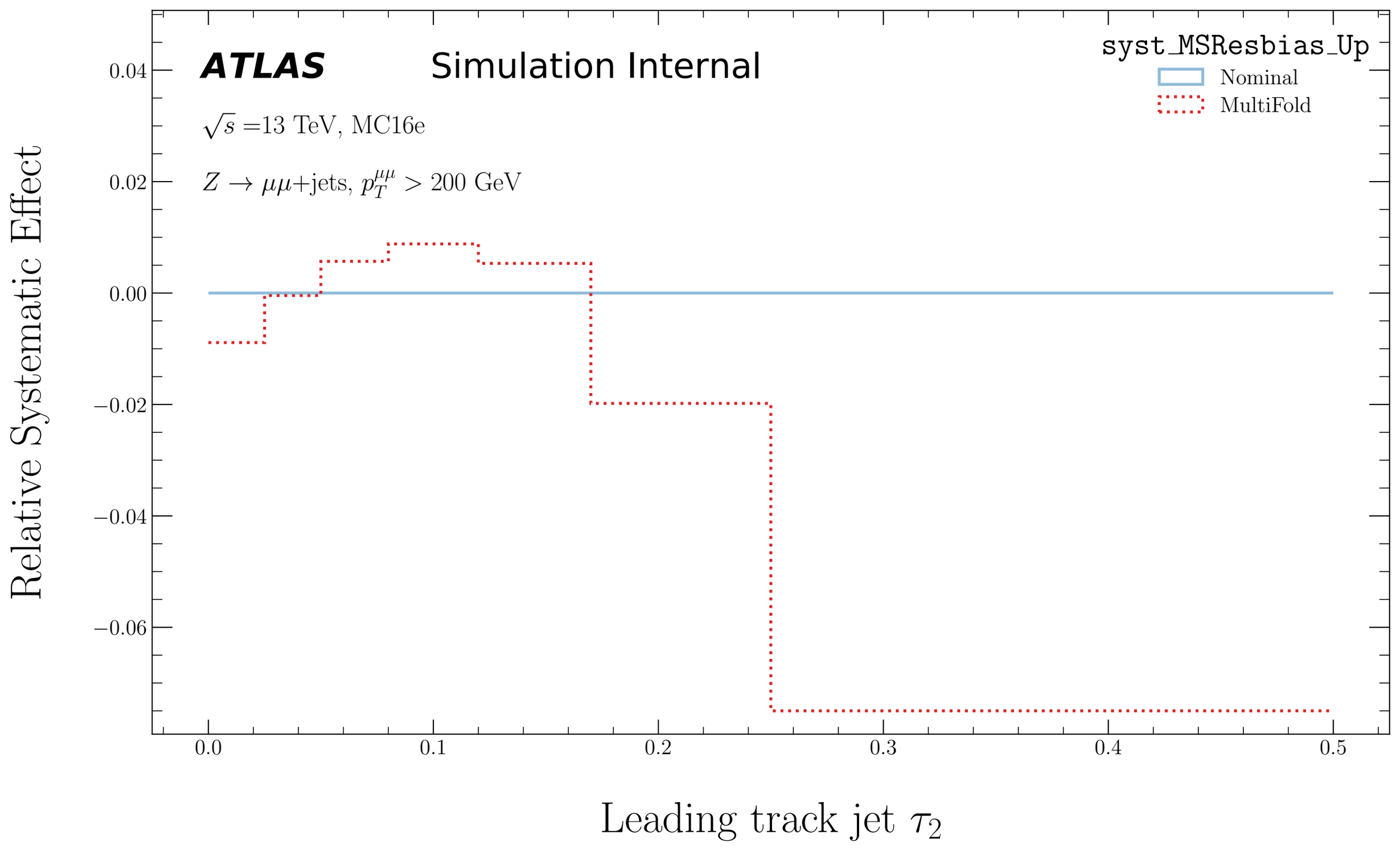

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.02
0.01
0.00
−0.01
−0.02
0.0
0.2
0.4
0.6
0.8
Subleading track jet τ_1

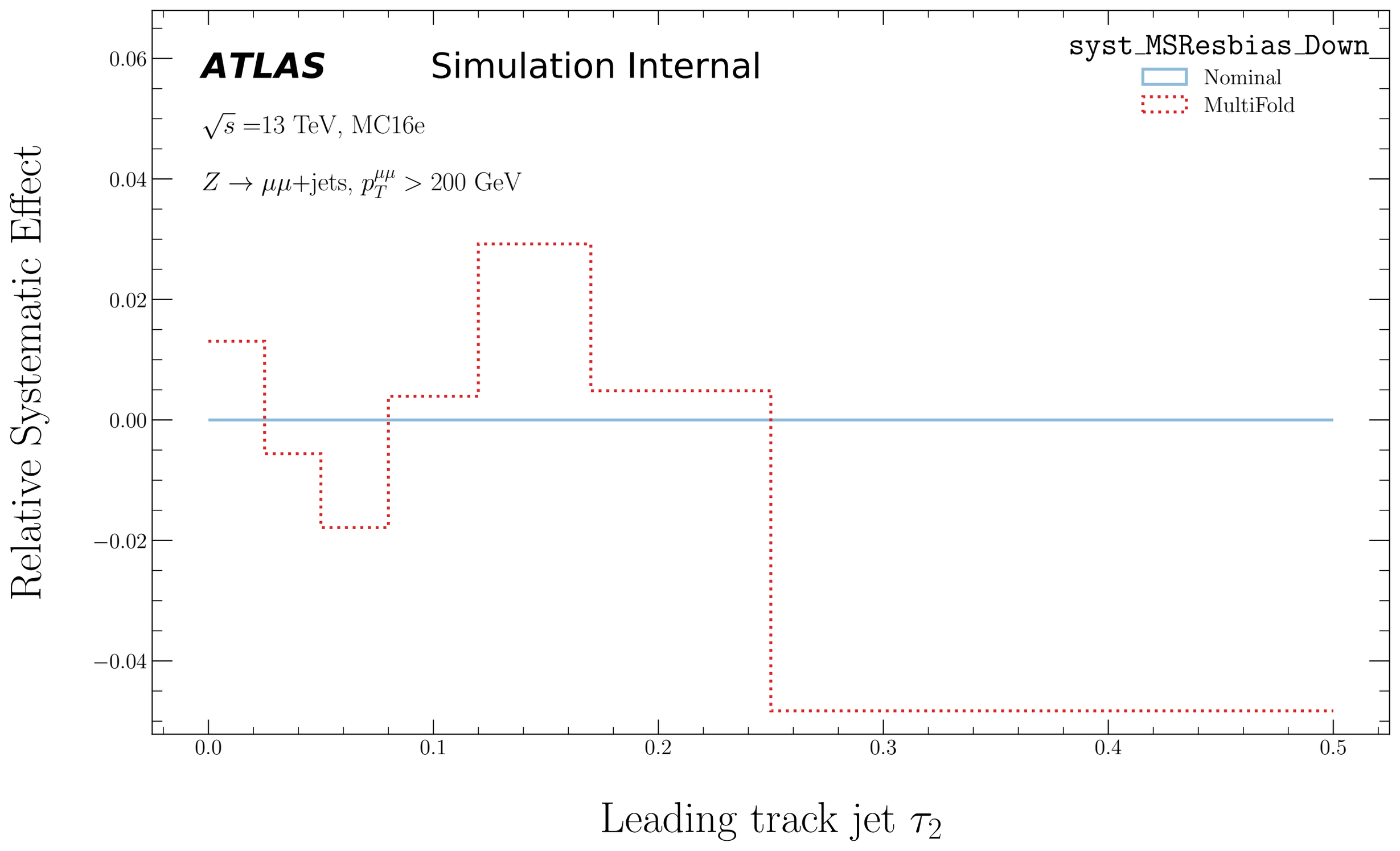

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0.0
0.1
0.2
0.3
0.4
0.5

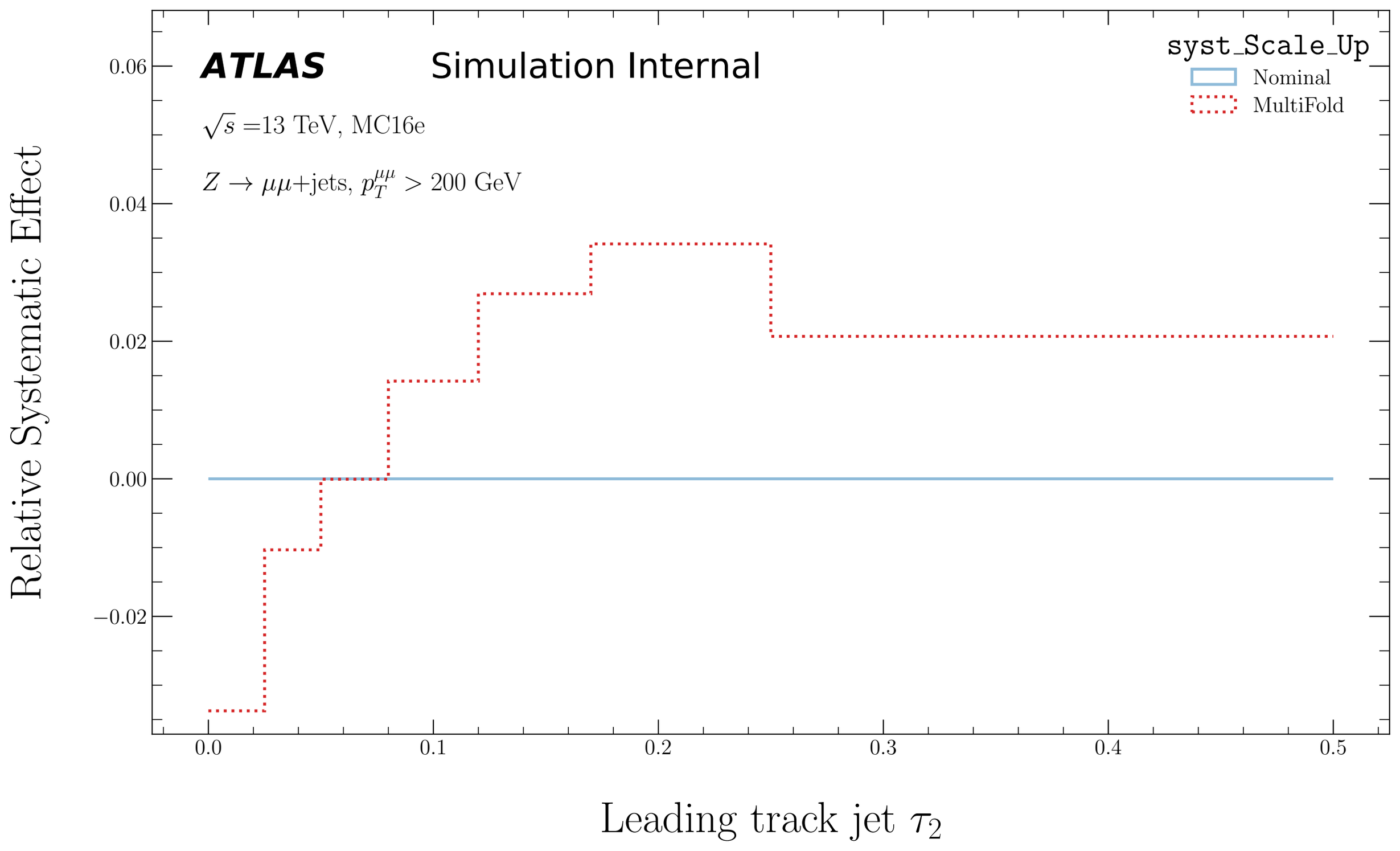

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0.0
0.1
0.2
0.3
0.4
0.5

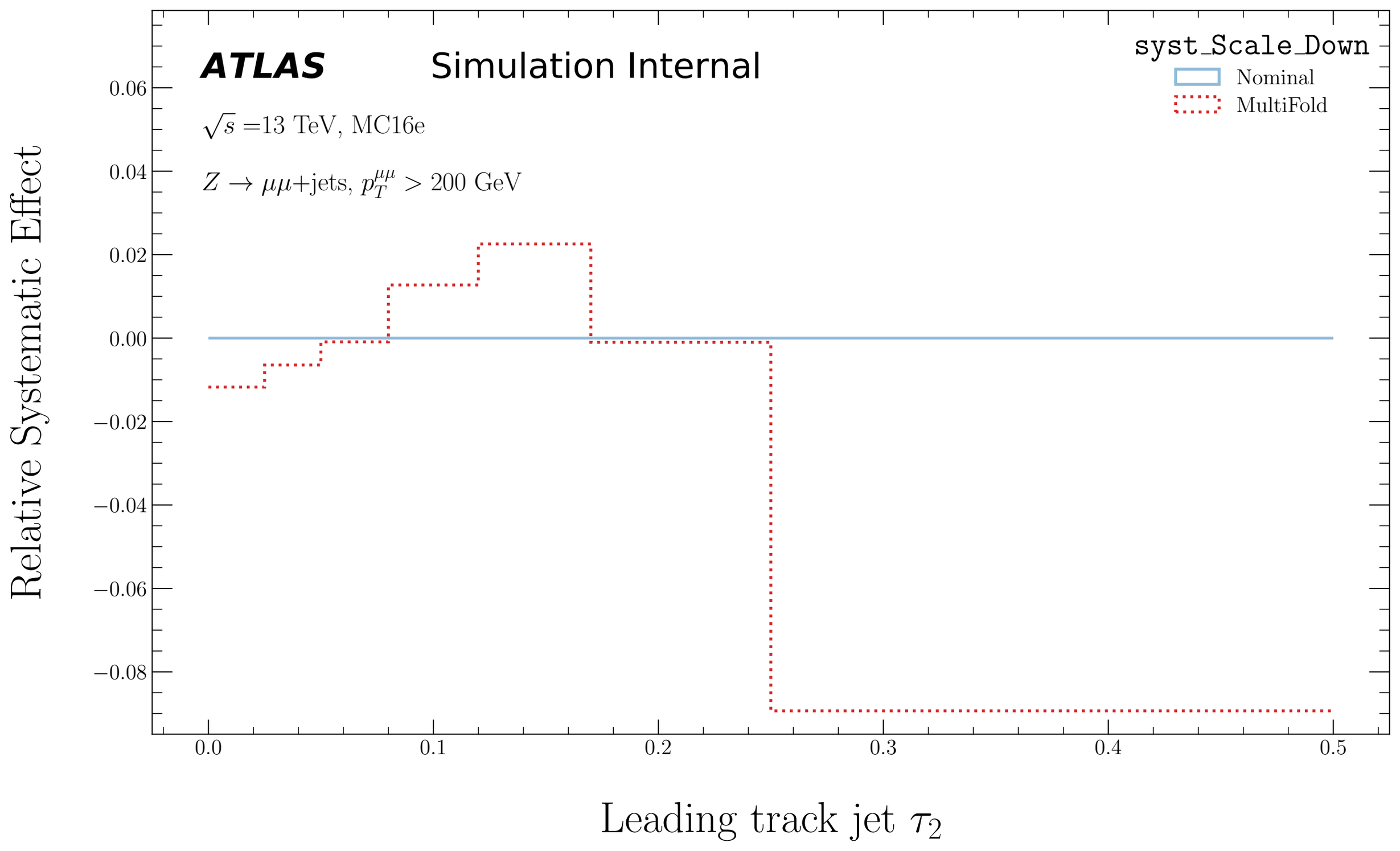

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.0
0.1
0.2
0.3
0.4
0.5

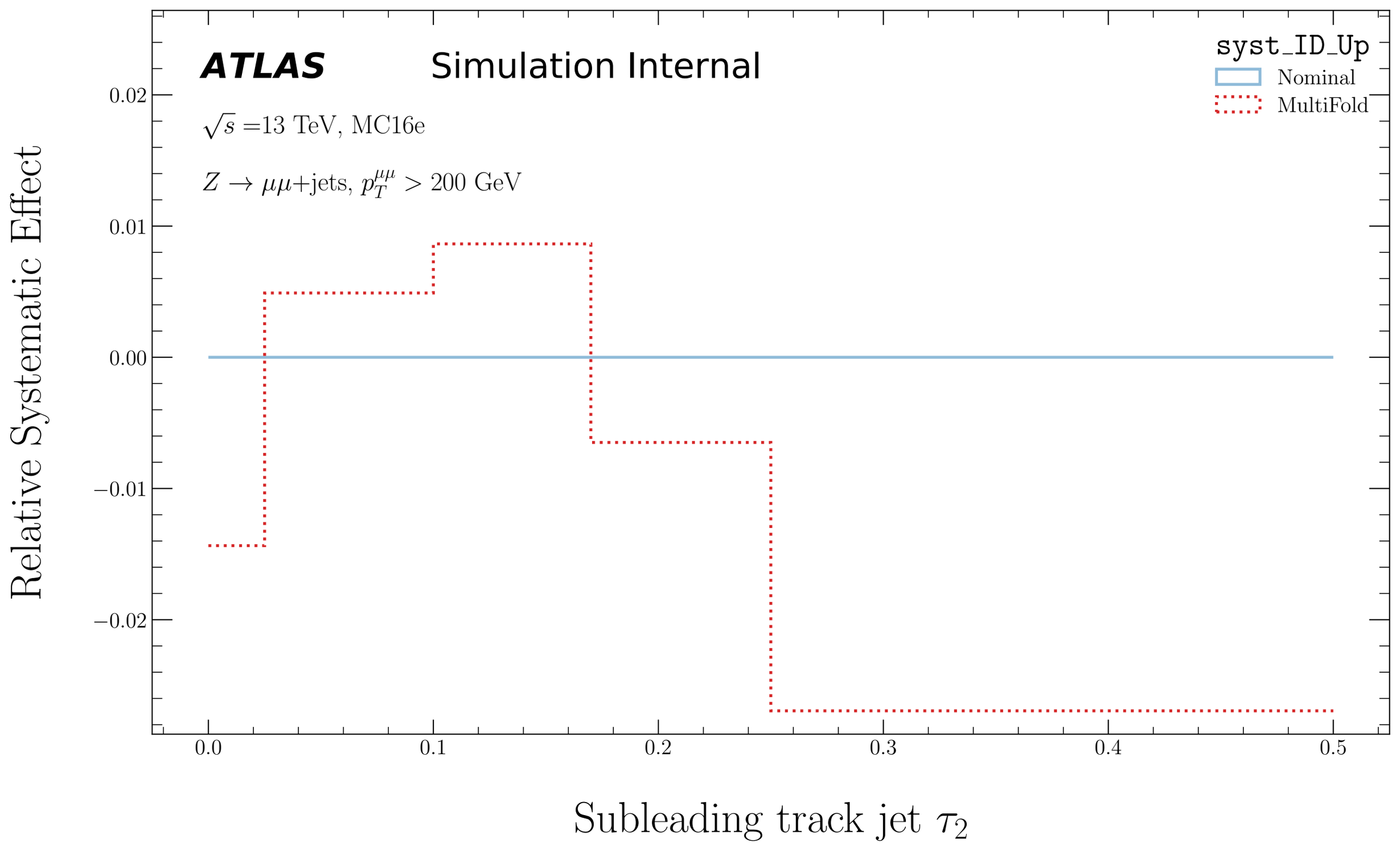

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.02
0.01
0.00
−0.01
−0.02
0.0
0.1
0.2
0.3
0.4
0.5
Leading track jet τ_2

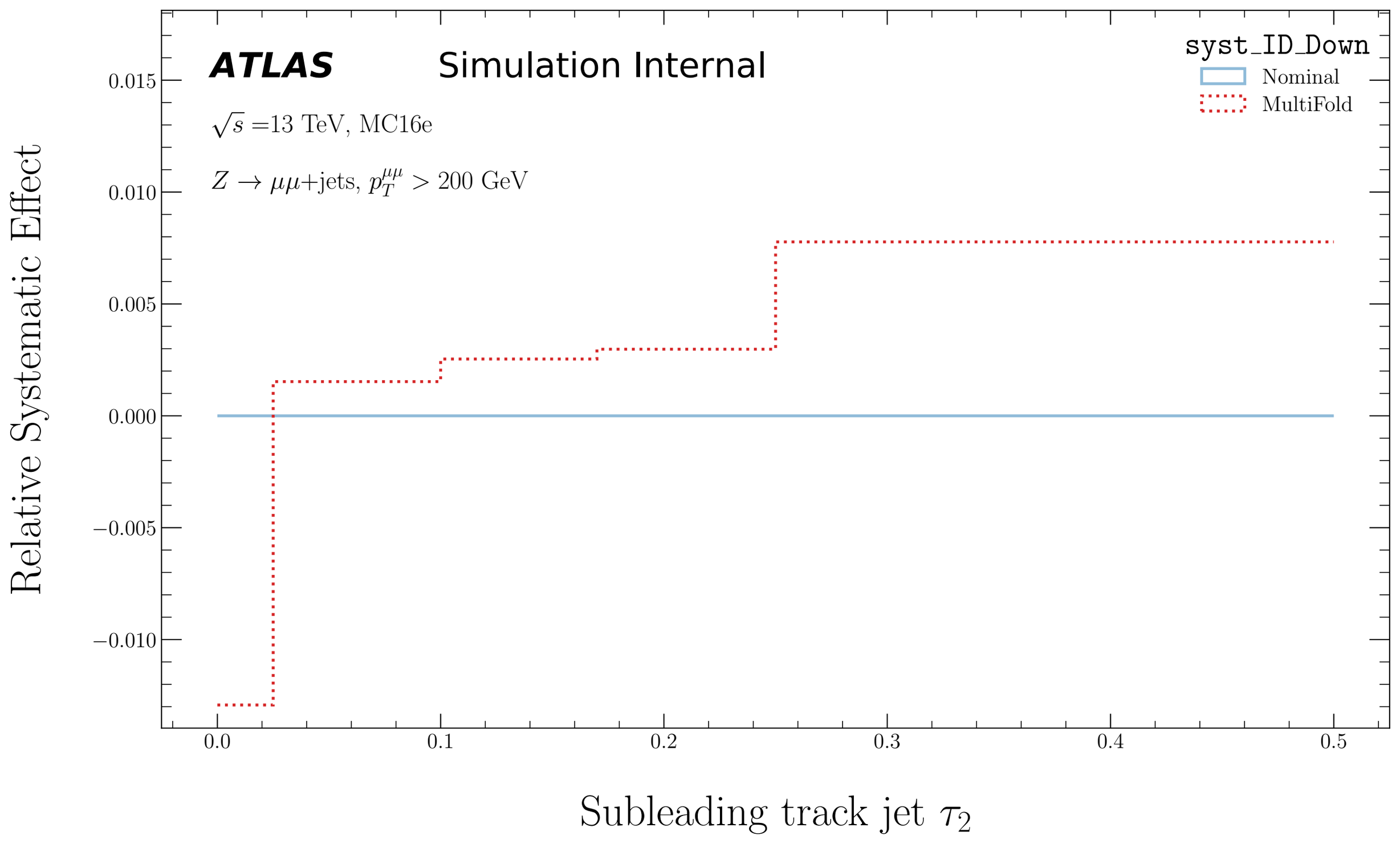

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.1
0.2
0.3
0.4
0.5

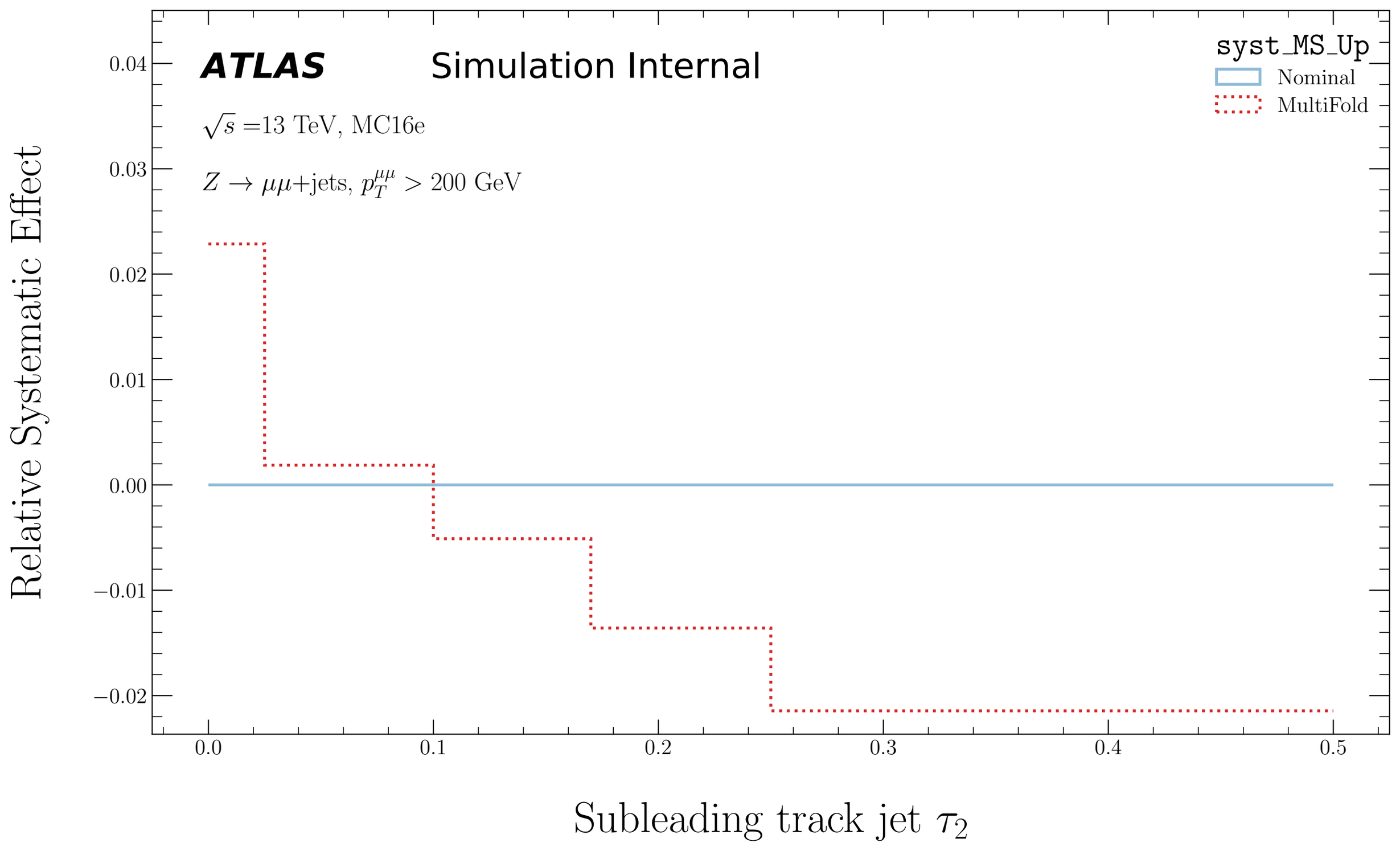

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.06
0.04
0.02
0.00
−0.02
−0.04
0.0
0.1
0.2
0.3
0.4
0.5

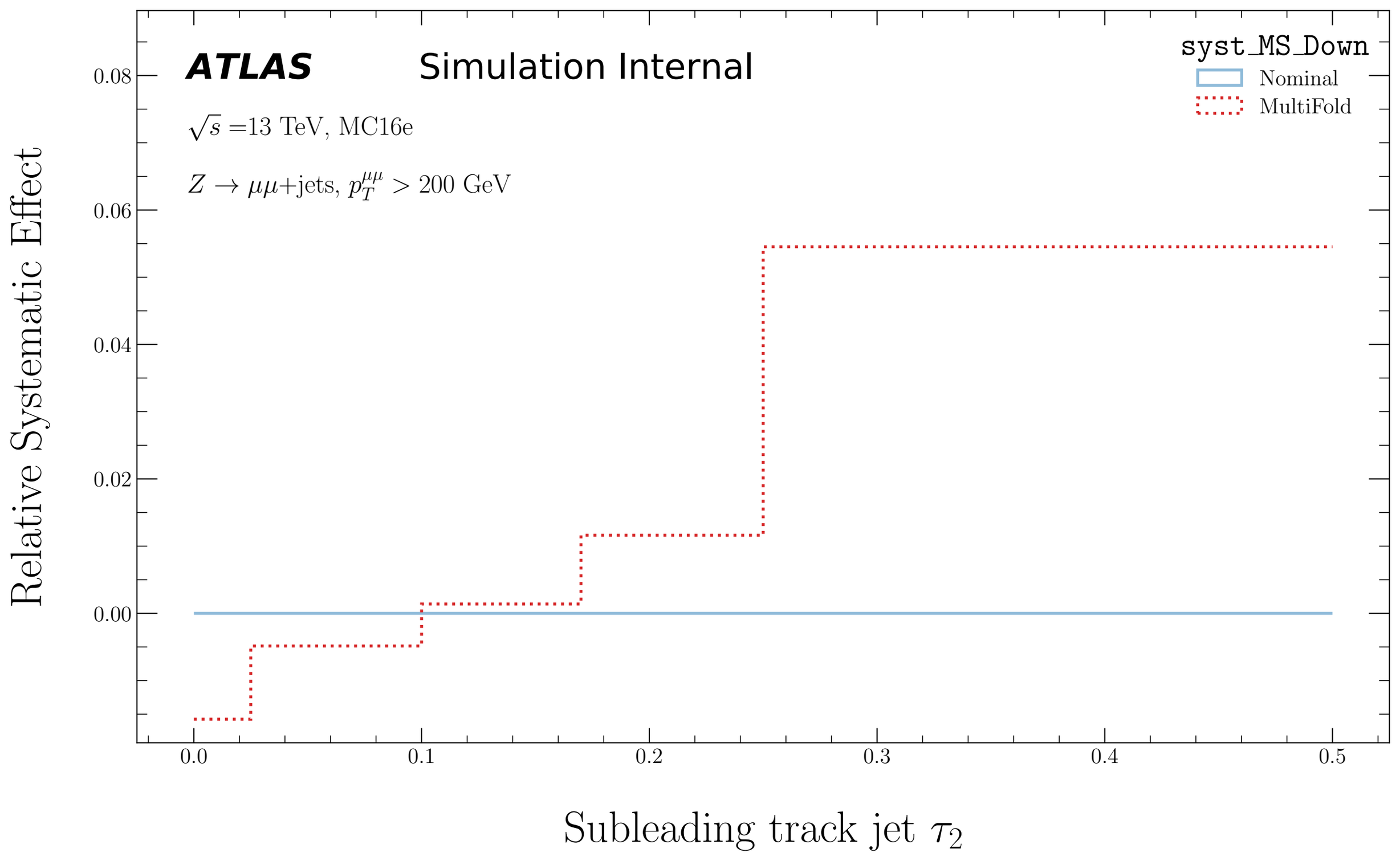

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
0.0
0.1
0.2
0.3
0.4
0.5
Leading track jet τ_2

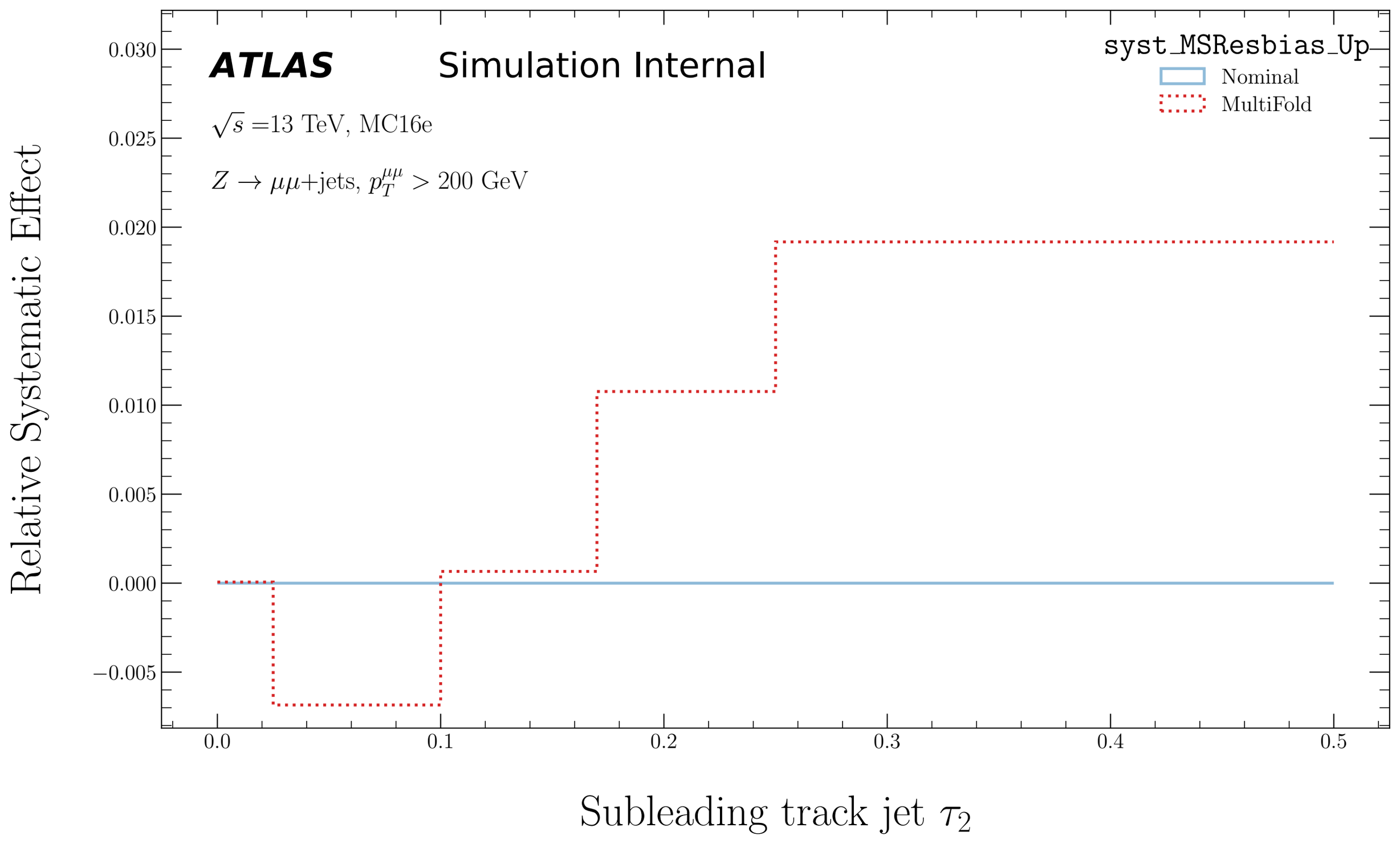

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_2
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0.0
0.1
0.2
0.3
0.4
0.5

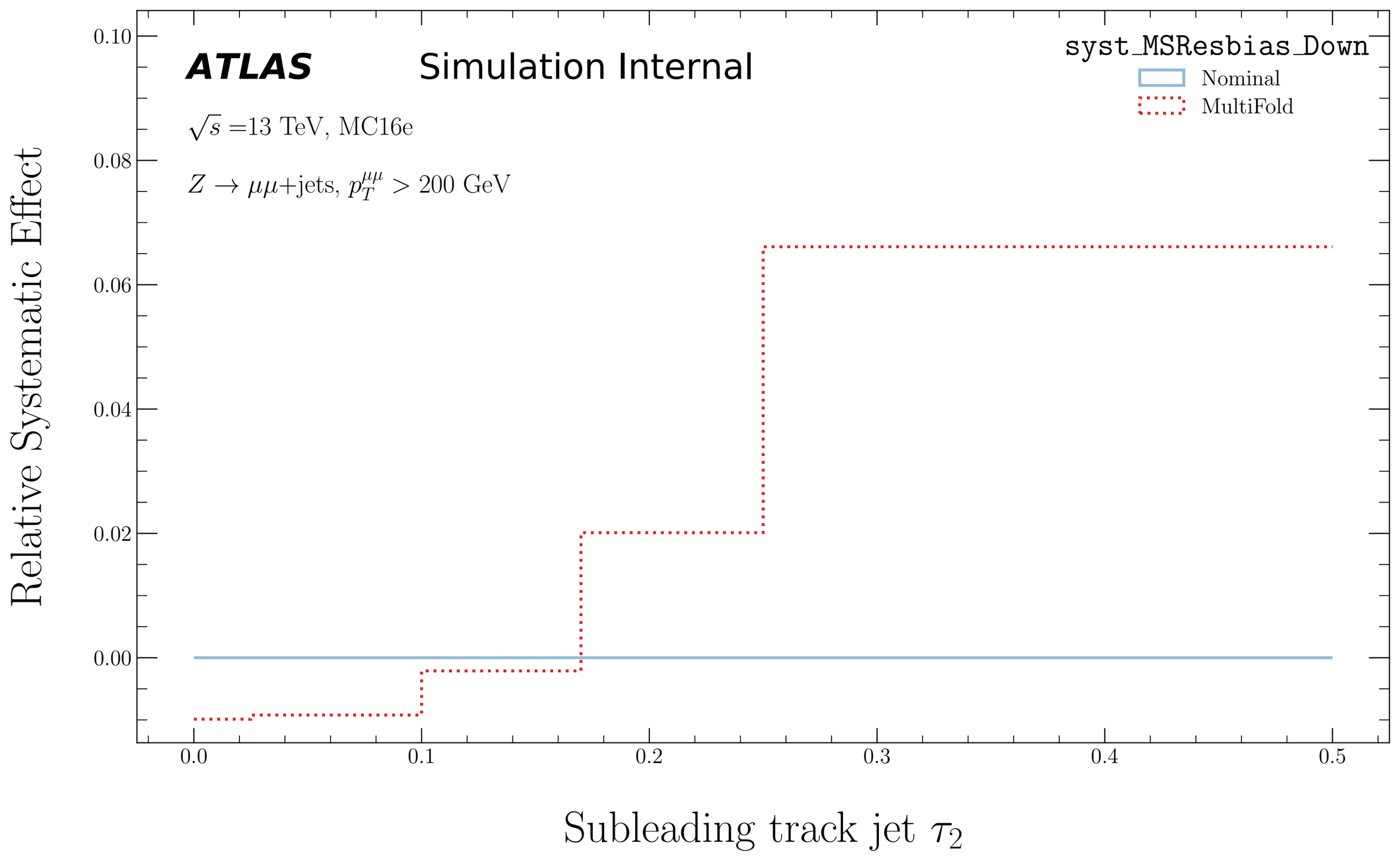

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.02
0.01
0.00
−0.01
−0.02
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

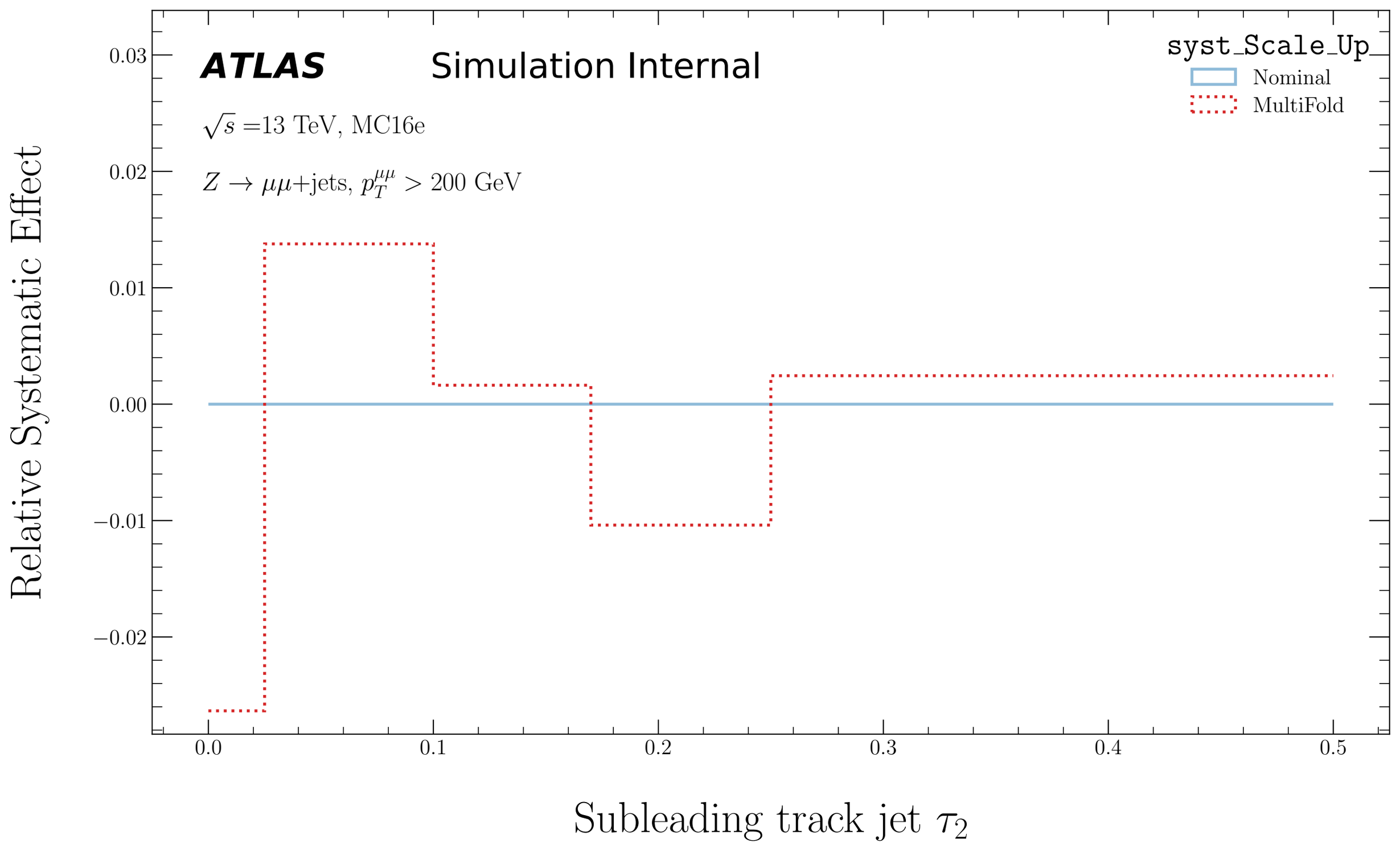

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.015
0.010
0.005
0.000
−0.005
−0.010
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

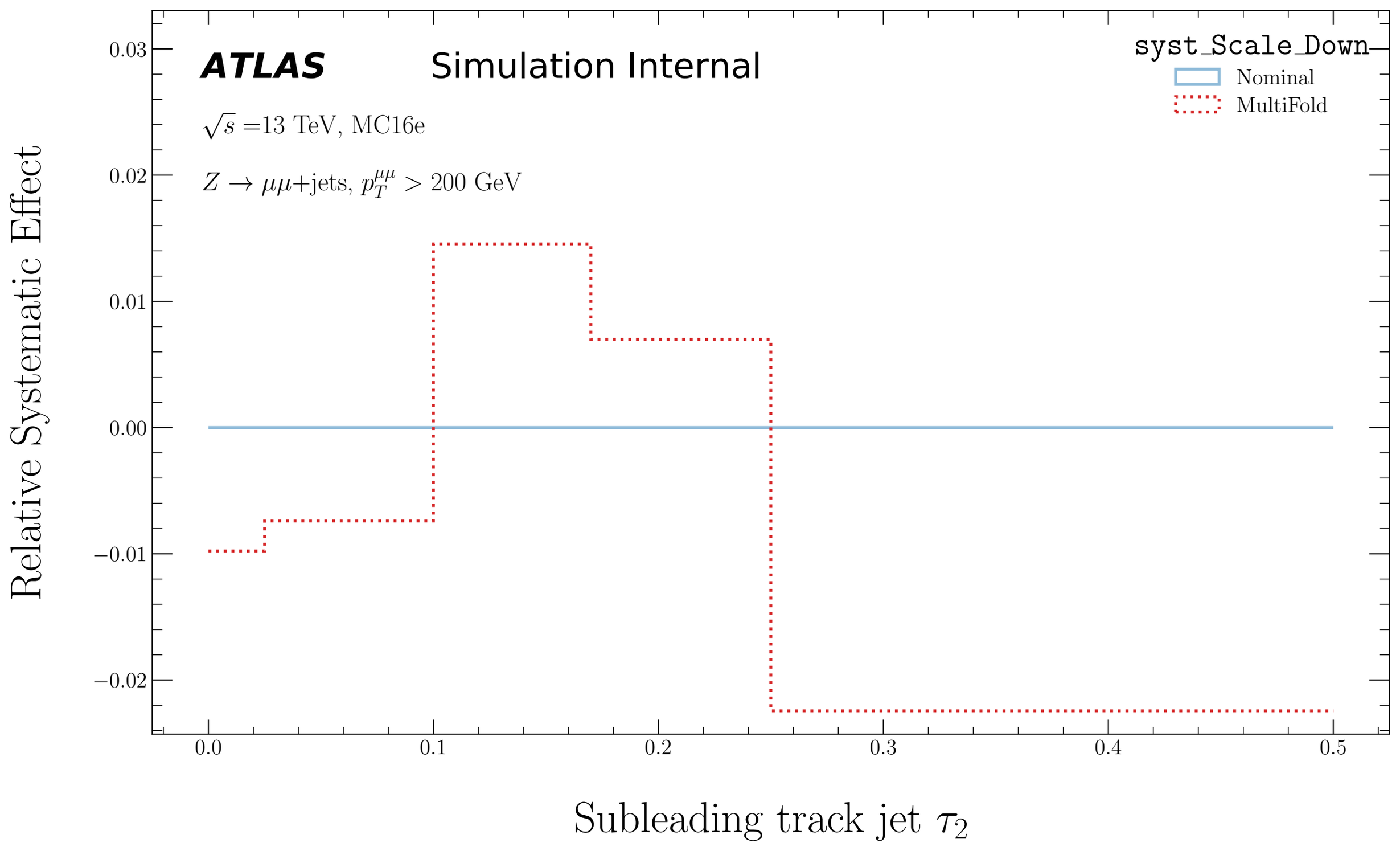

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_2
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
0.0
0.1
0.2
0.3
0.4
0.5

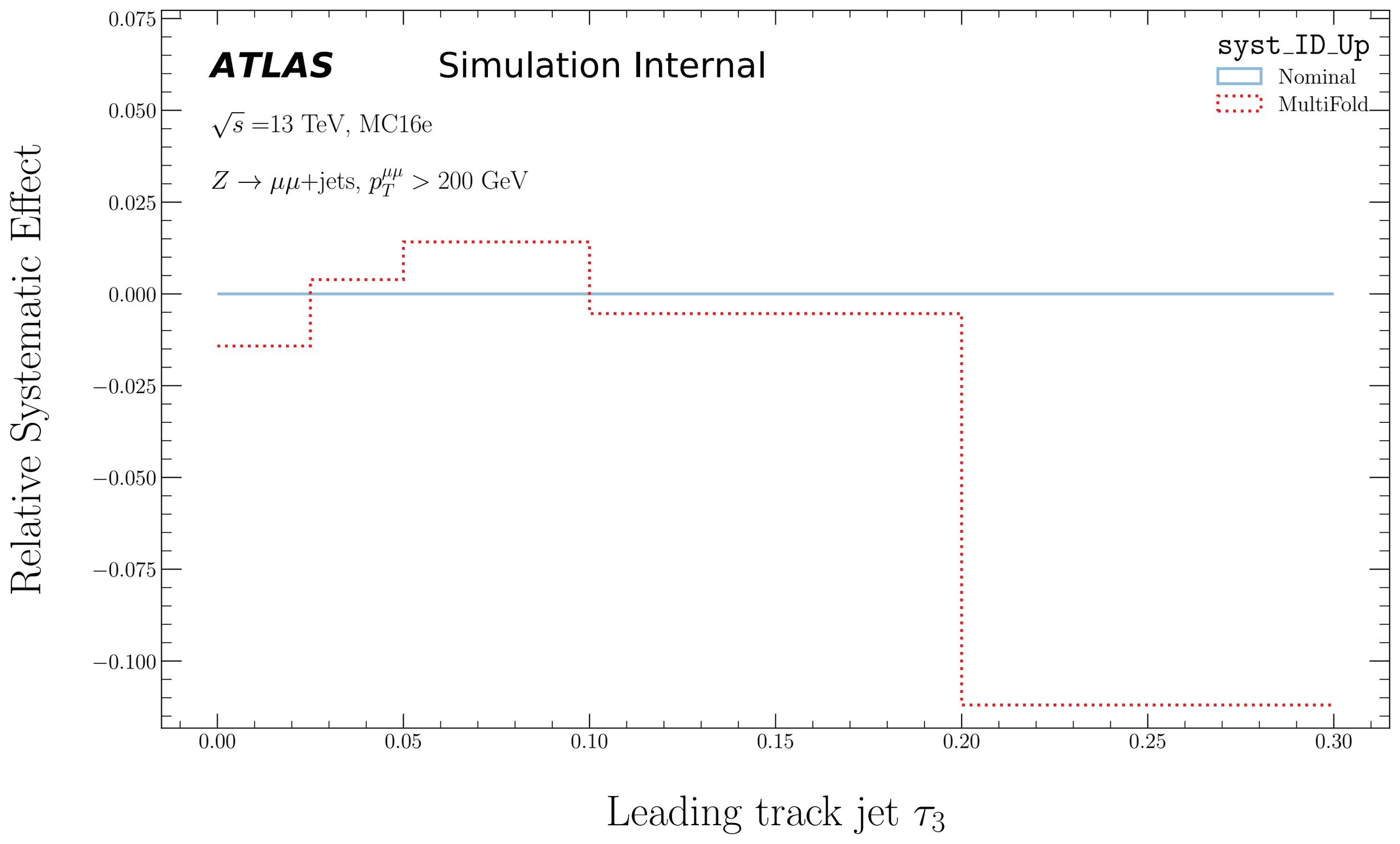

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

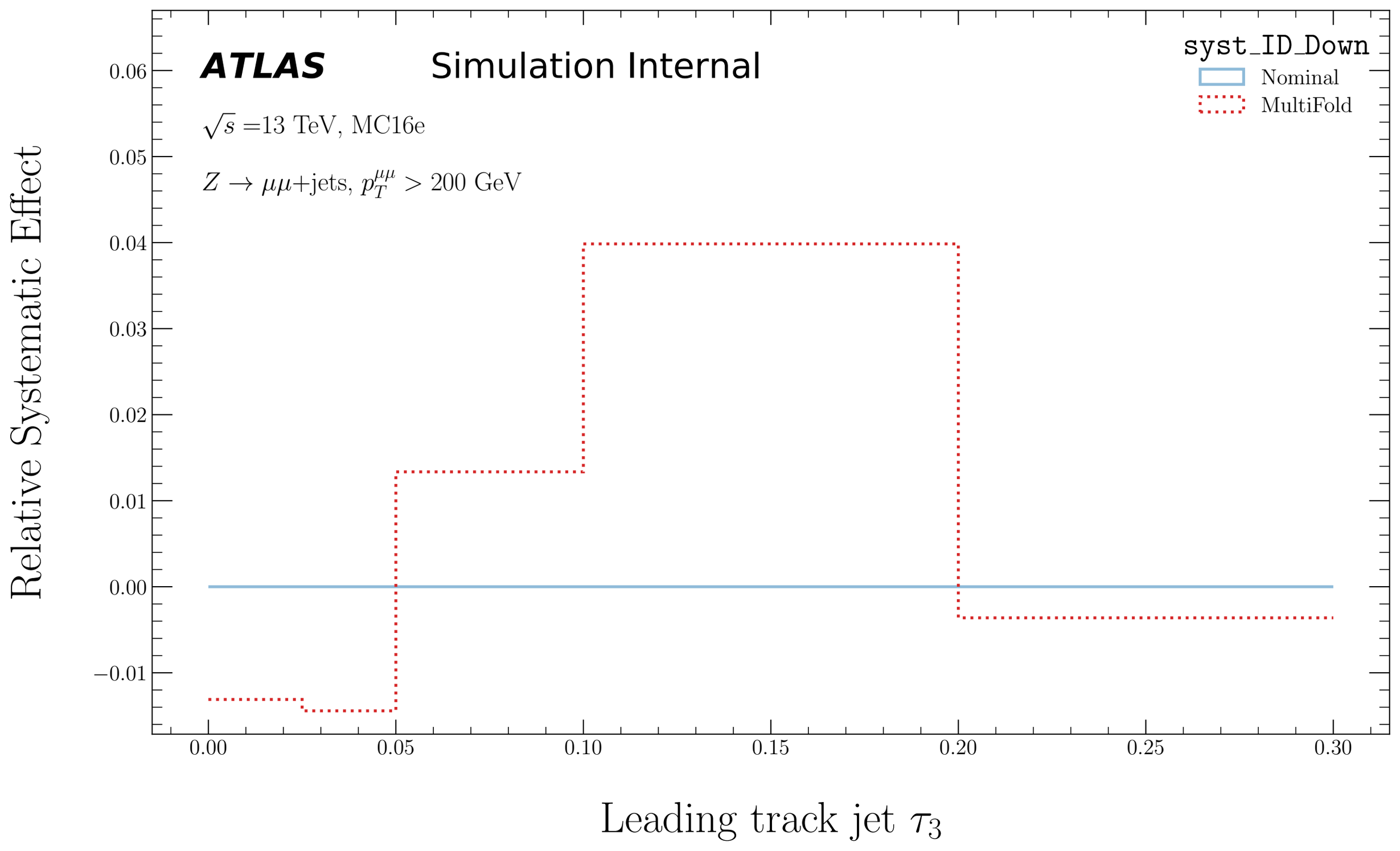

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_2
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
0.0
0.1
0.2
0.3
0.4
0.5

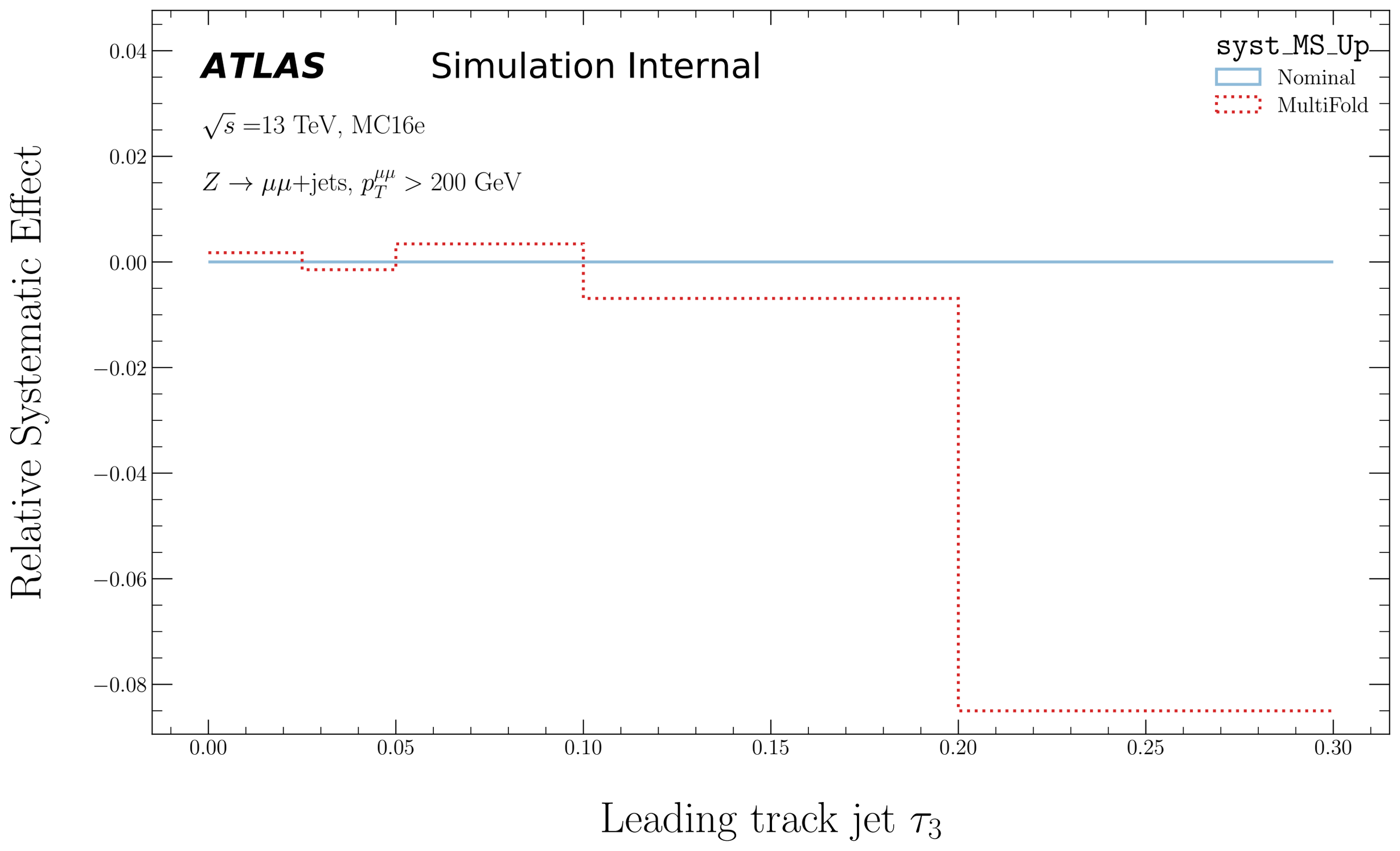

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

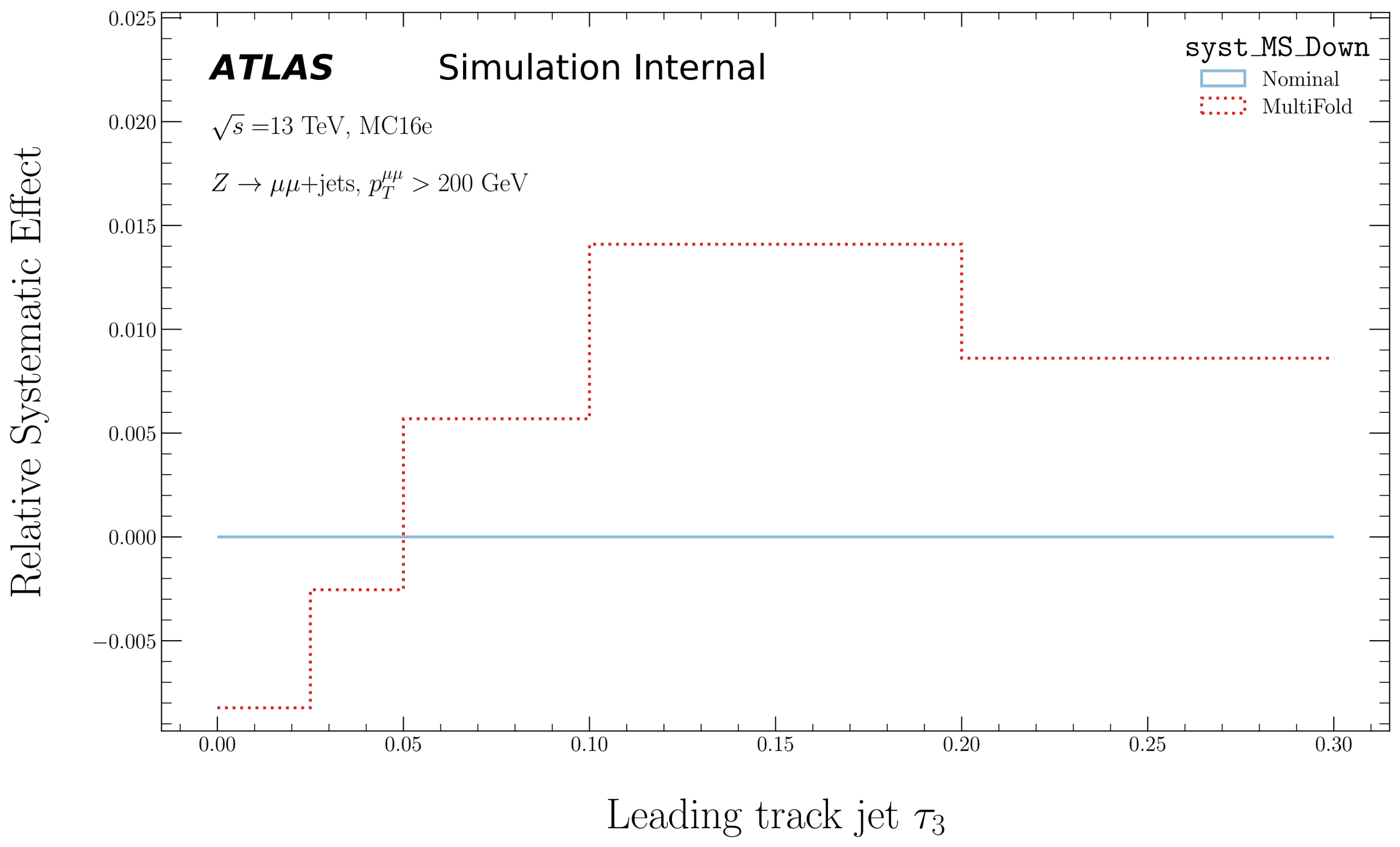

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−0.02
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

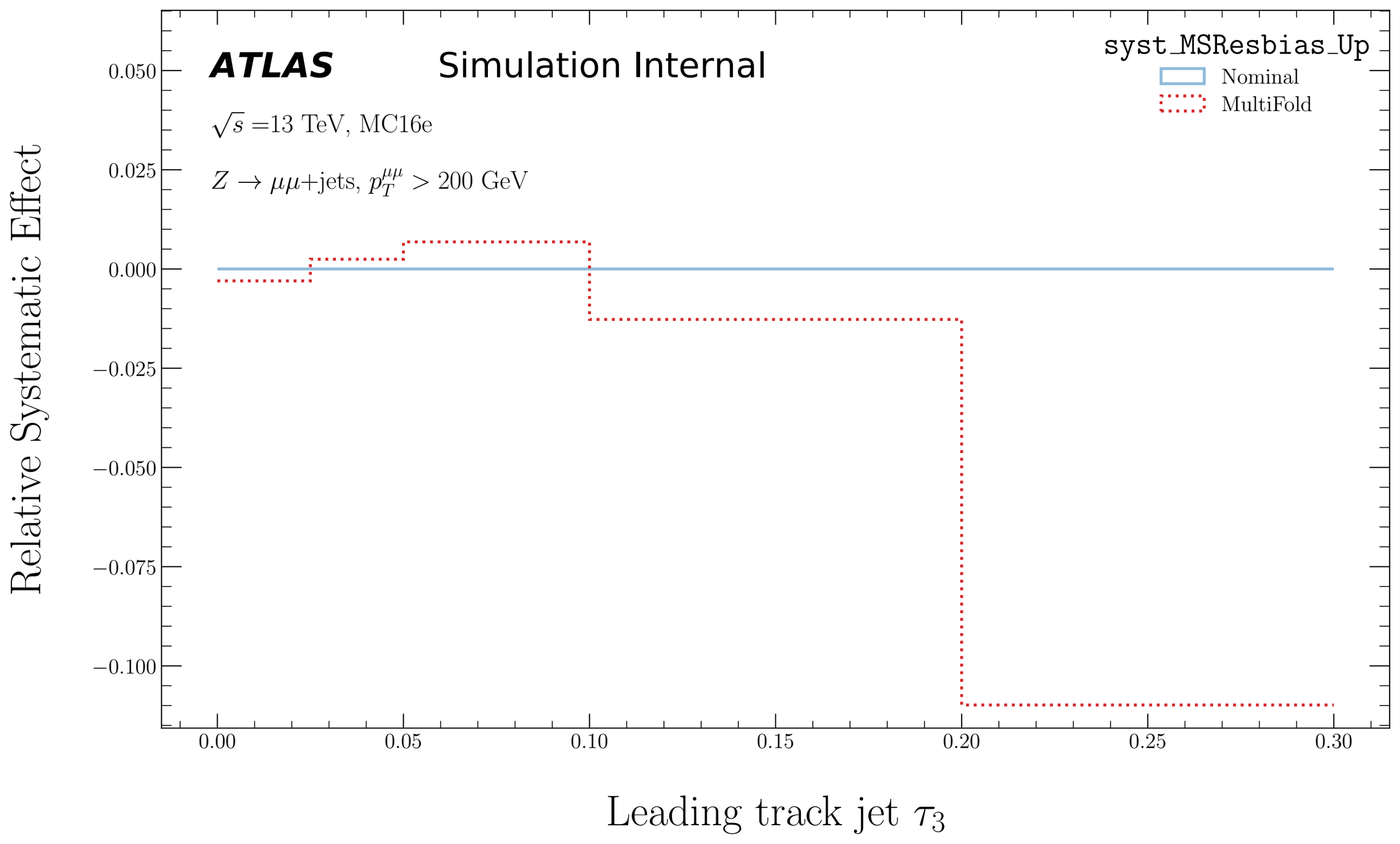

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−0.02
0.0
0.1
0.2
0.3
0.4
0.5
Subleading track jet τ_2

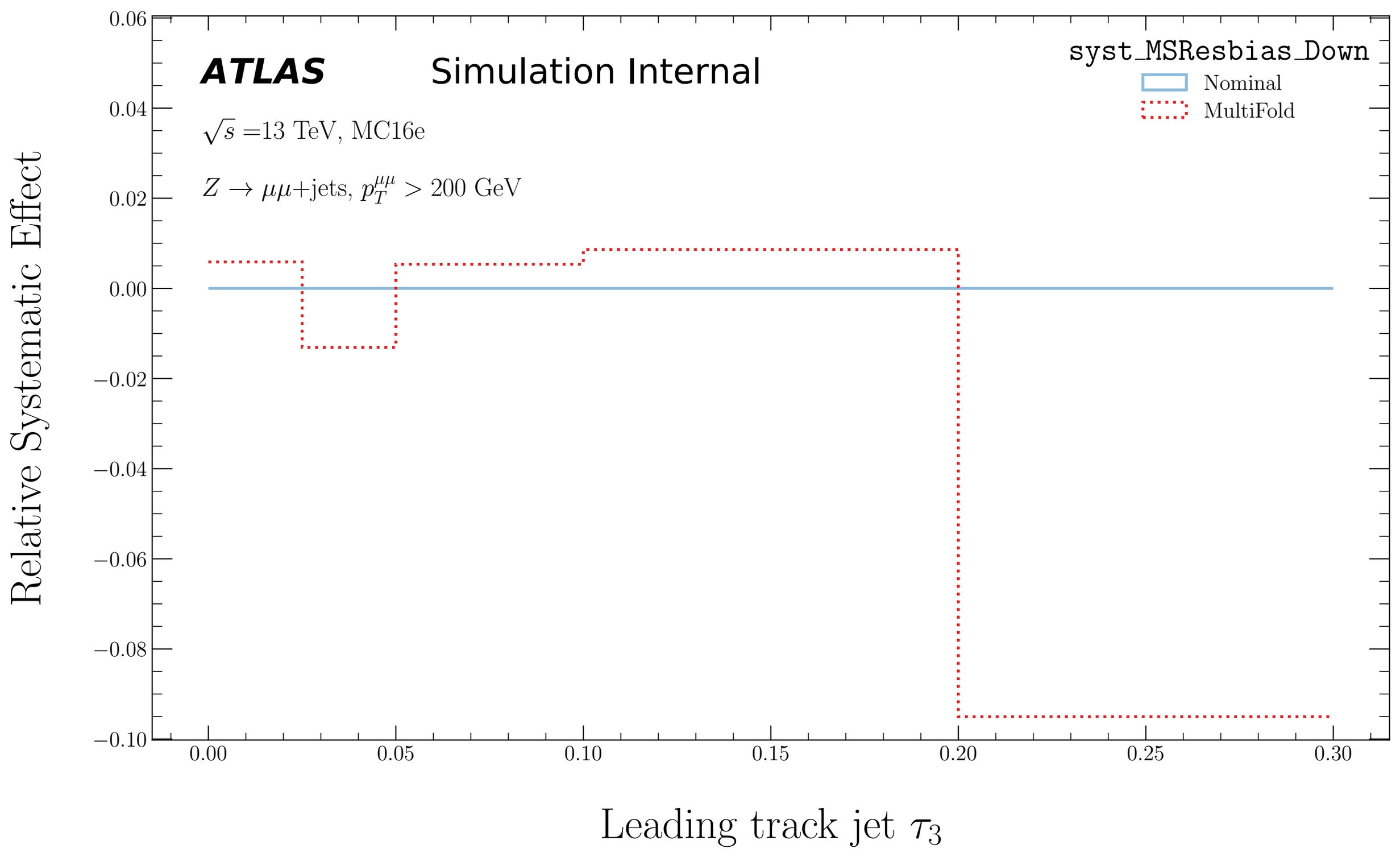

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Leading track jet τ_3

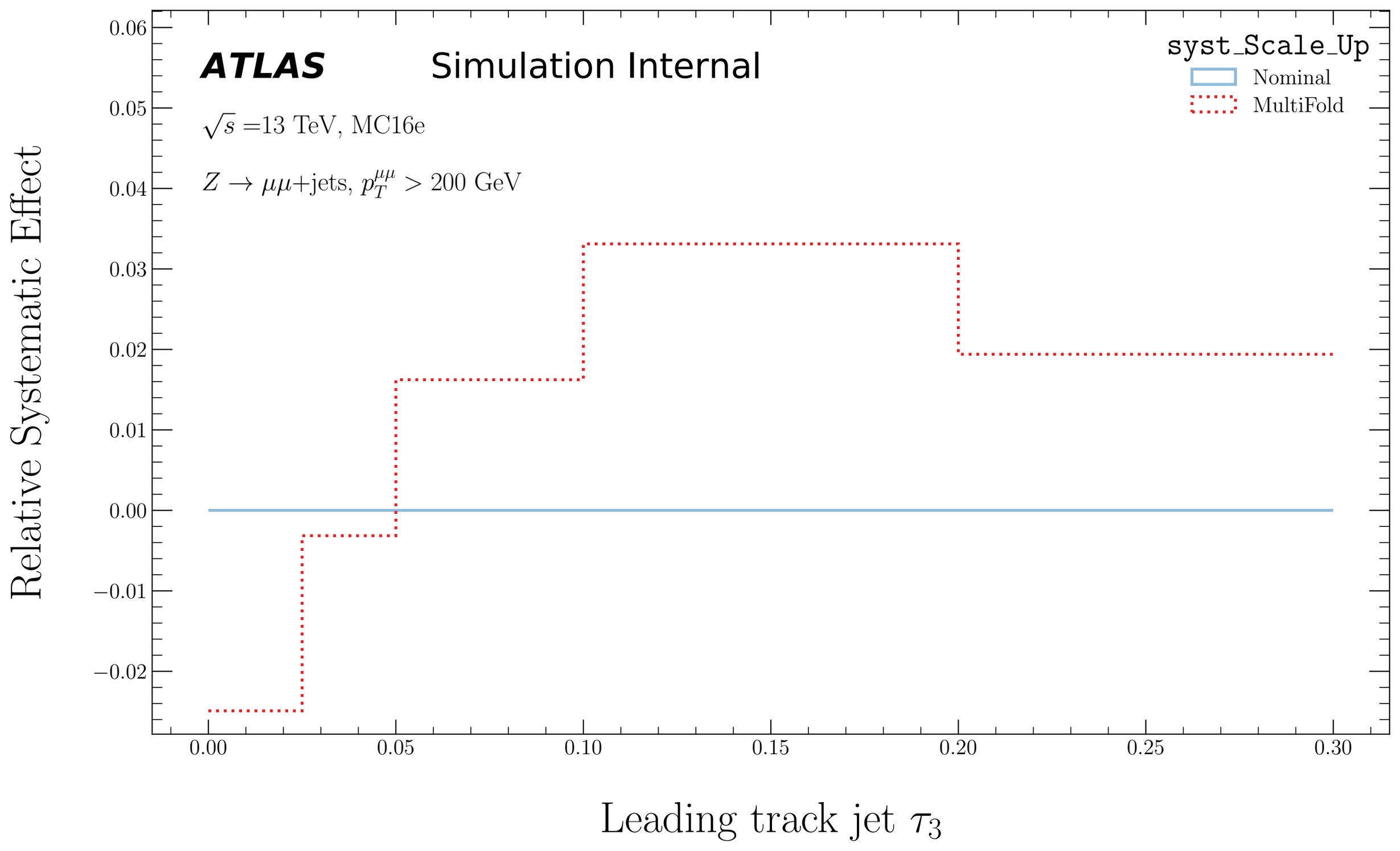

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_3
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
0.00
0.05
0.10
0.15
0.20
0.25
0.30

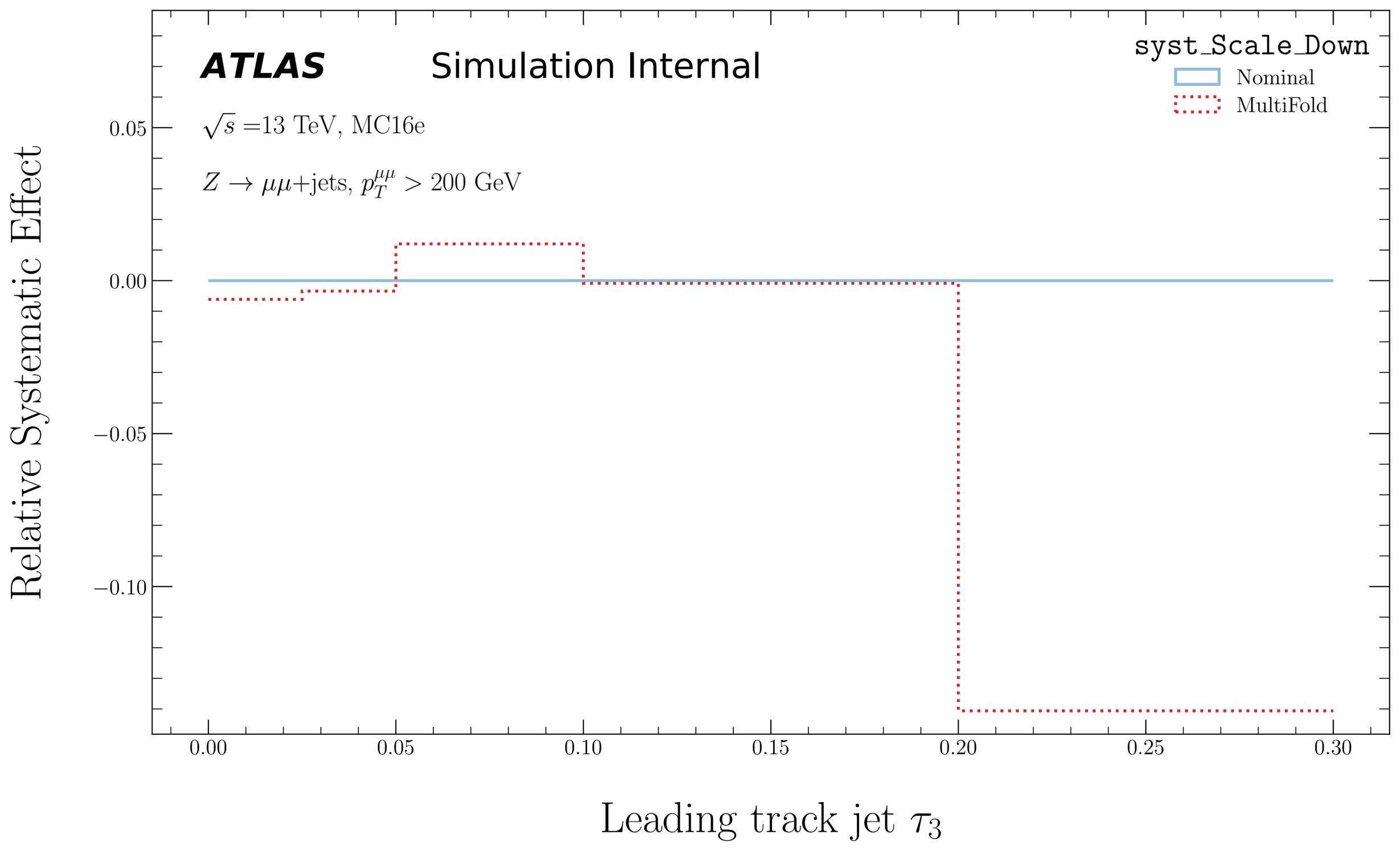

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_3
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
0.00
0.05
0.10
0.15
0.20
0.25
0.30

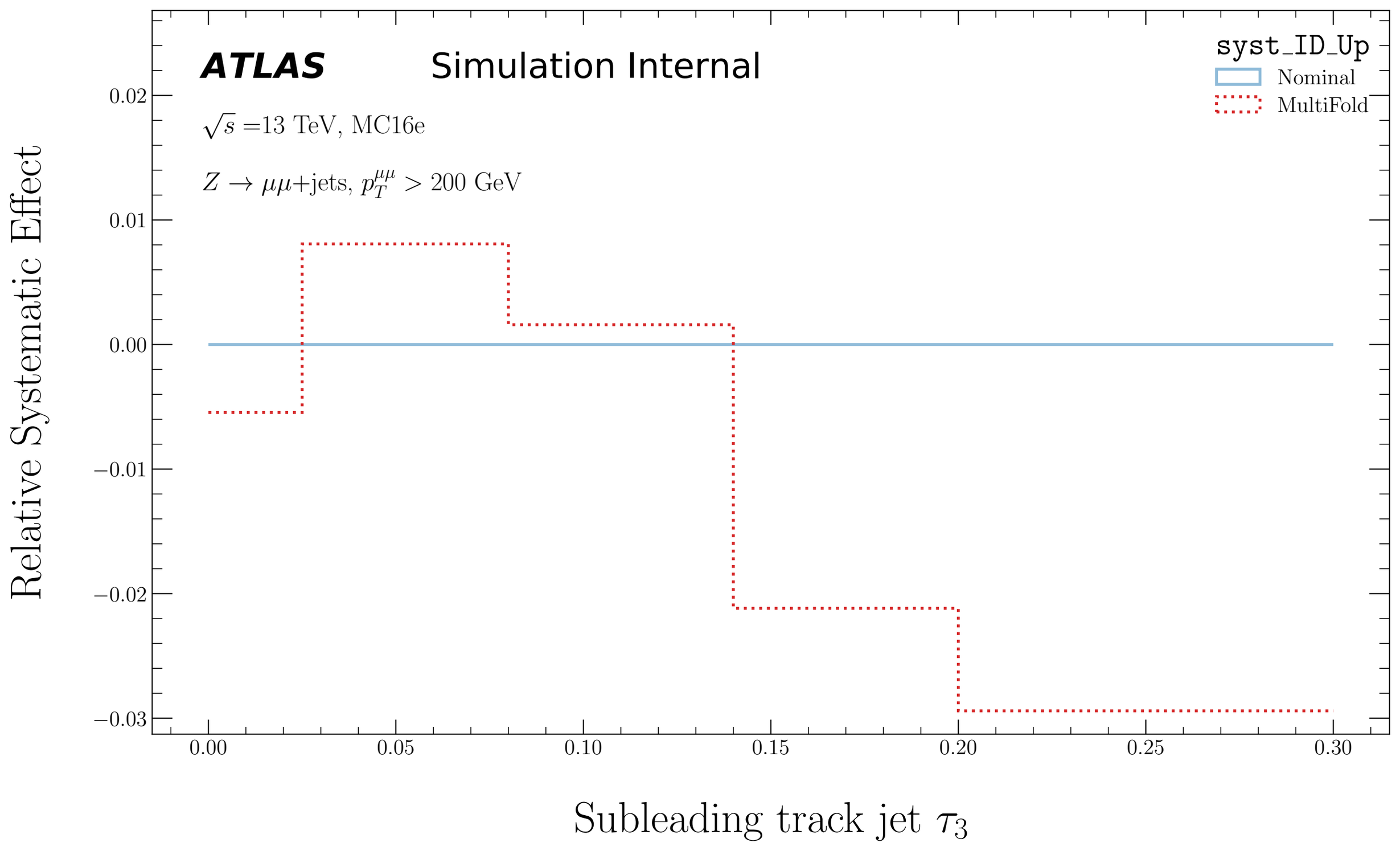

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_3
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
0.00
0.05
0.10
0.15
0.20
0.25
0.30

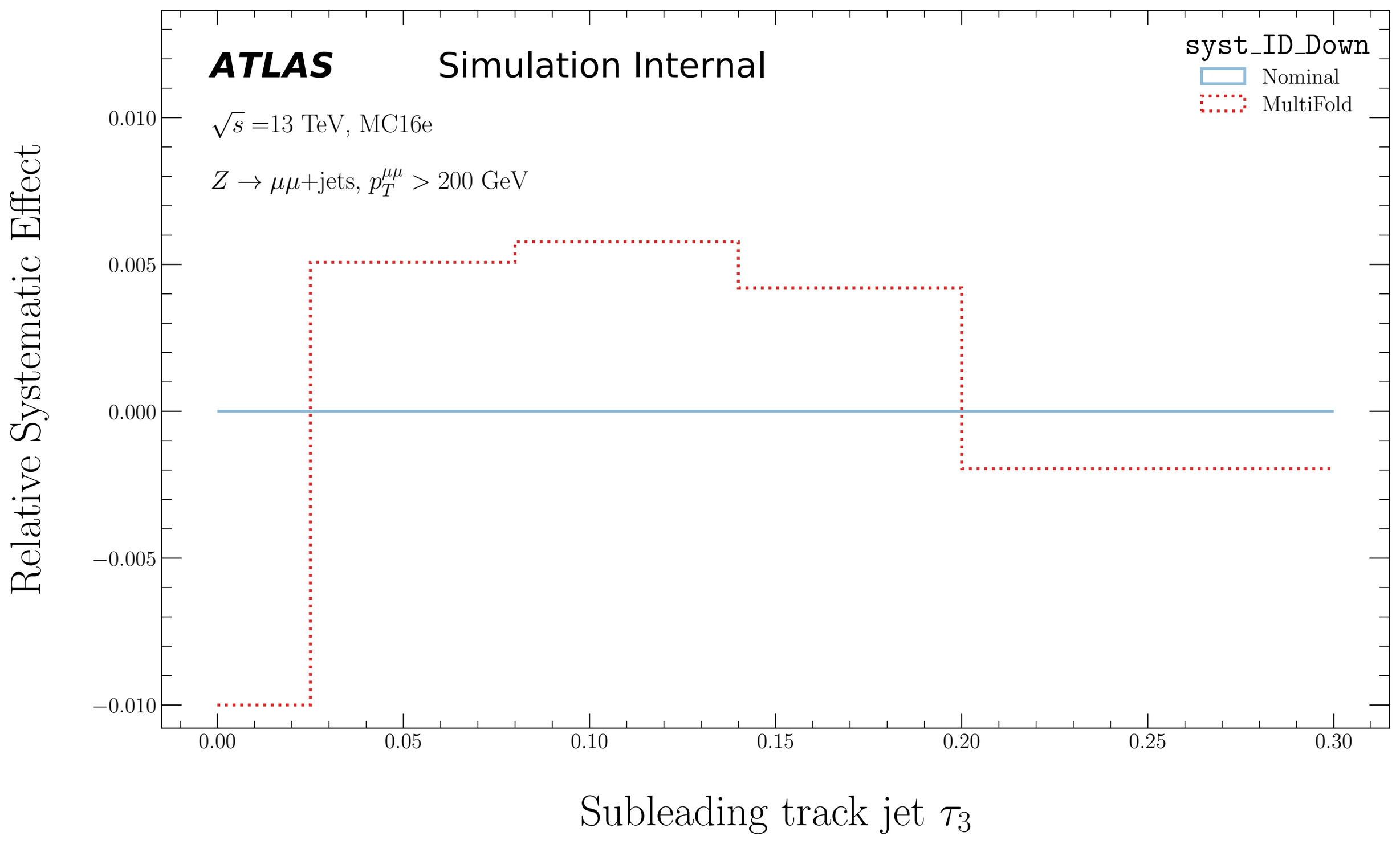

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Leading track jet τ_3

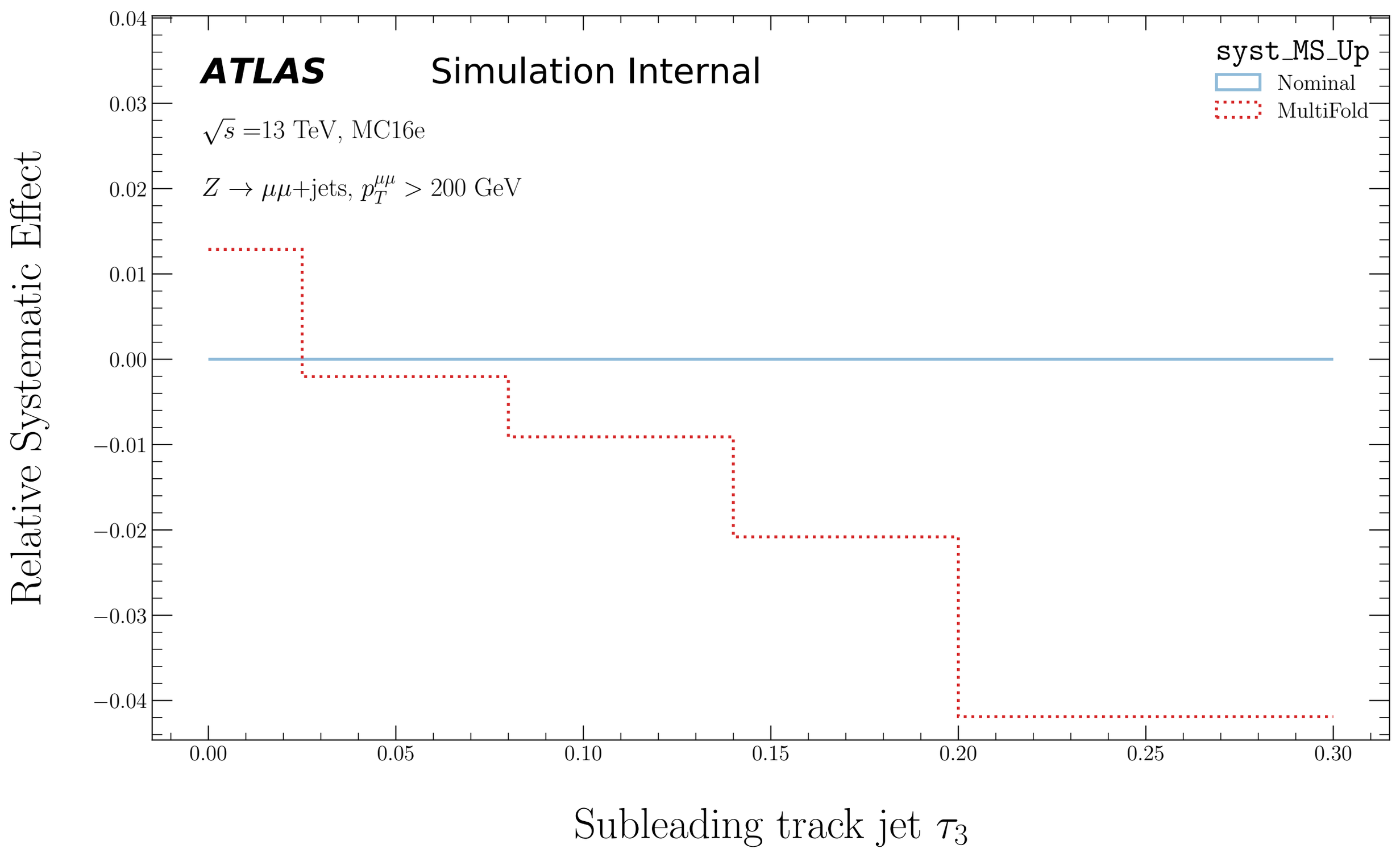

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_3
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
−0.10
0.00
0.05
0.10
0.15
0.20
0.25
0.30

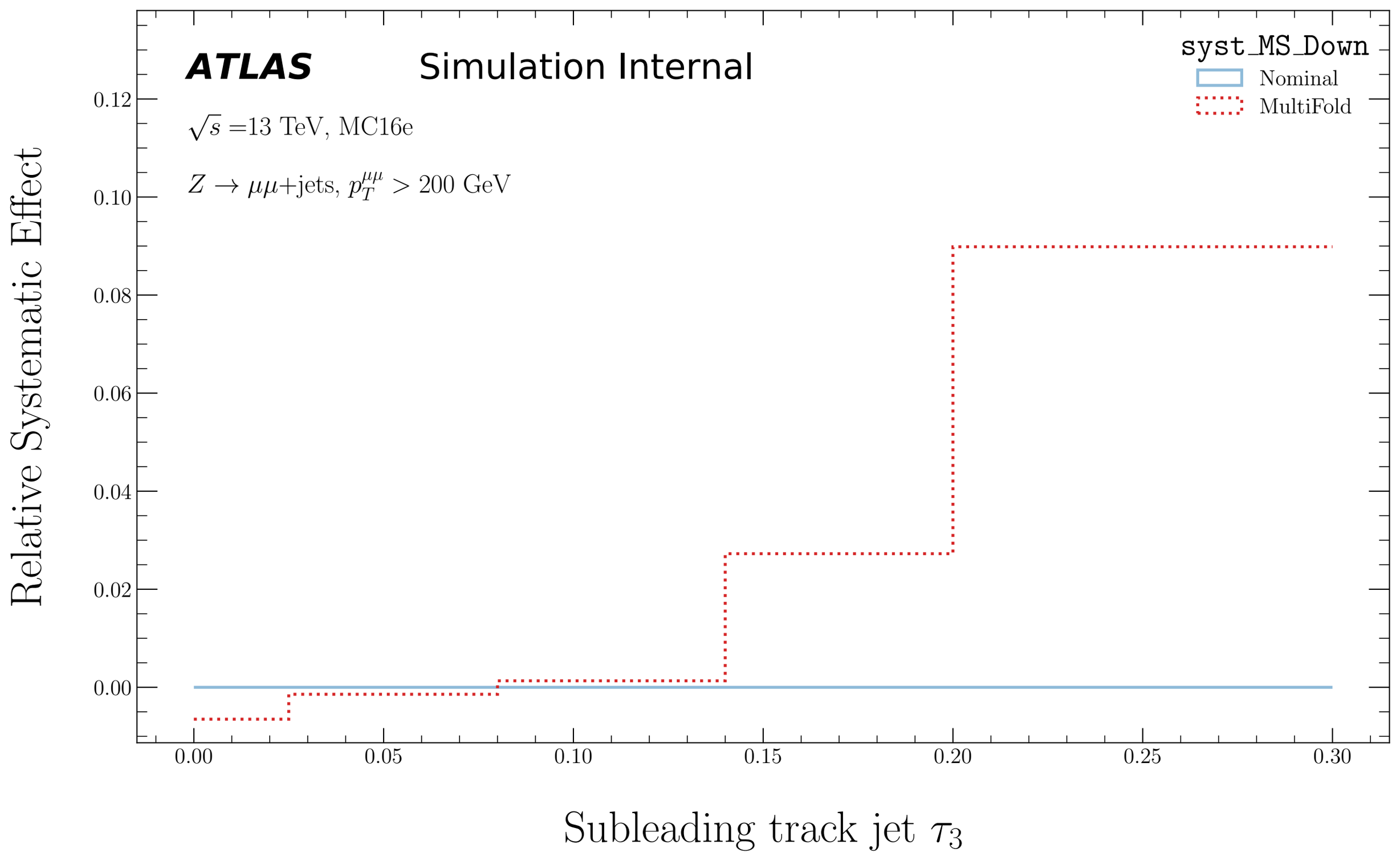

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
Leading track jet τ_3
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
0.00
0.05
0.10
0.15
0.20
0.25
0.30

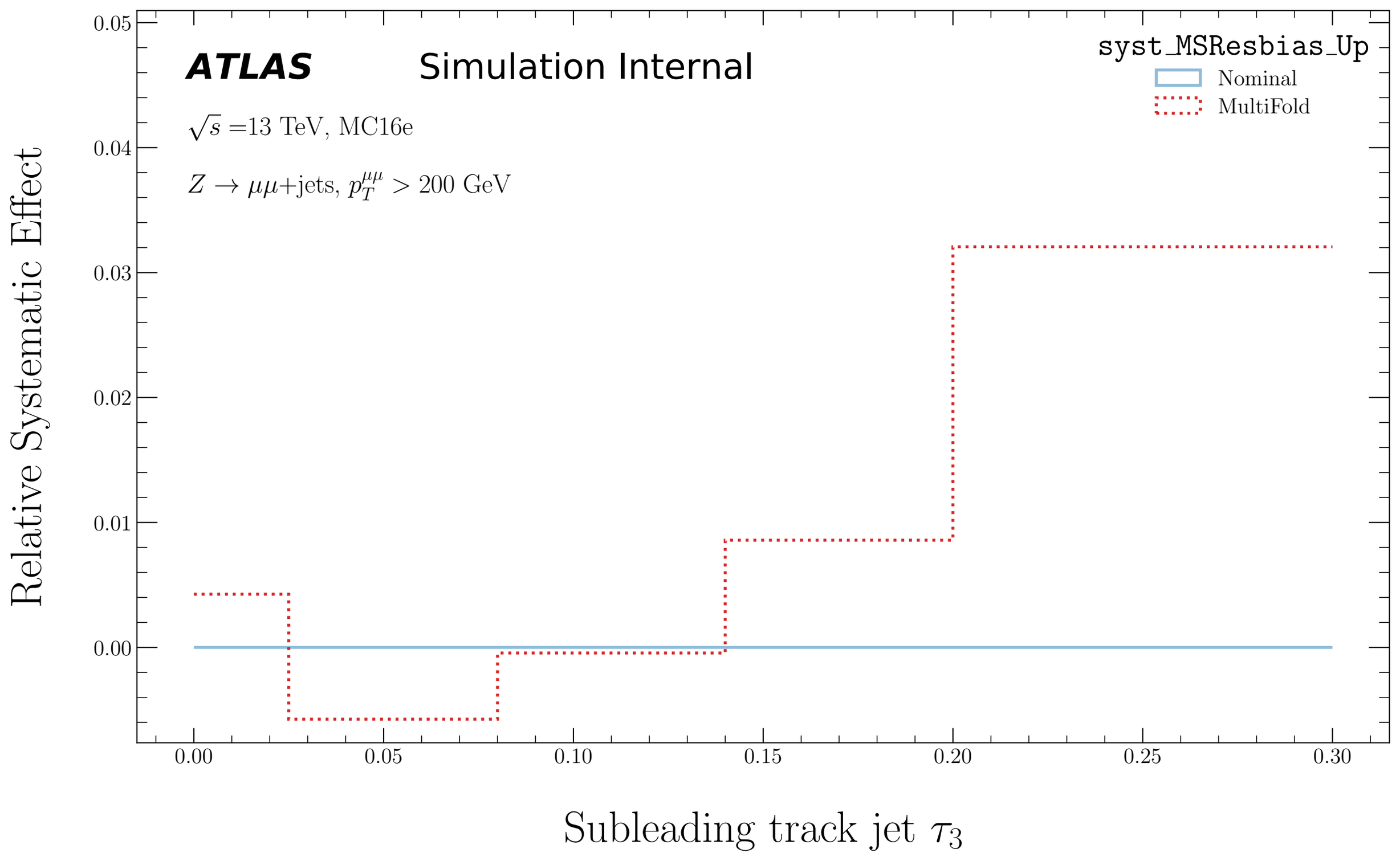

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.05
0.00
−0.05
−0.10
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Leading track jet τ_3

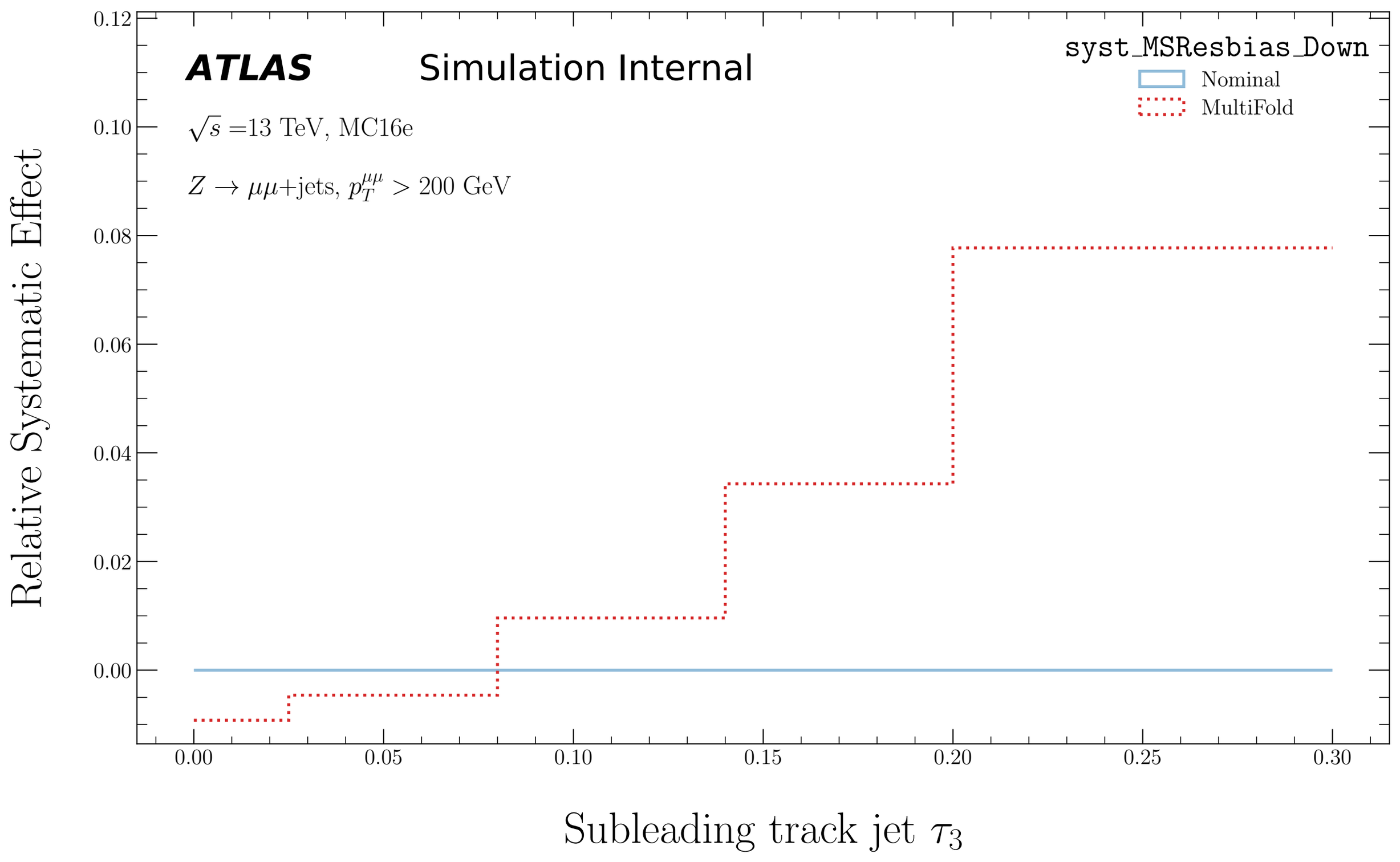

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_3
0.02
0.01
0.00
−0.01
−0.02
−0.03
0.00
0.05
0.10
0.15
0.20
0.25
0.30

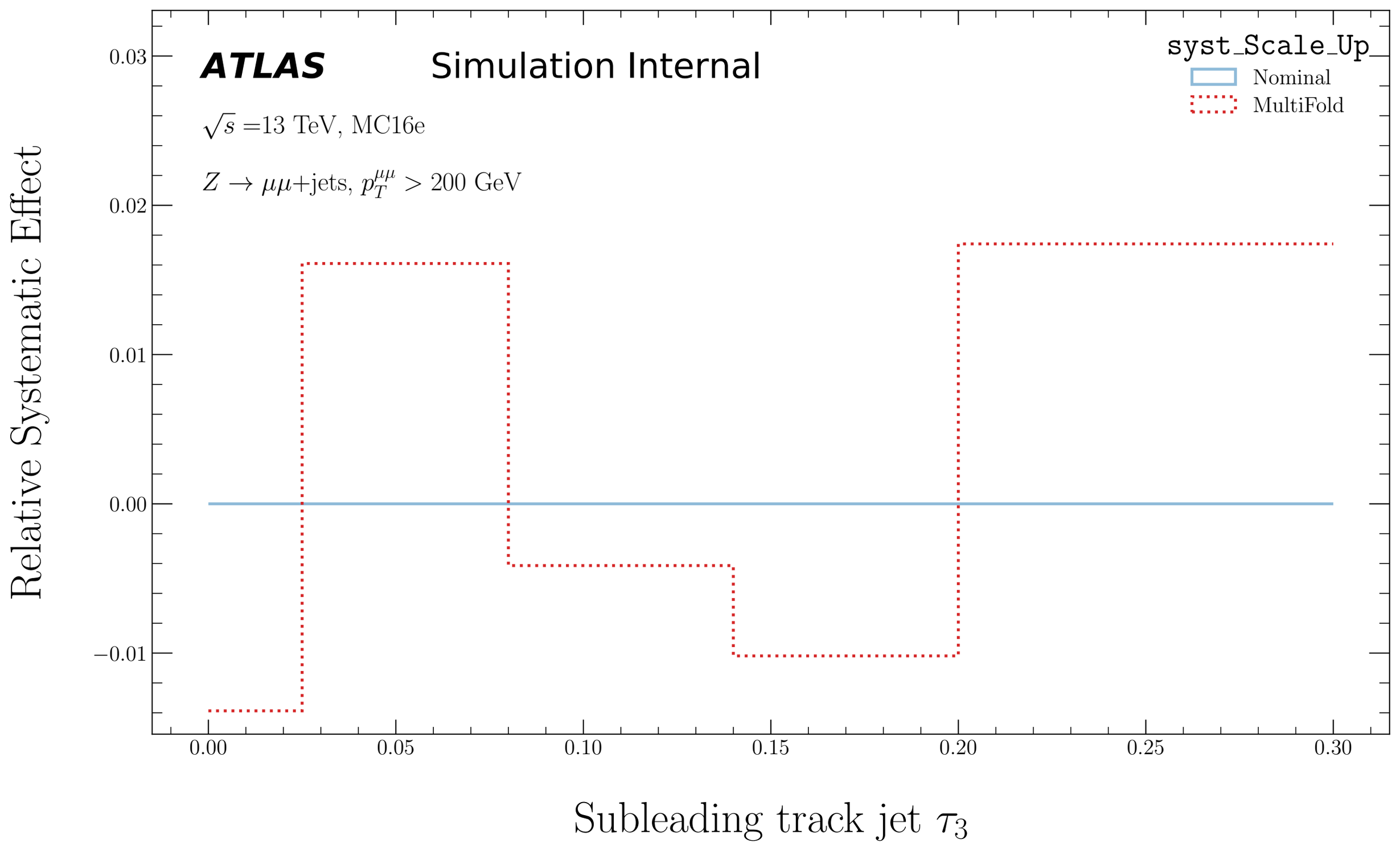

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.010
0.005
0.000
−0.005
−0.010
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Subleading track jet τ_3

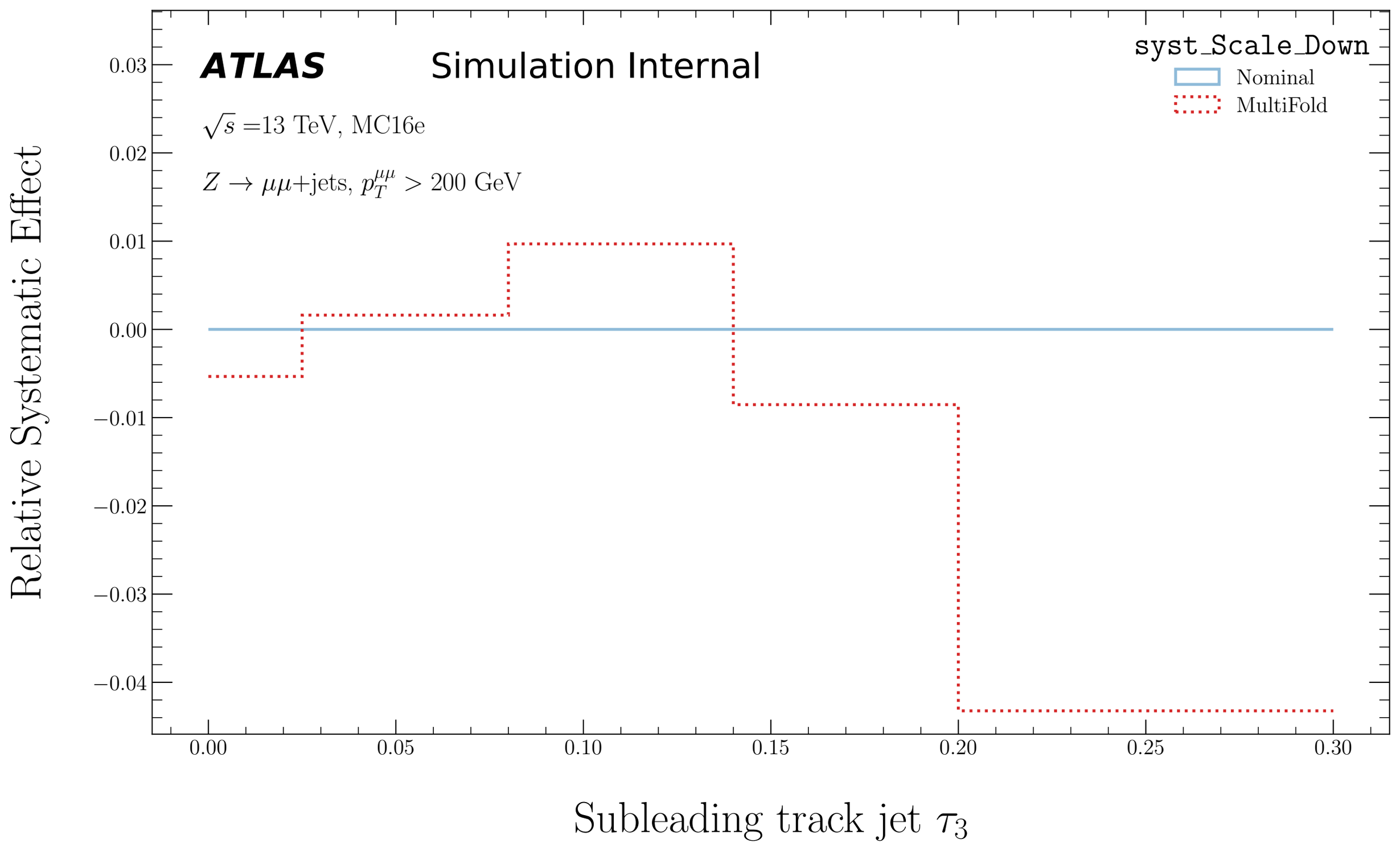

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_3
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00
0.05
0.10
0.15
0.20
0.25
0.30

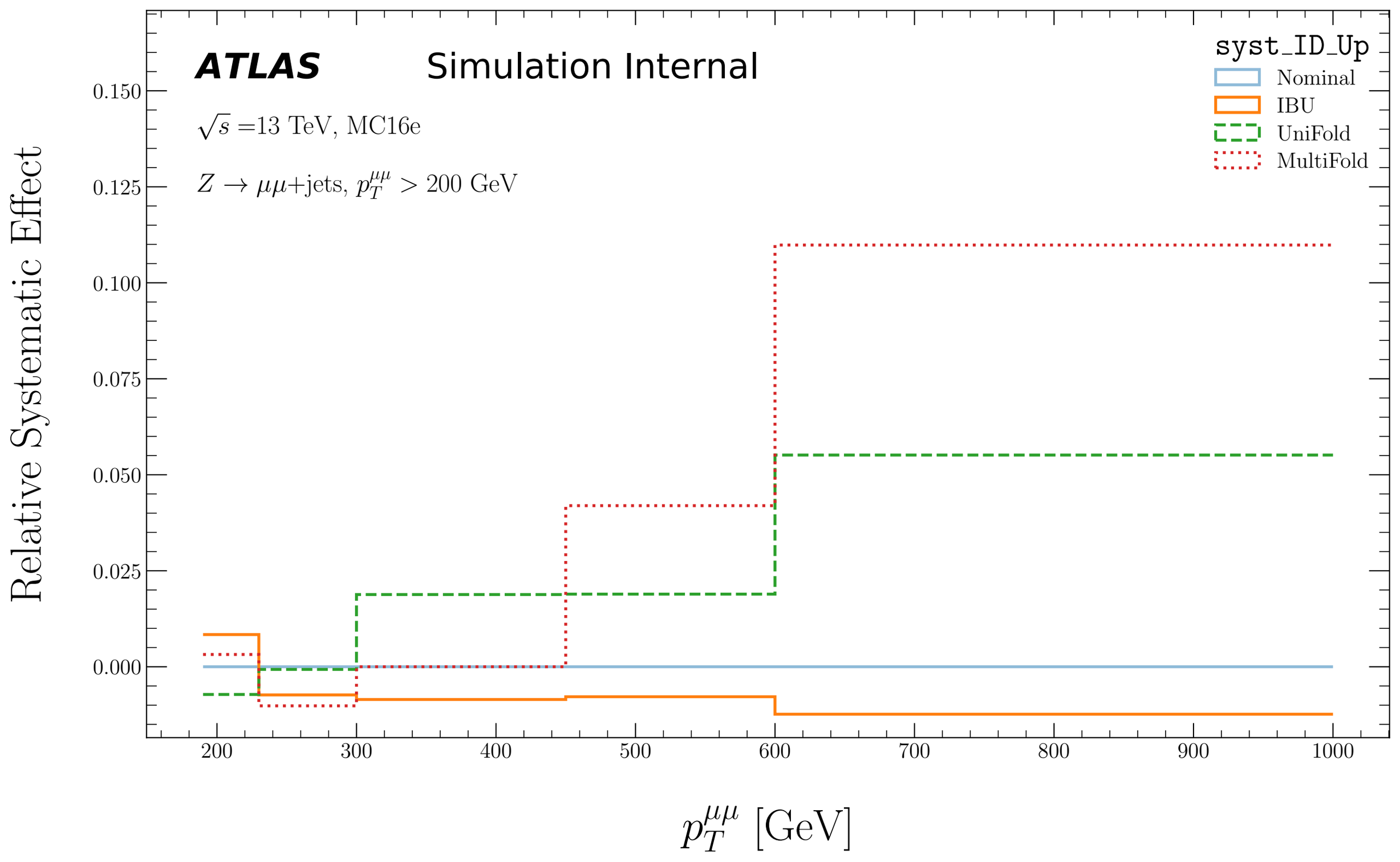

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Subleading track jet τ_3

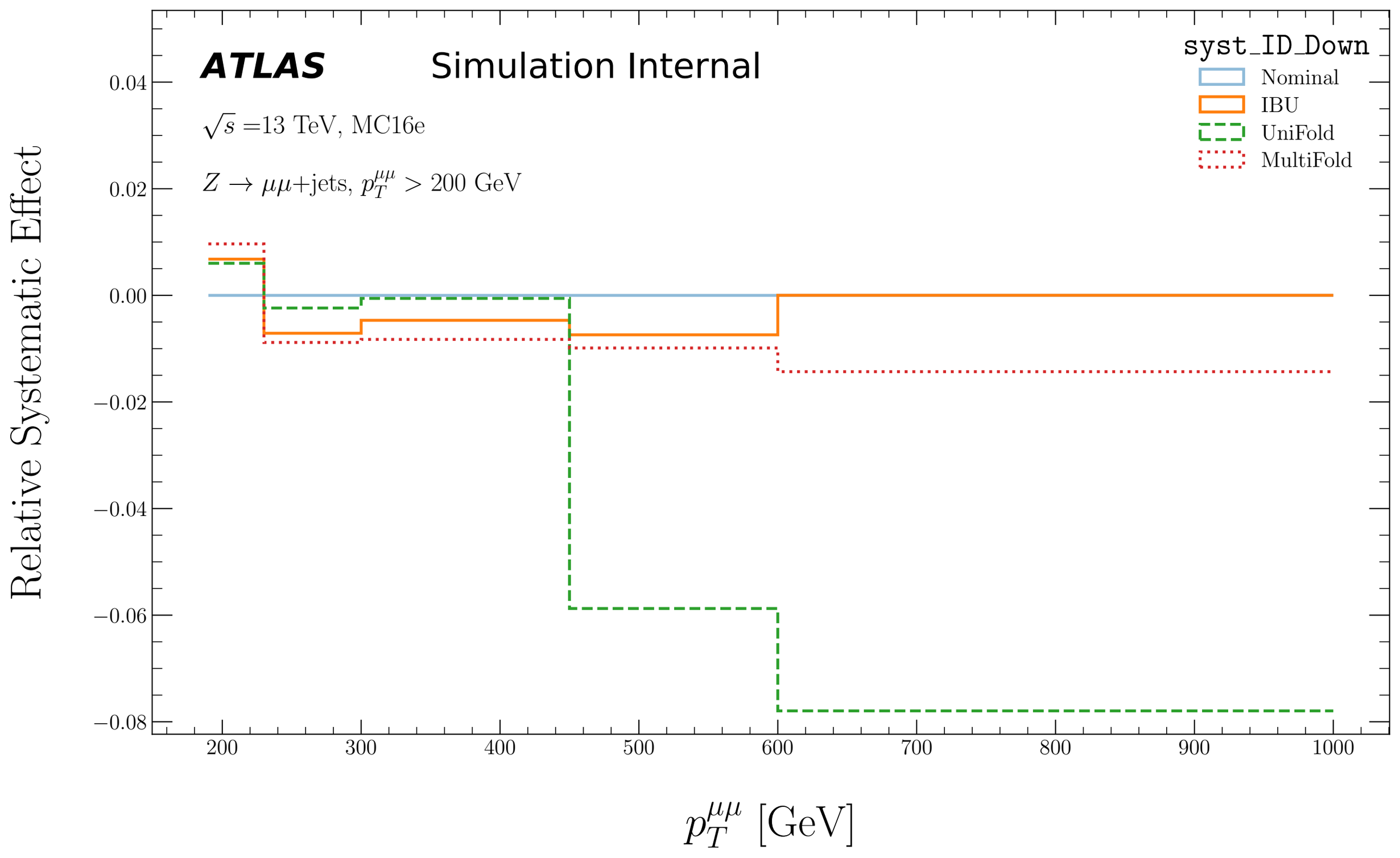

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_3
0.05
0.04
0.03
0.02
0.01
0.00
0.00
0.05
0.10
0.15
0.20
0.25
0.30

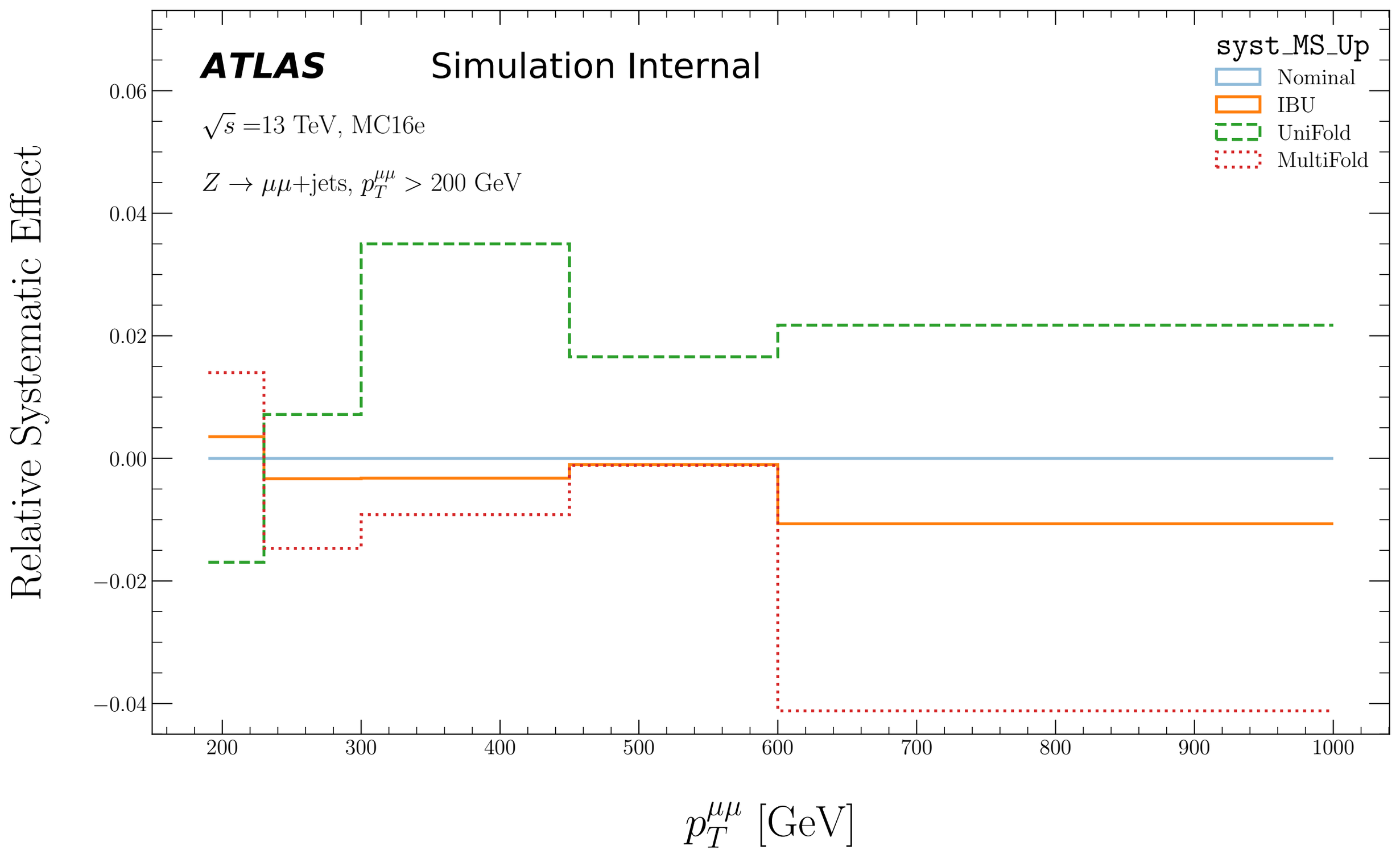

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_3
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.05
0.10
0.15
0.20
0.25
0.30

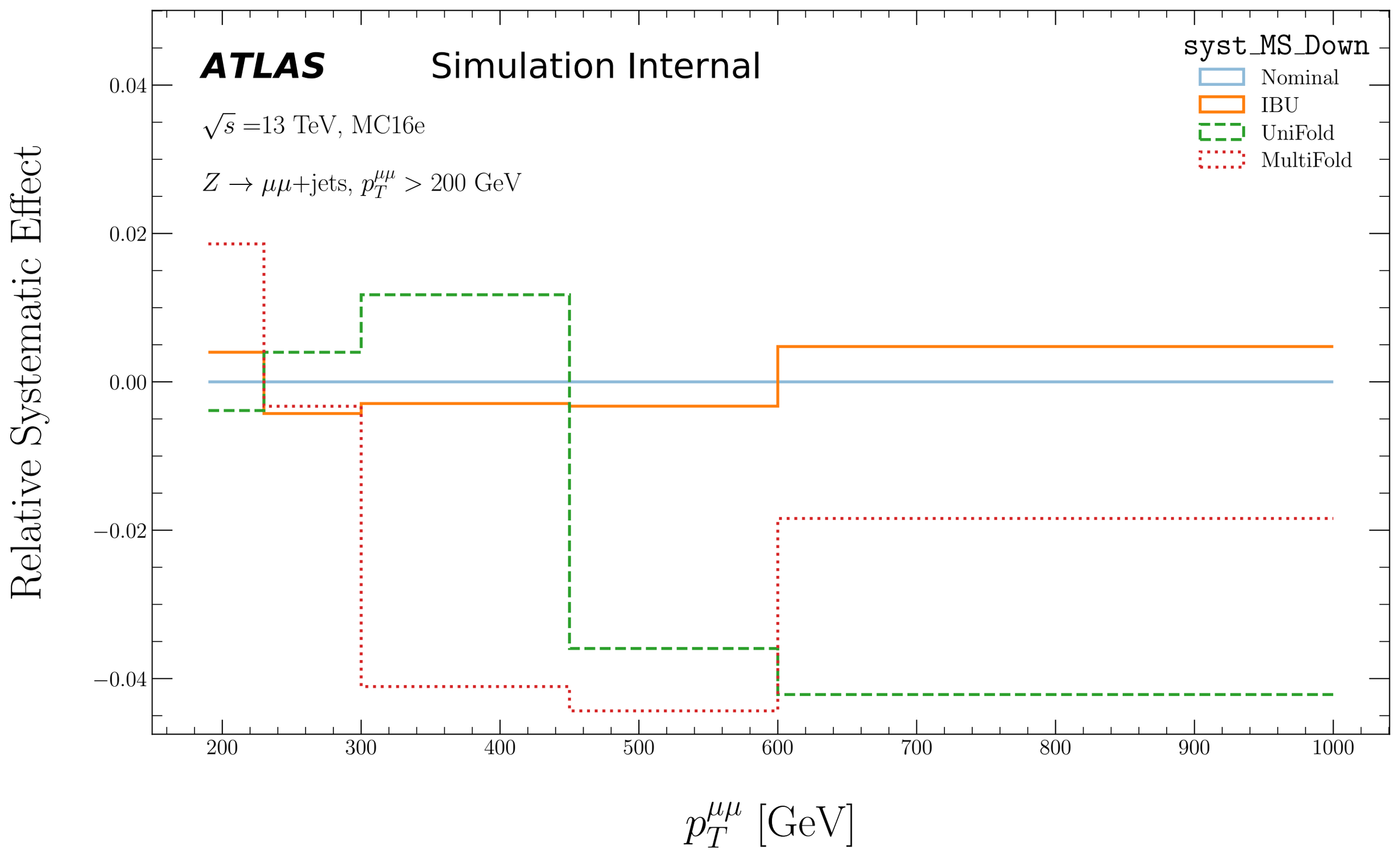

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Subleading track jet τ_3

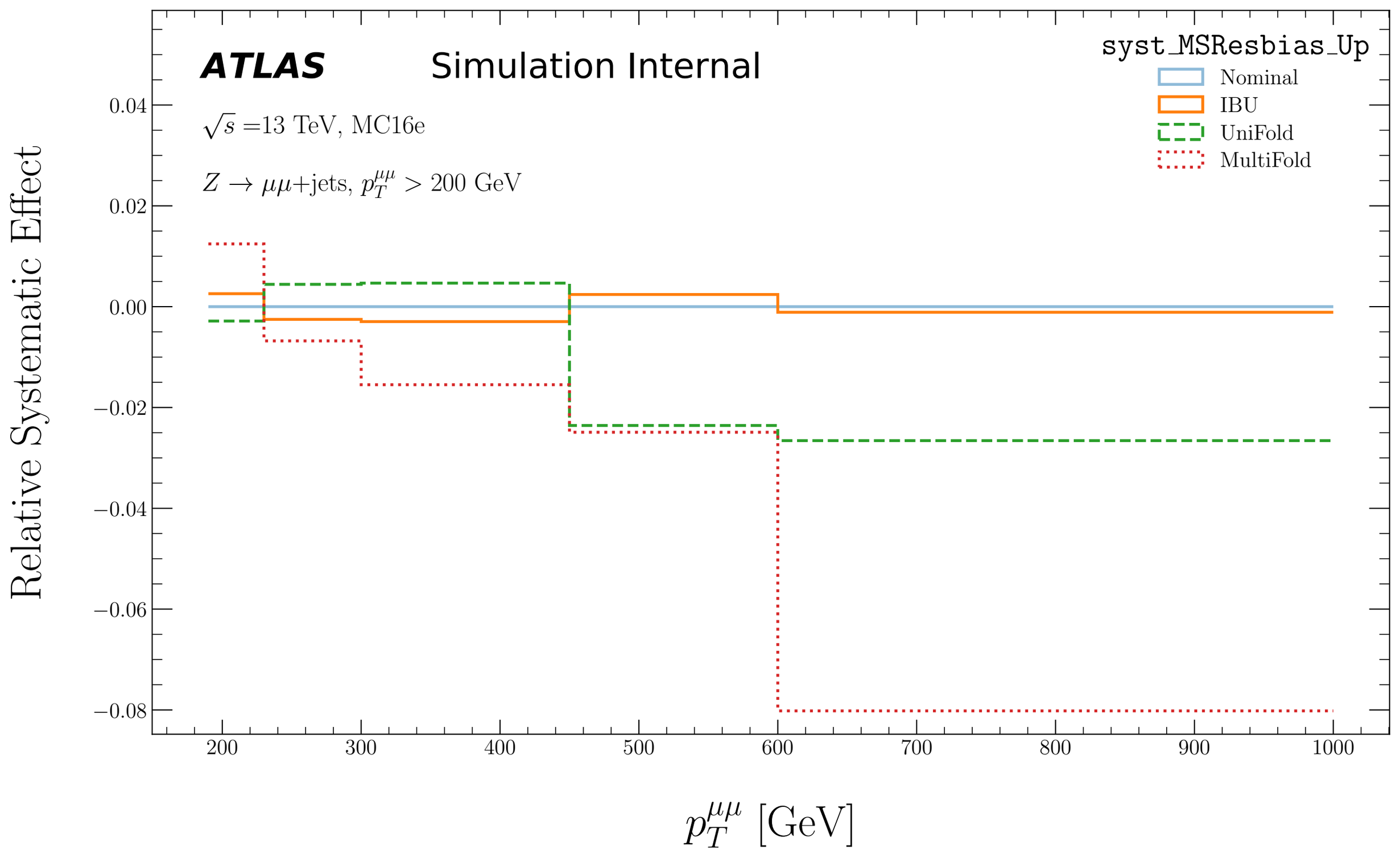

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
Subleading track jet τ_3
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00
0.05
0.10
0.15
0.20
0.25
0.30

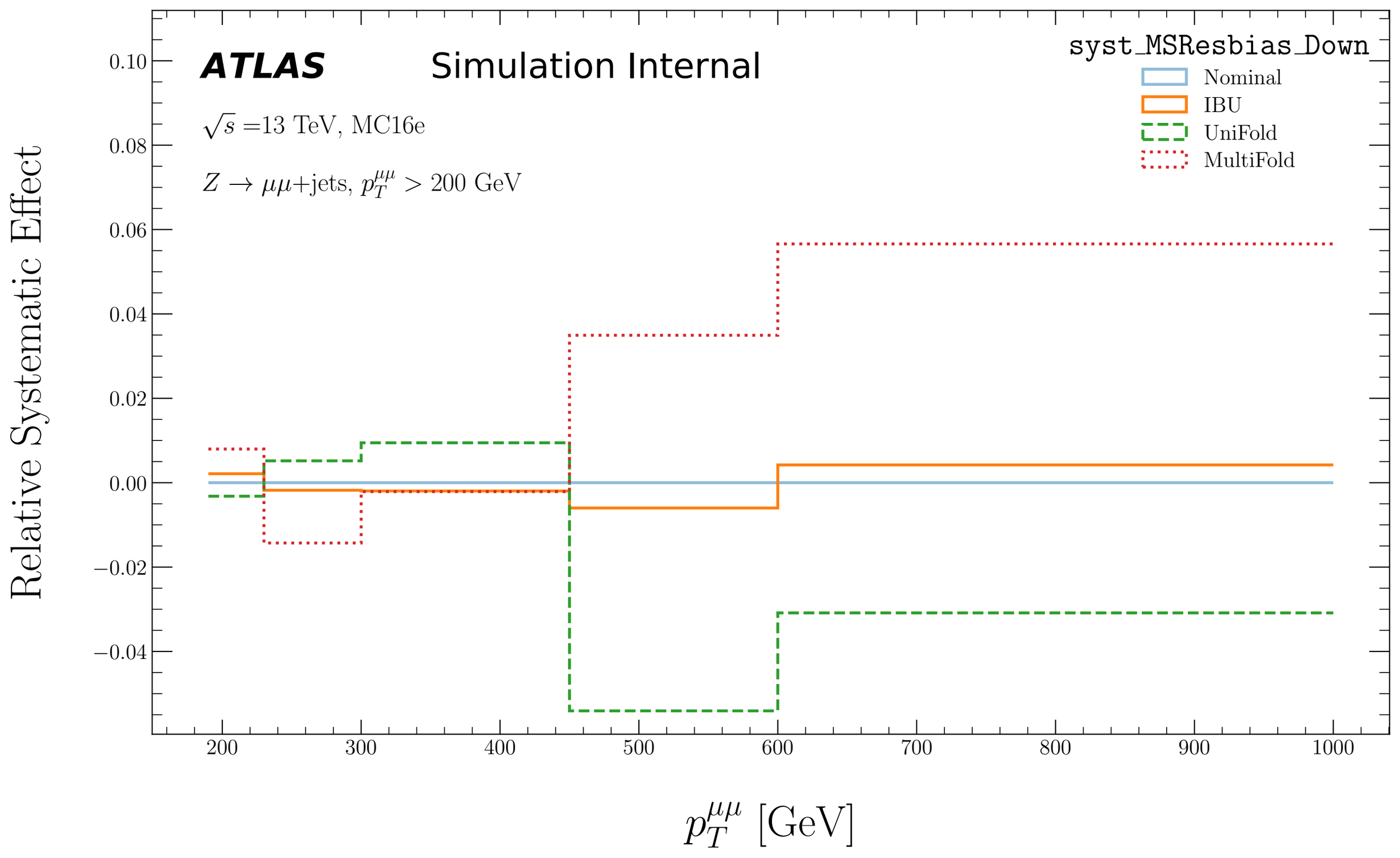

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.150
0.125
0.100
0.075
0.050
0.025
0.000
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

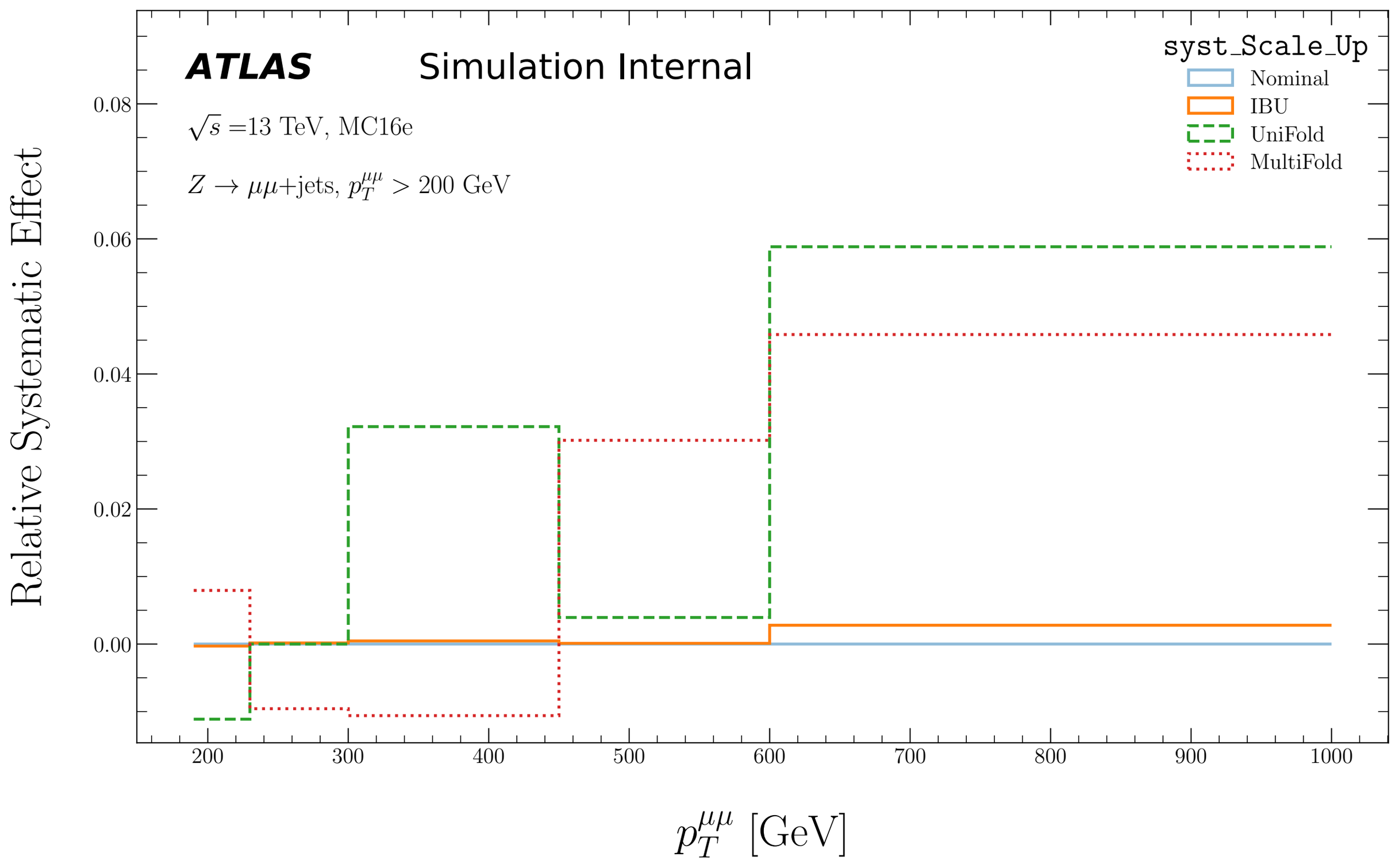

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

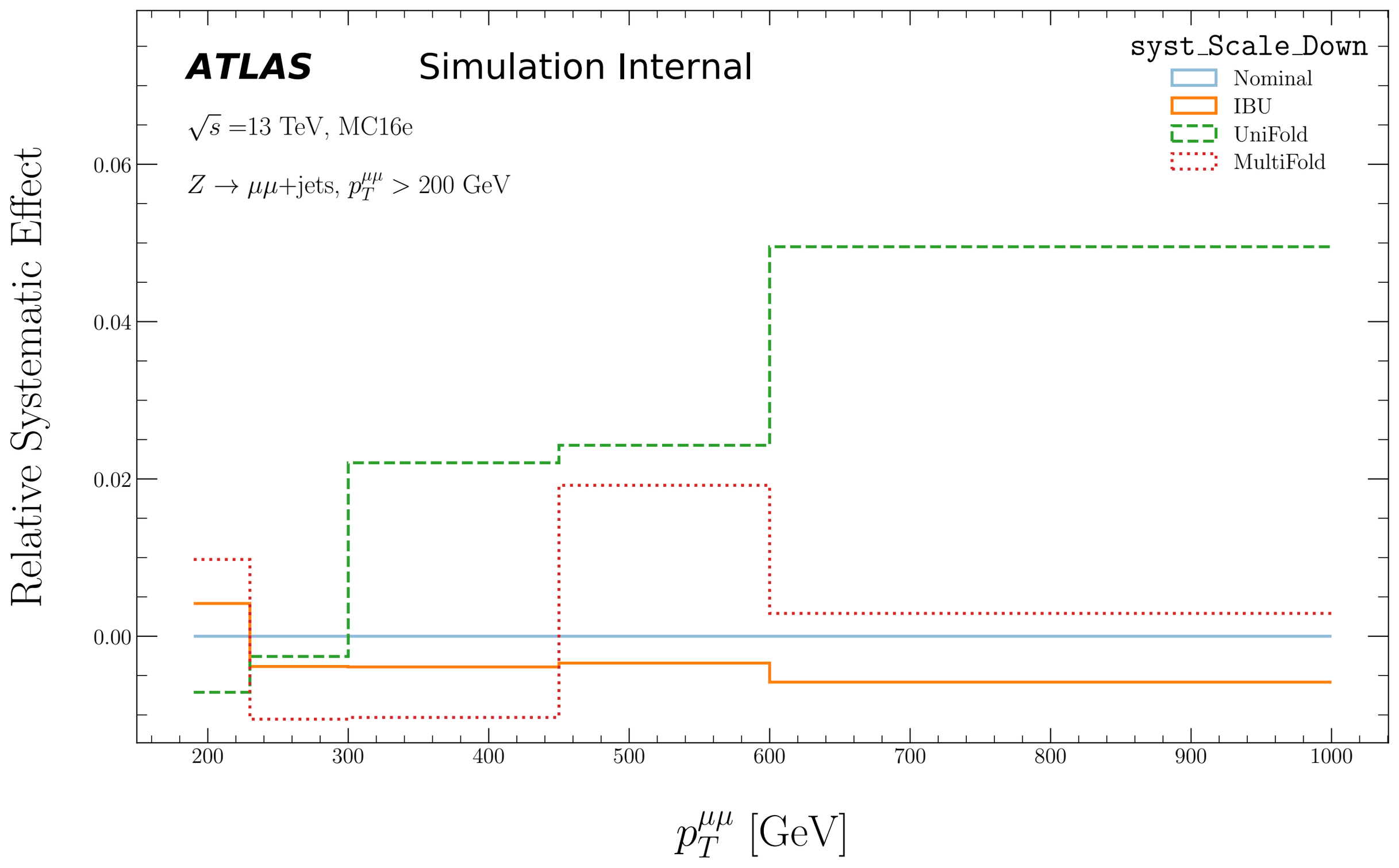

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

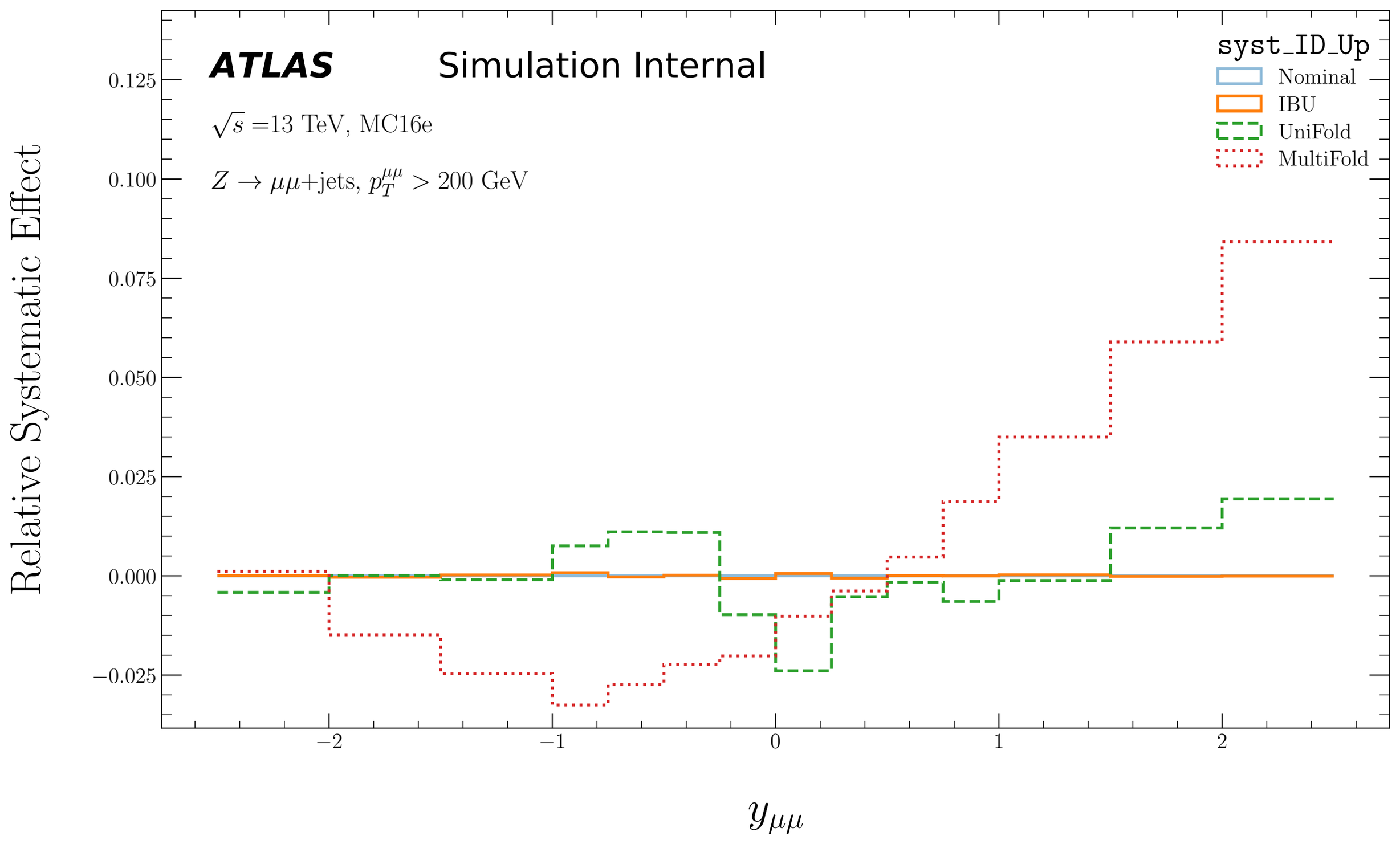

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

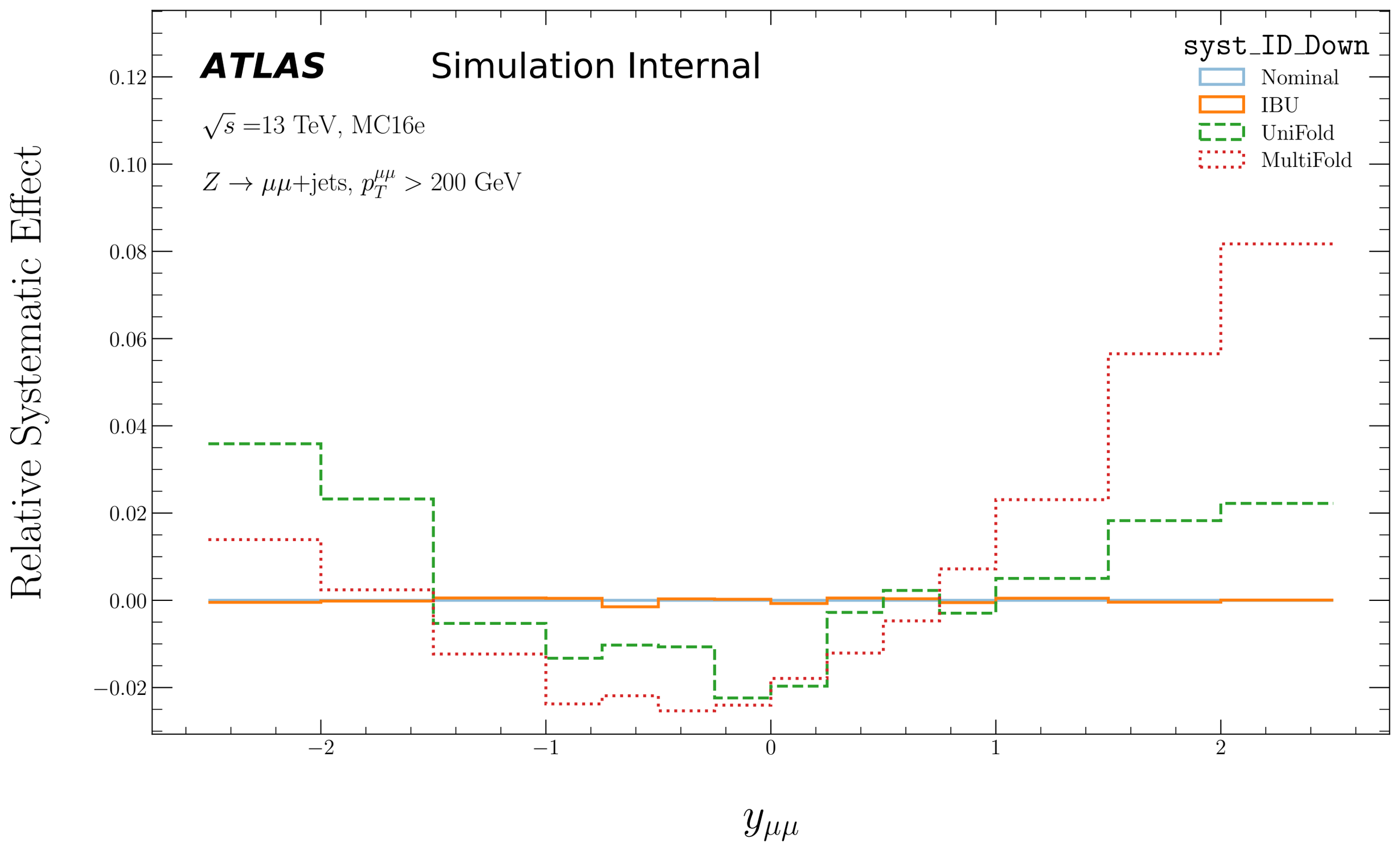

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

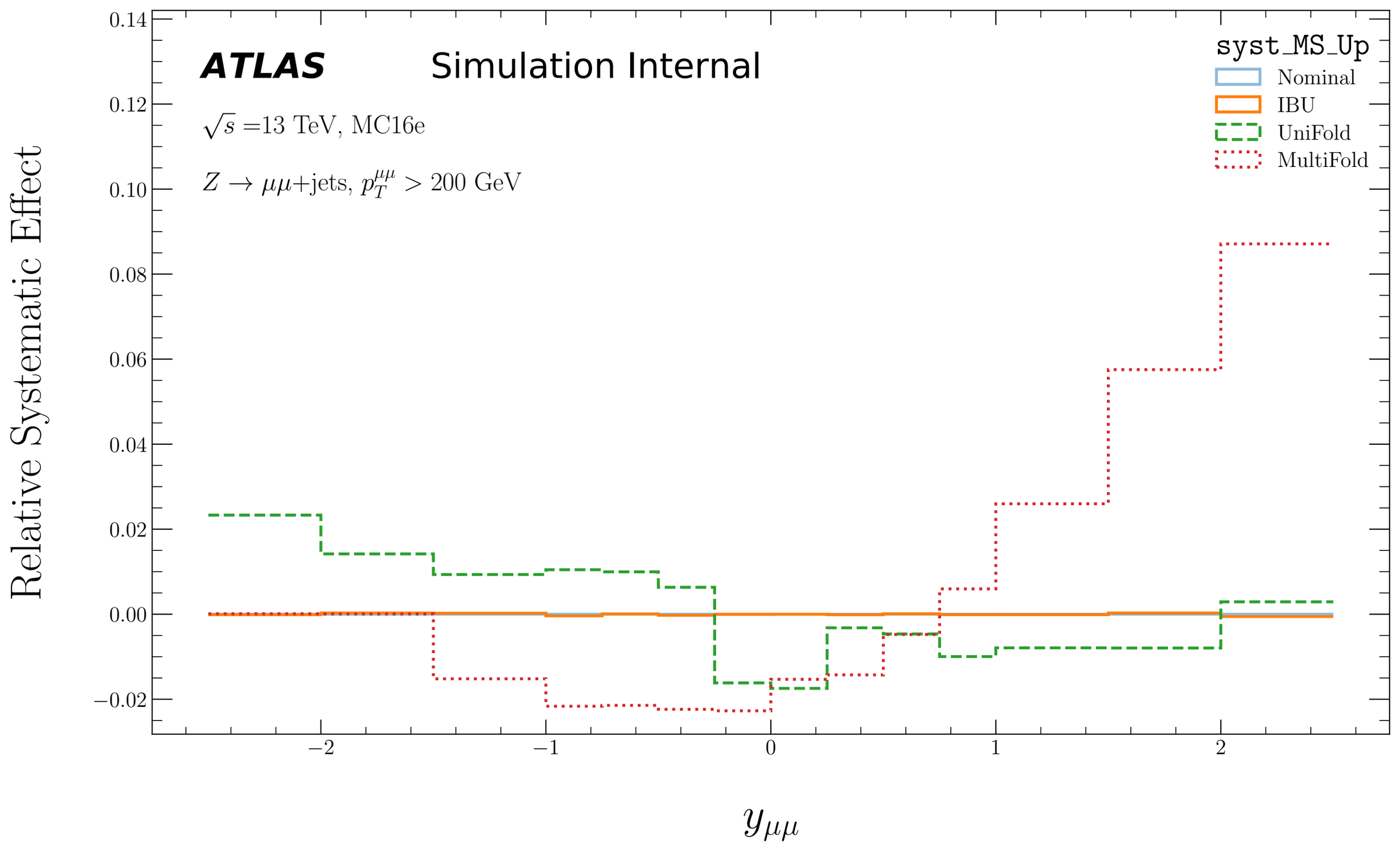

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

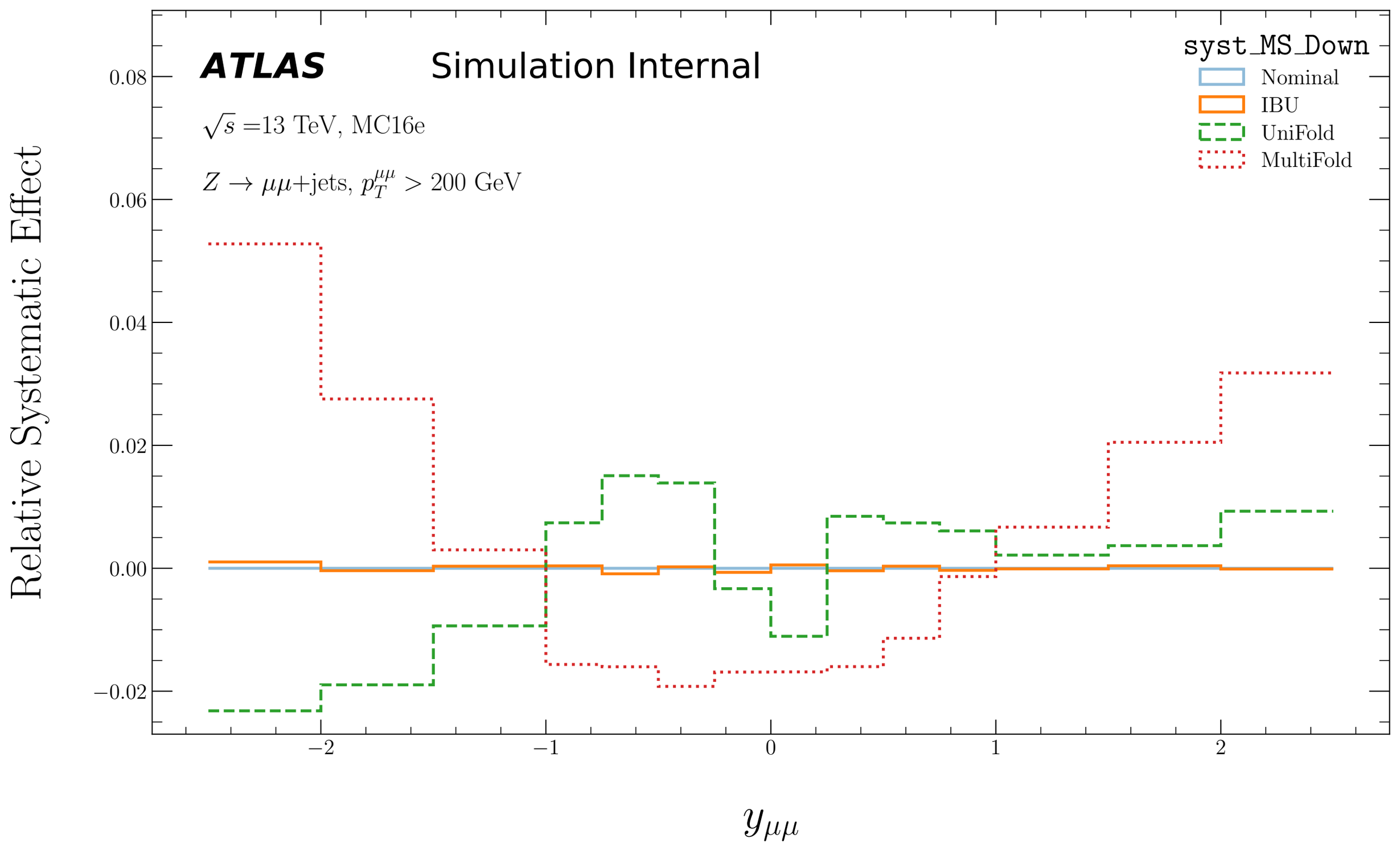

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

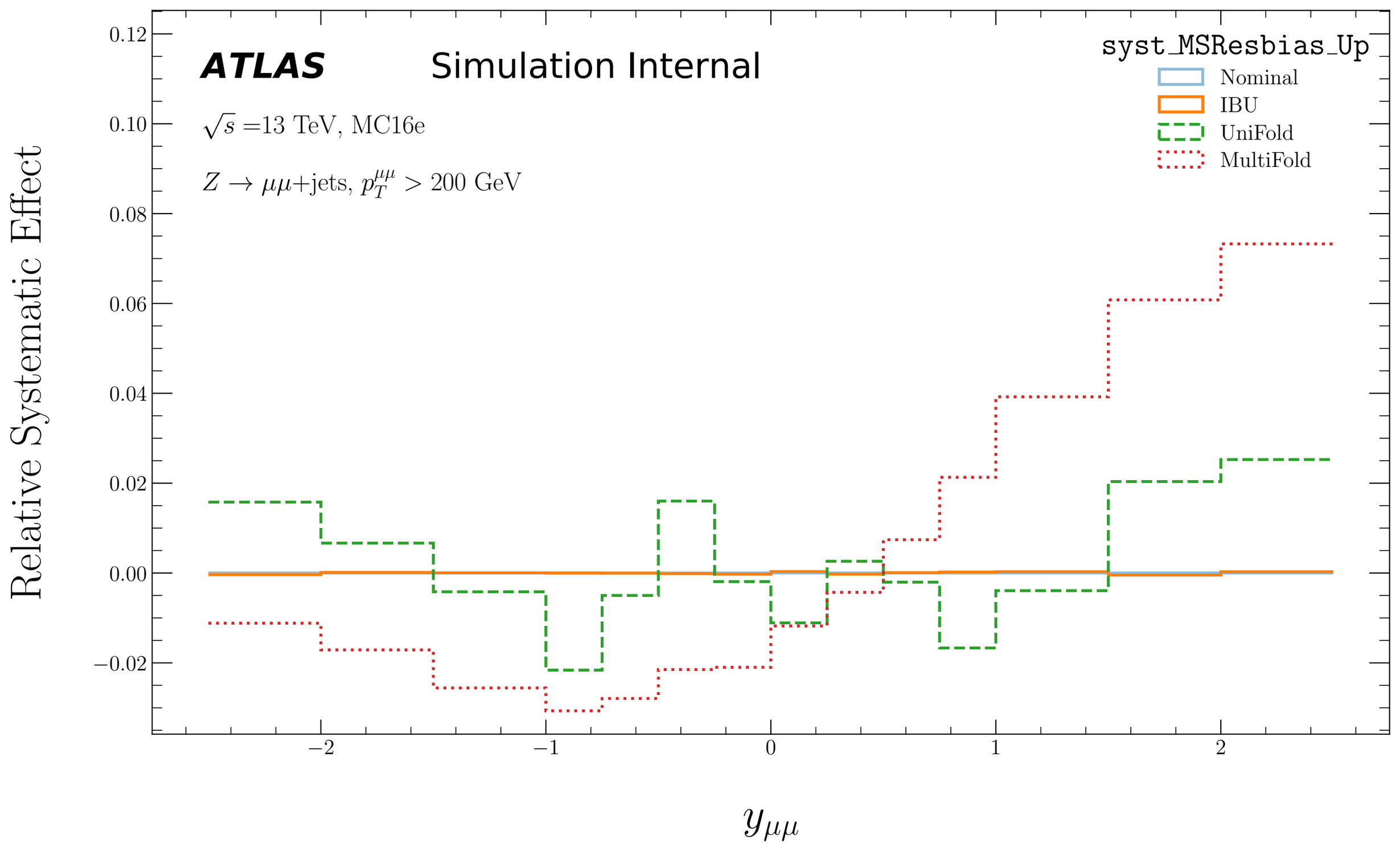

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
200
300
400
500
600
700
800
900
1000
$p_T^{\mu\mu}$ [GeV]

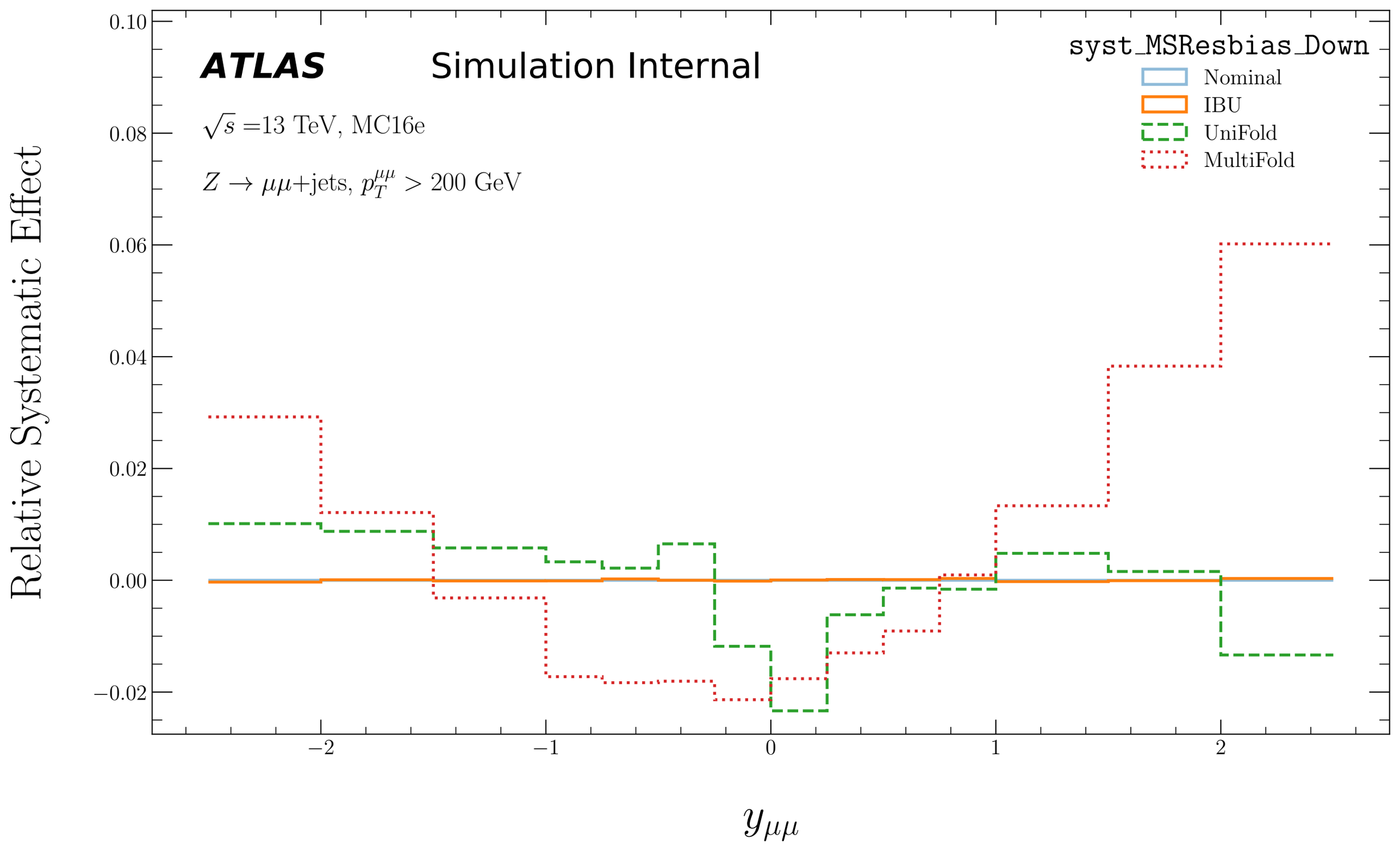

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−2
−1
0
1
2
$y_{\mu\mu}$

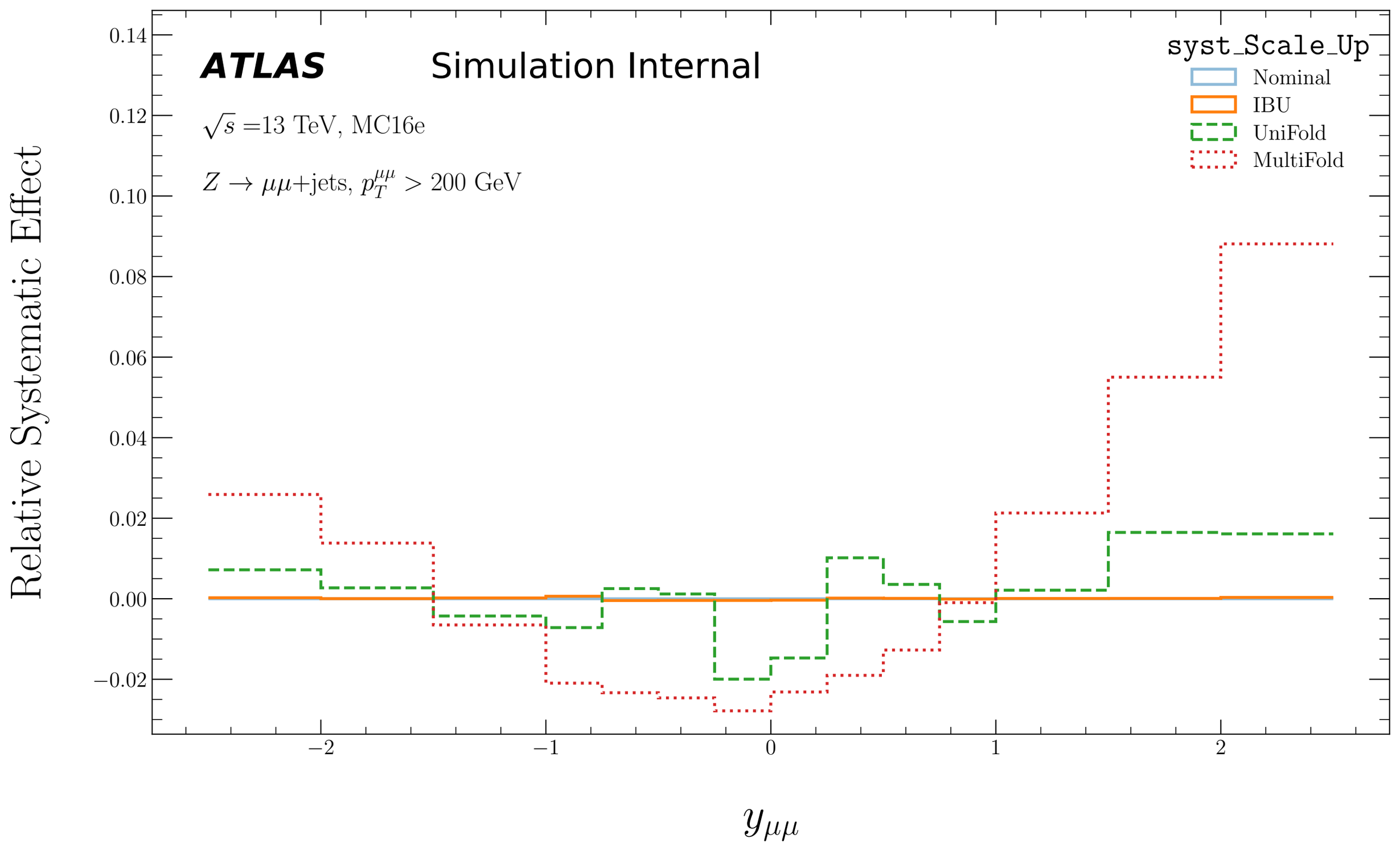

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$y_{\mu\mu}$

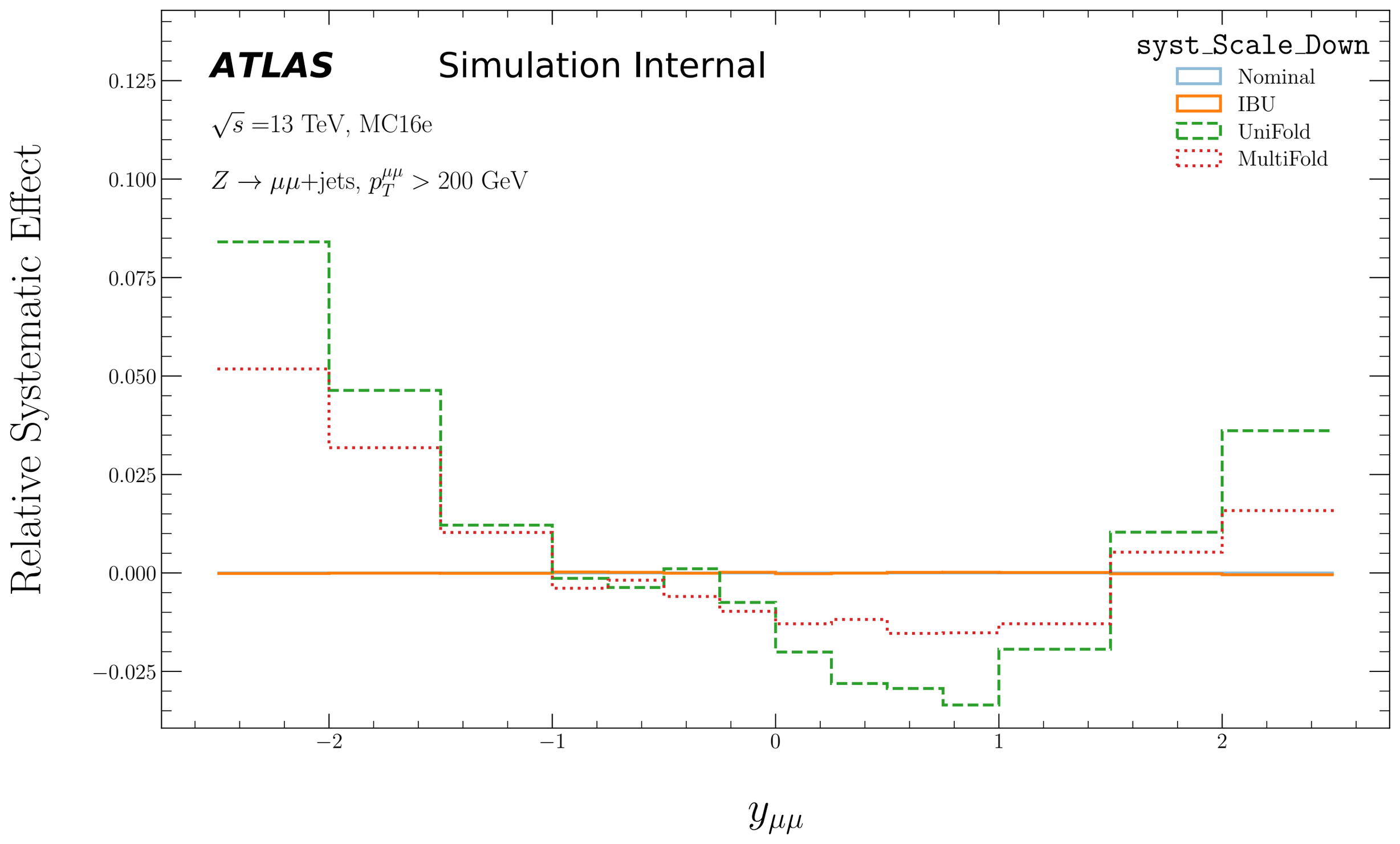

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
$y_{\mu\mu}$
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2

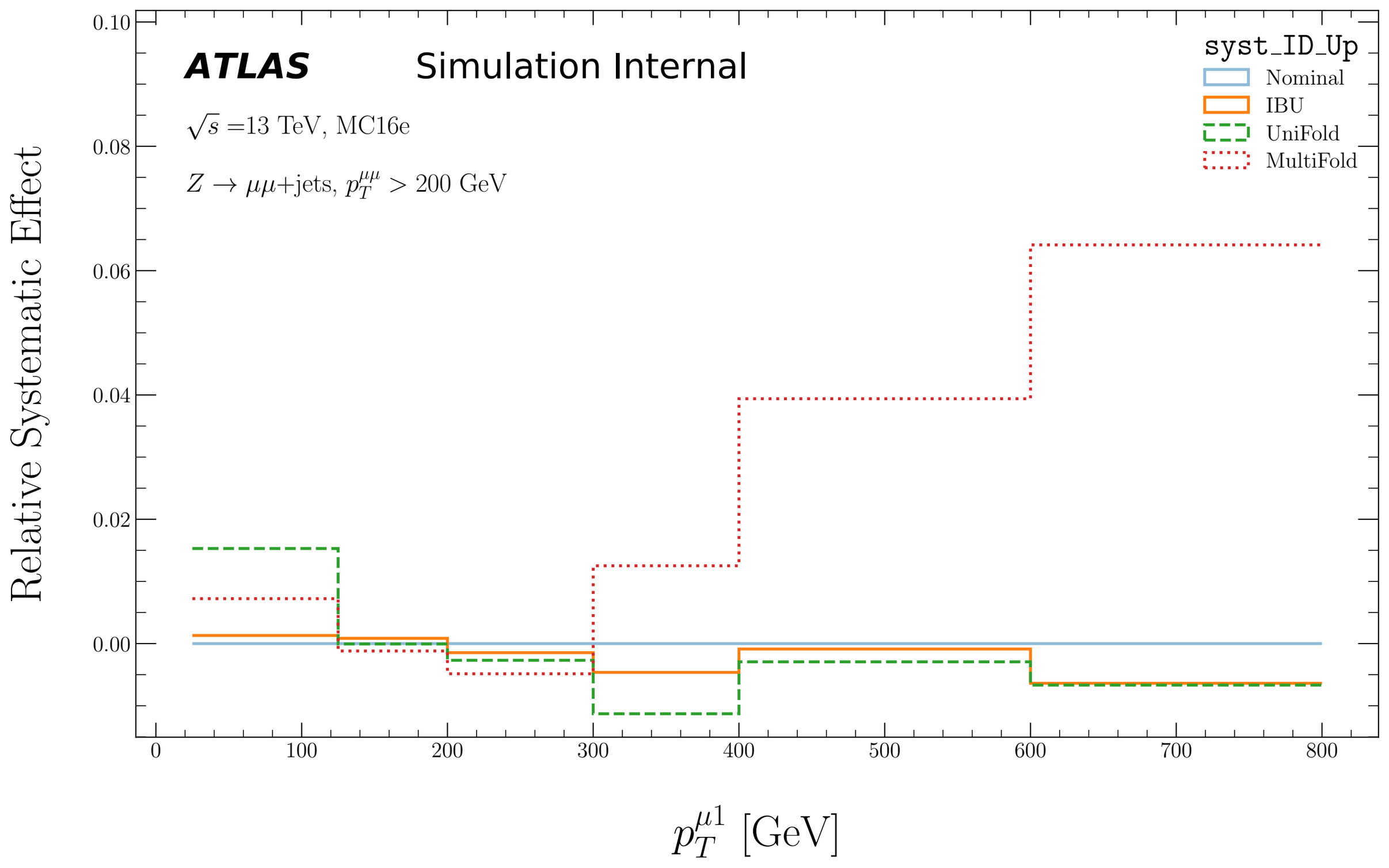

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$y_{\mu\mu}$

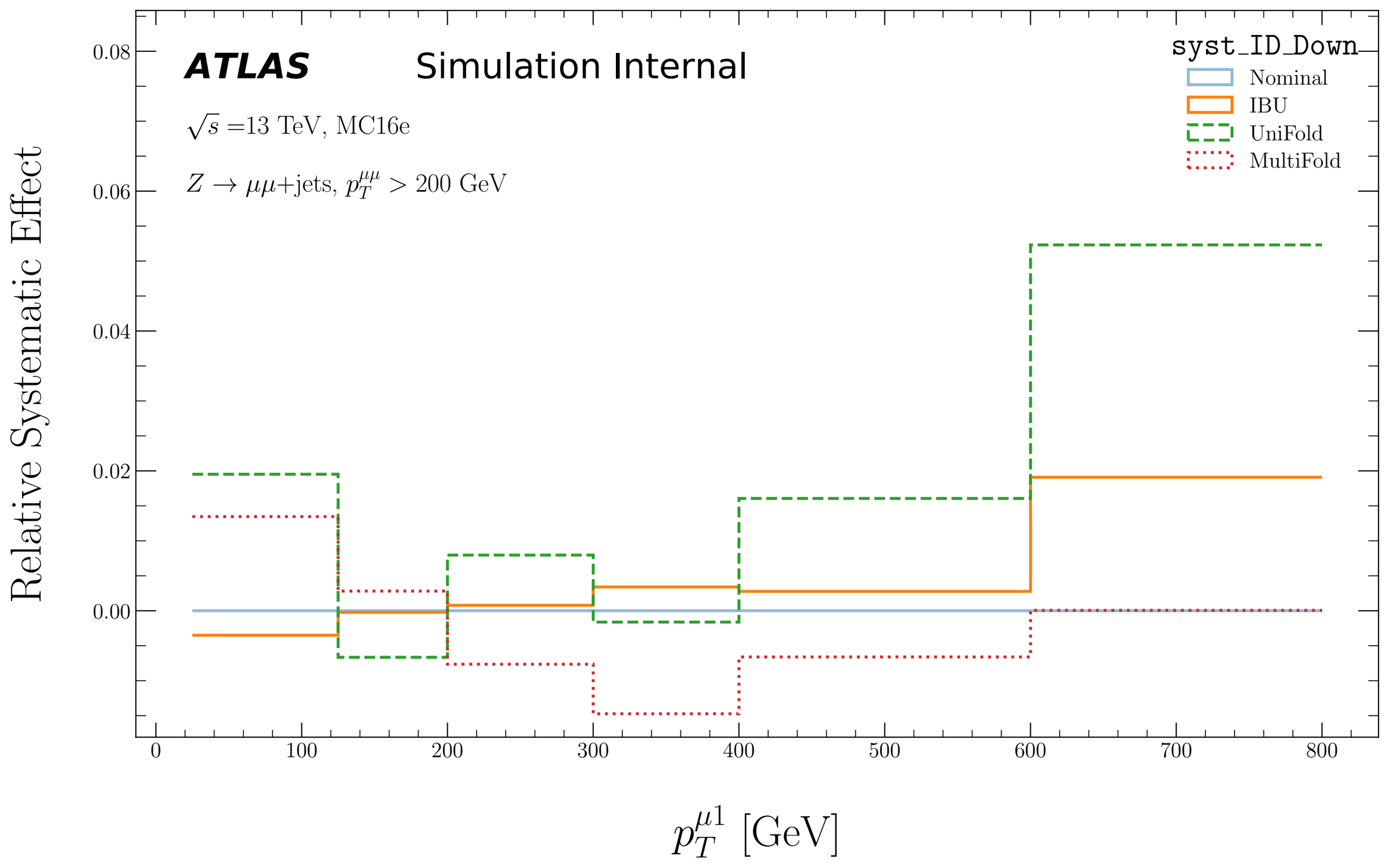

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
$y_{\mu\mu}$
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2

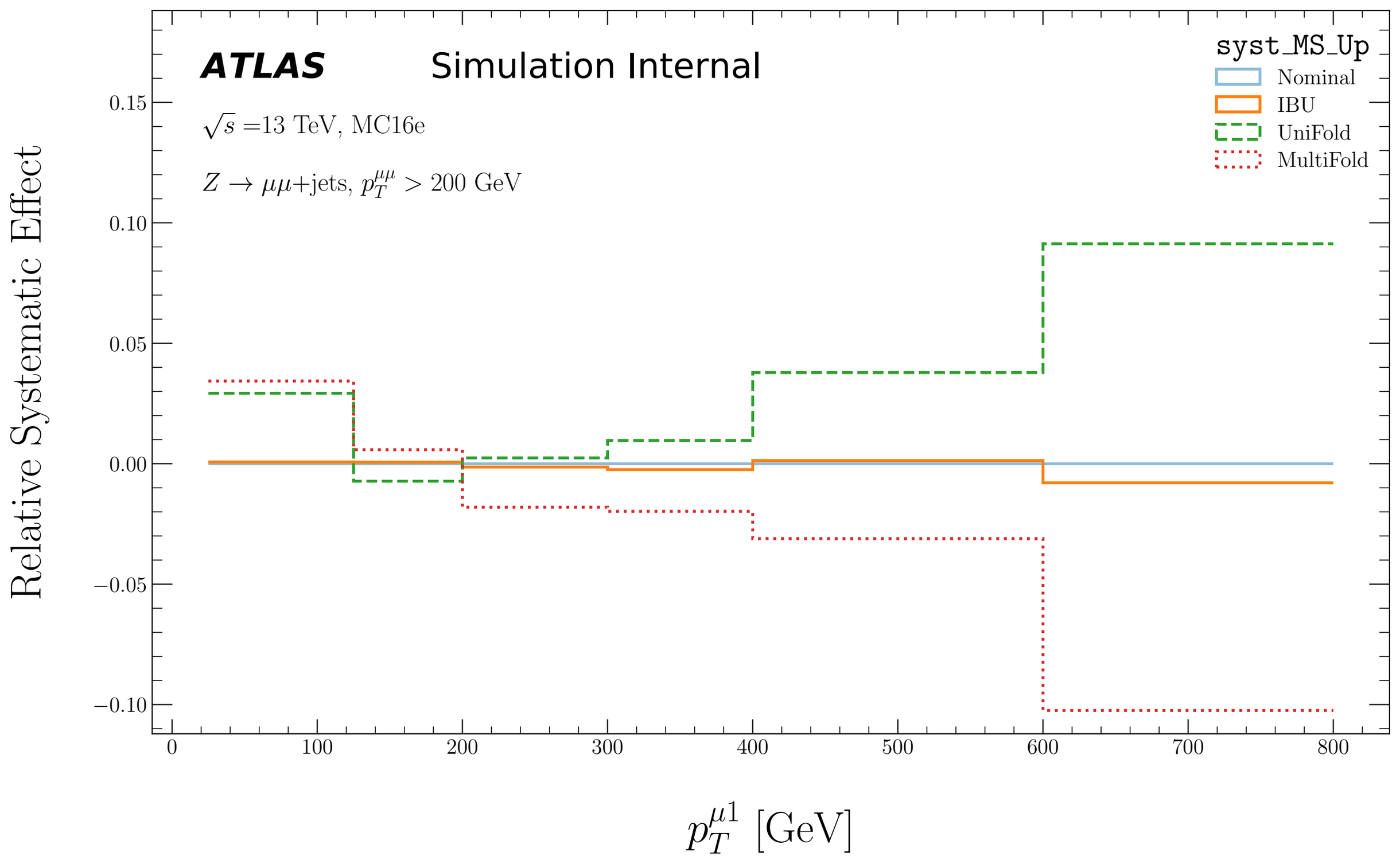

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
$y_{\mu\mu}$
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2

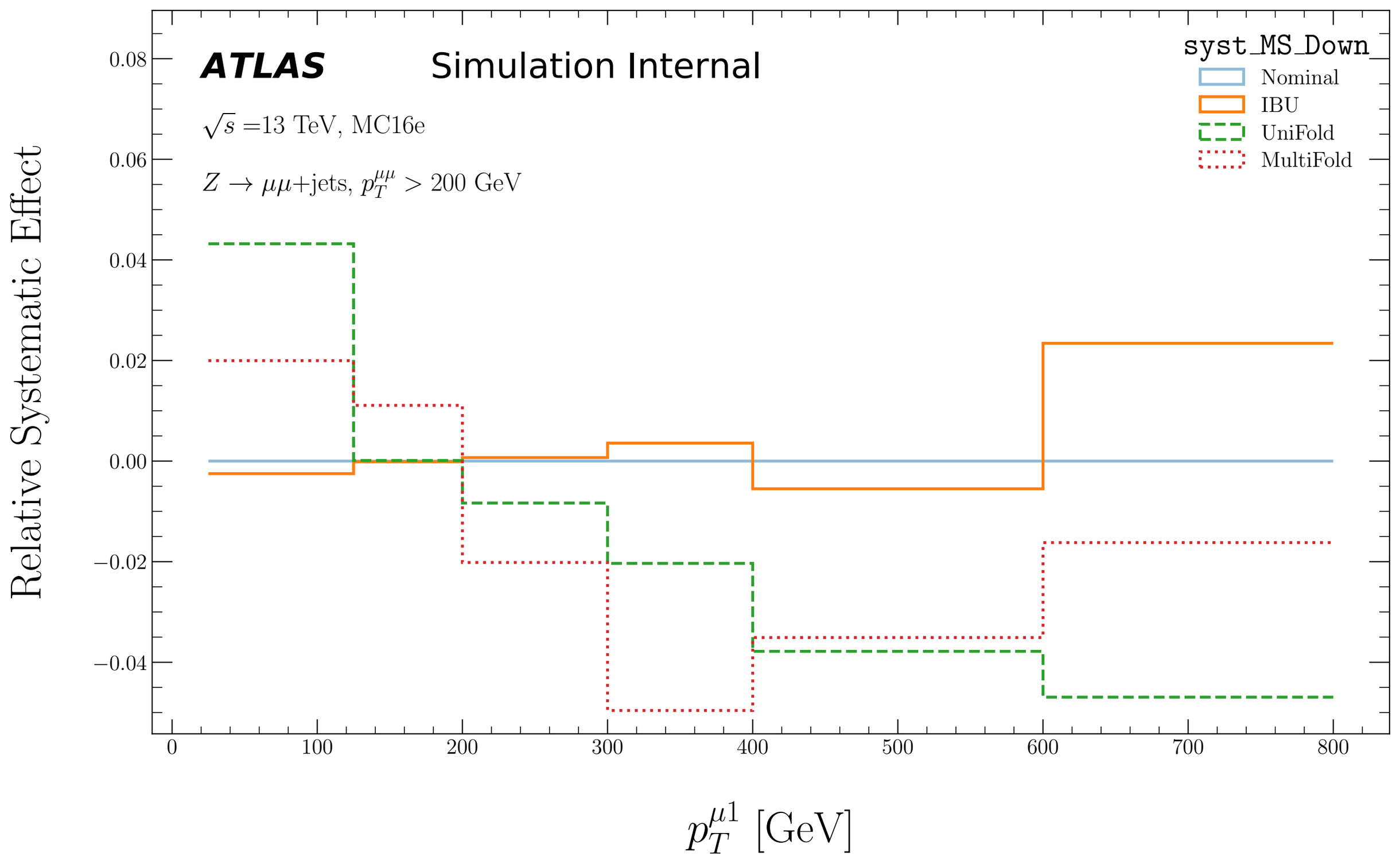

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
$y_{\mu\mu}$
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2

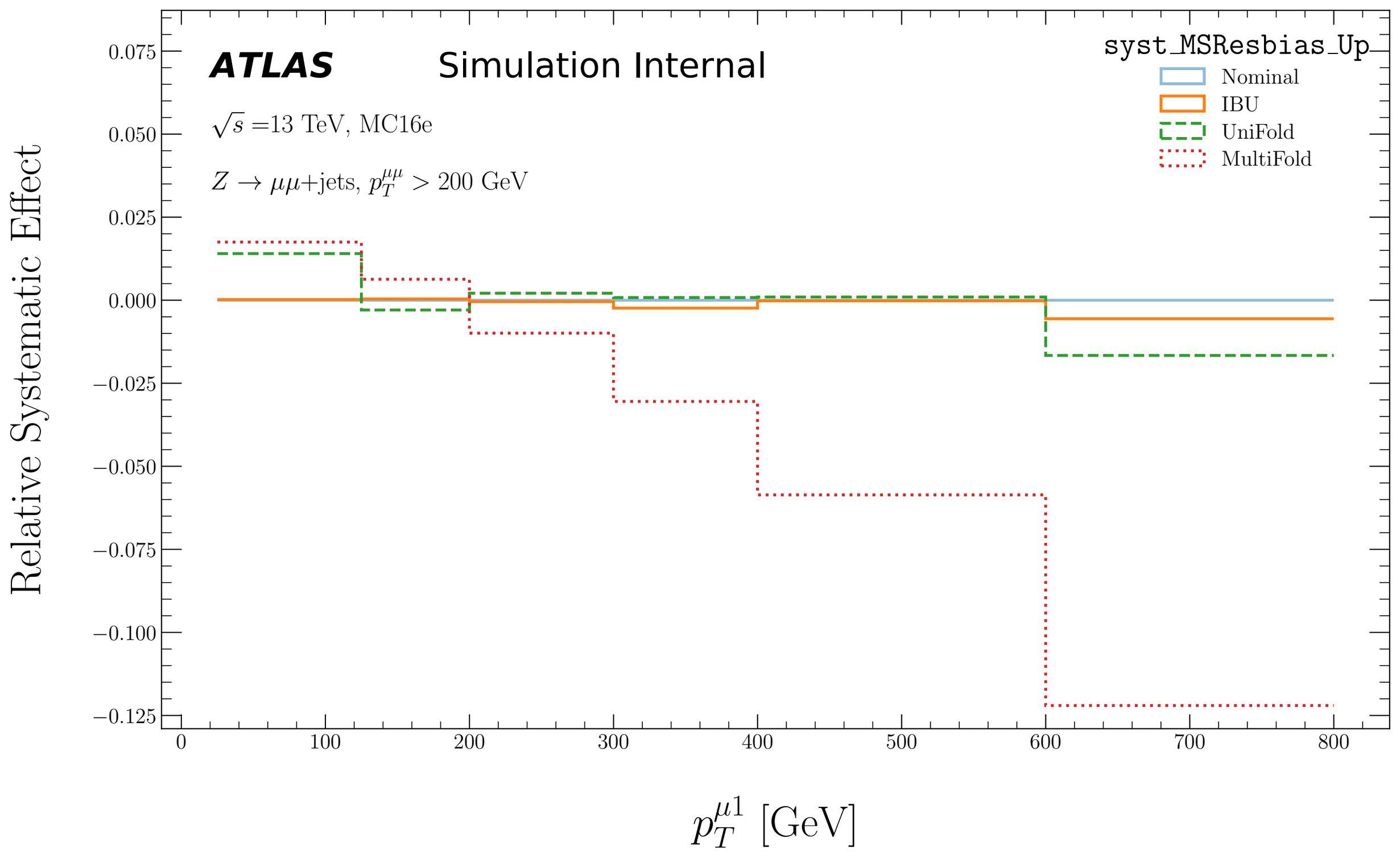

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−2
−1
0
1
2
$y_{\mu\mu}$

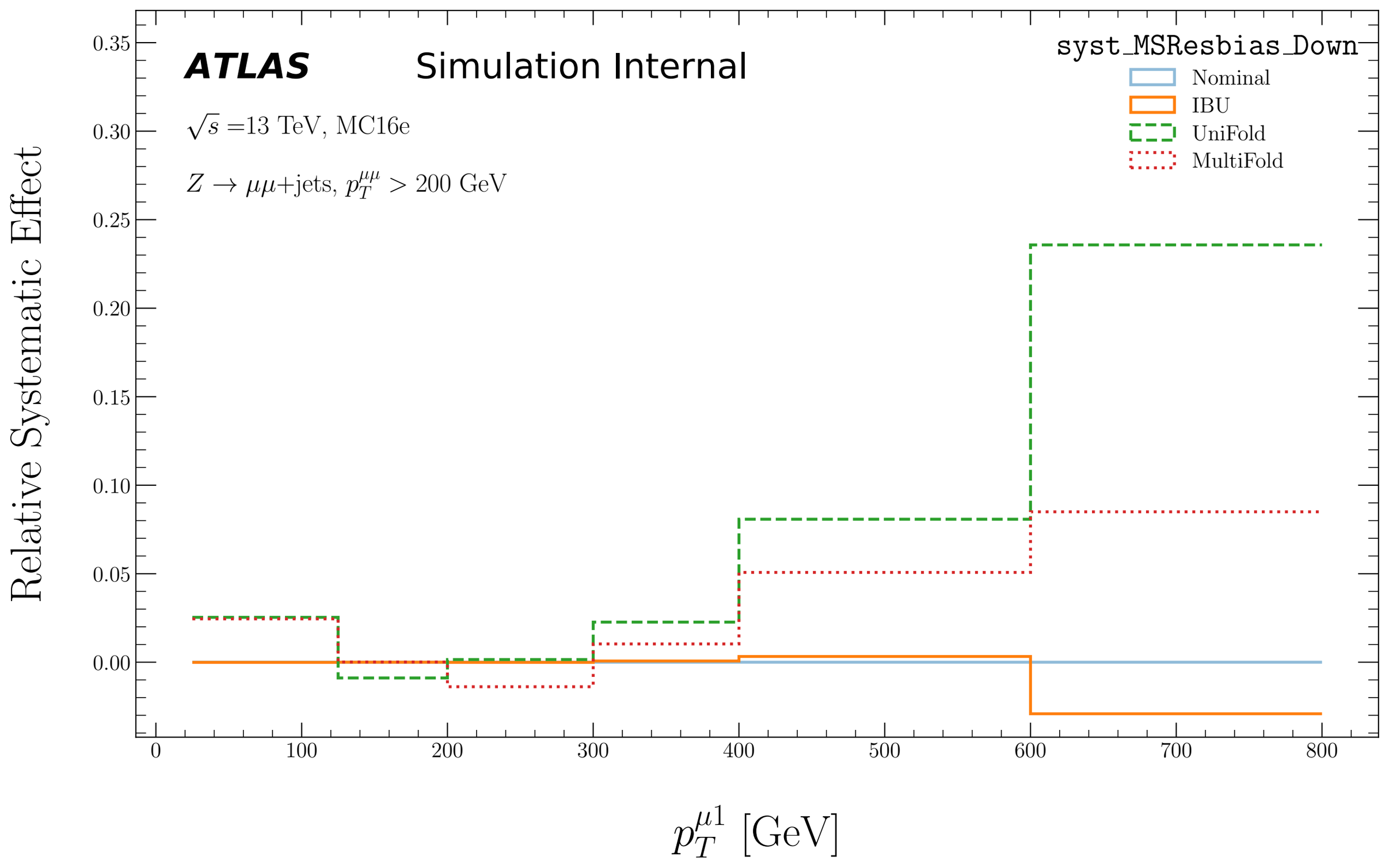

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

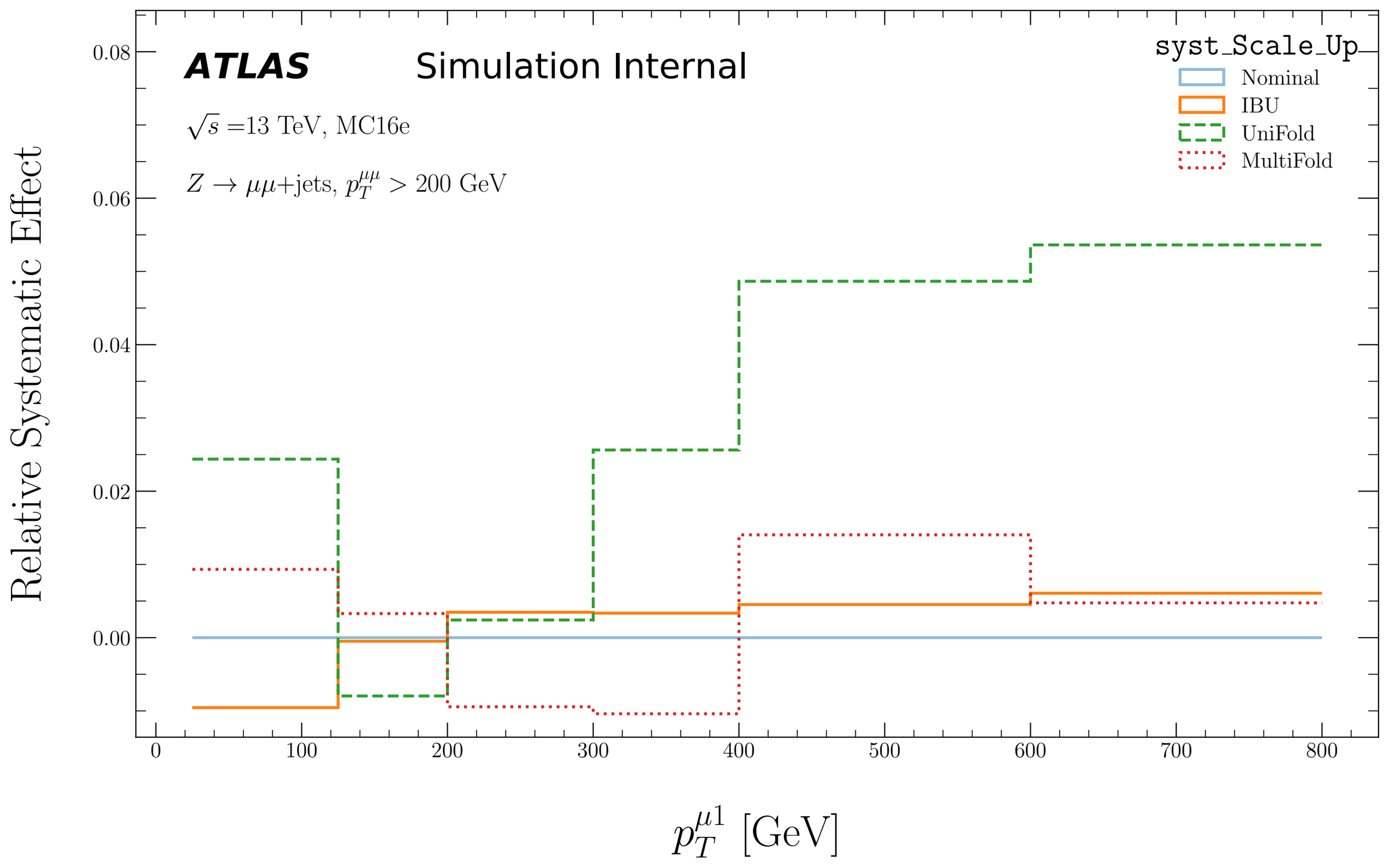

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

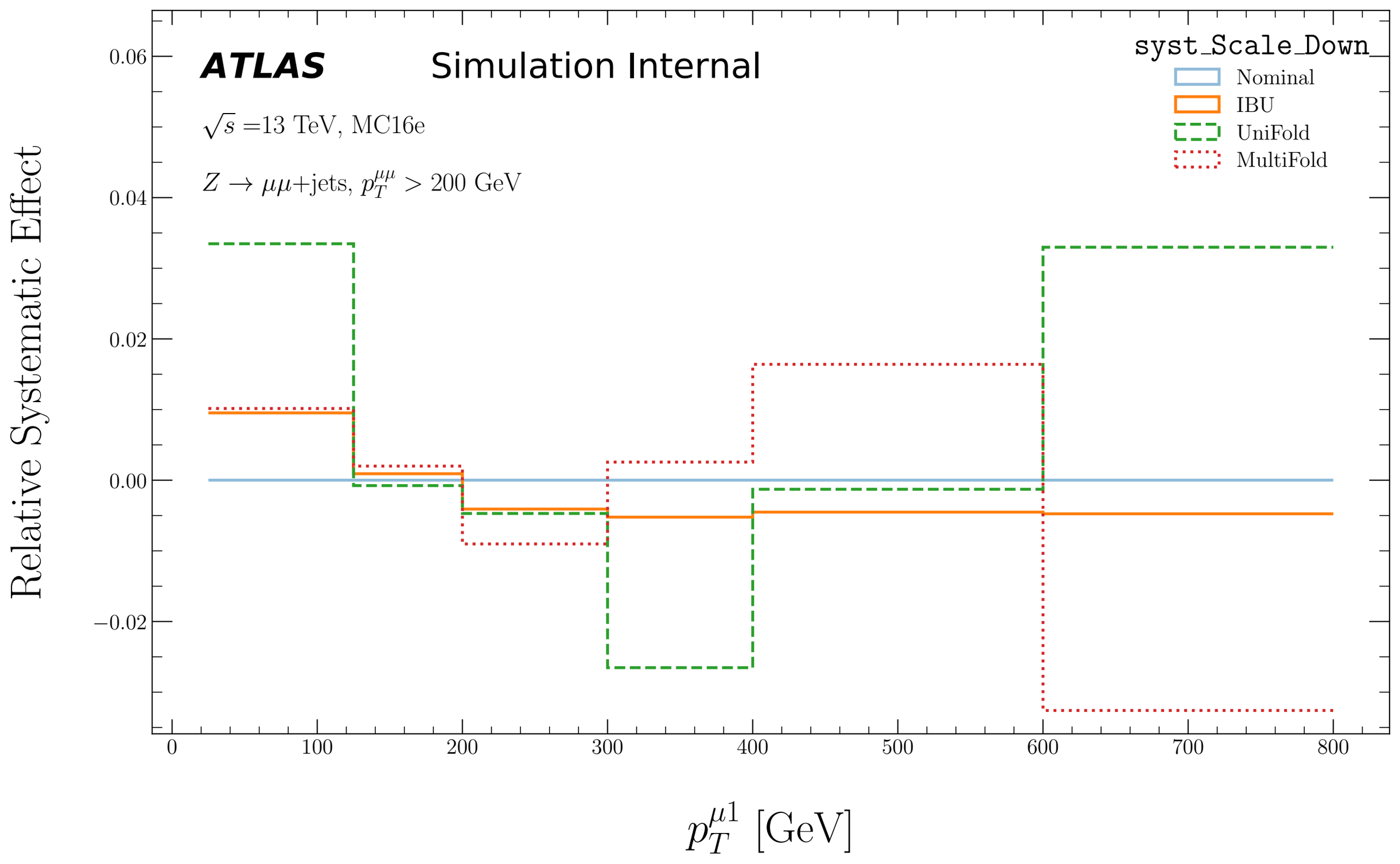

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.15
0.10
0.05
0.00
−0.05
−0.10
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

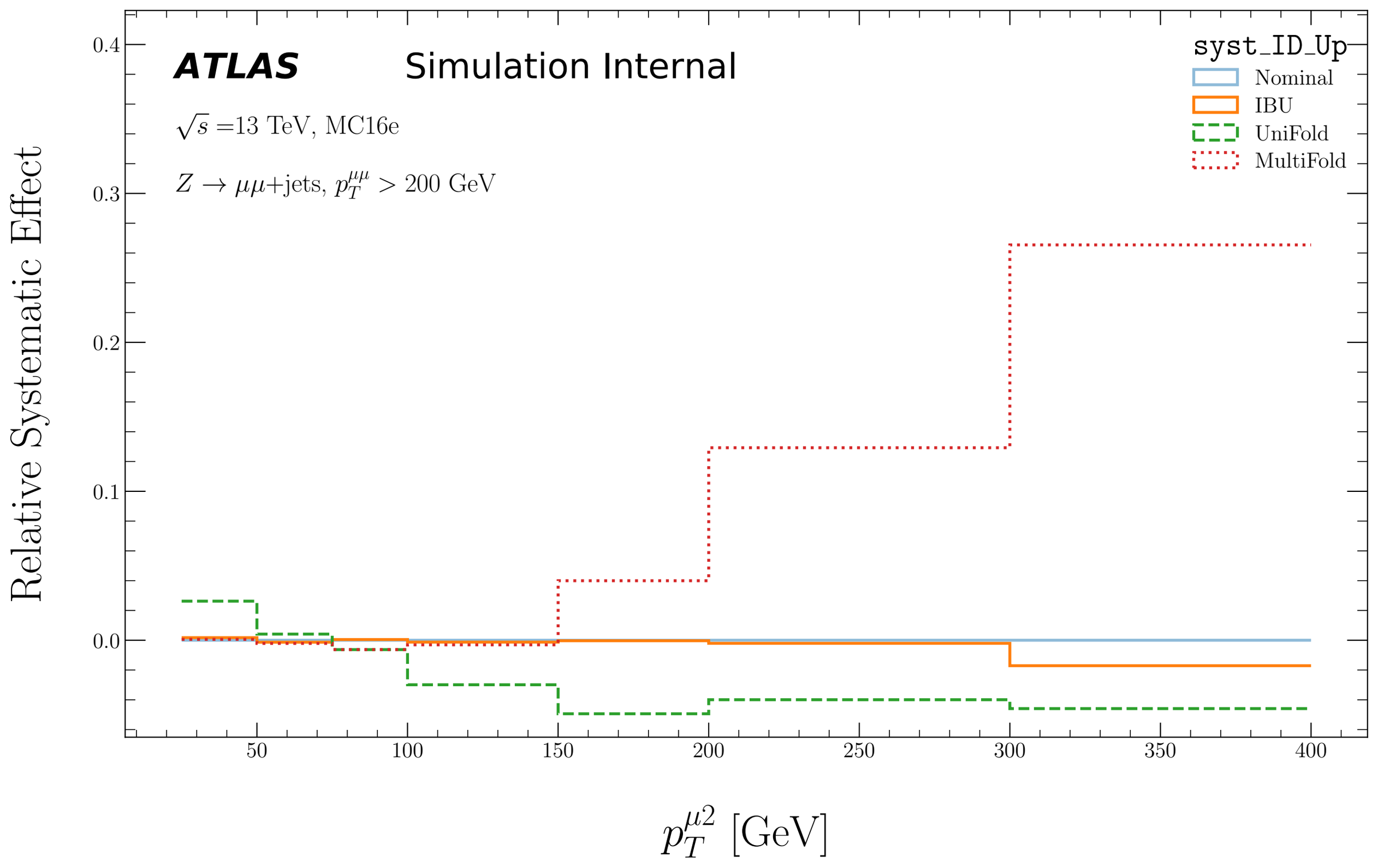

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

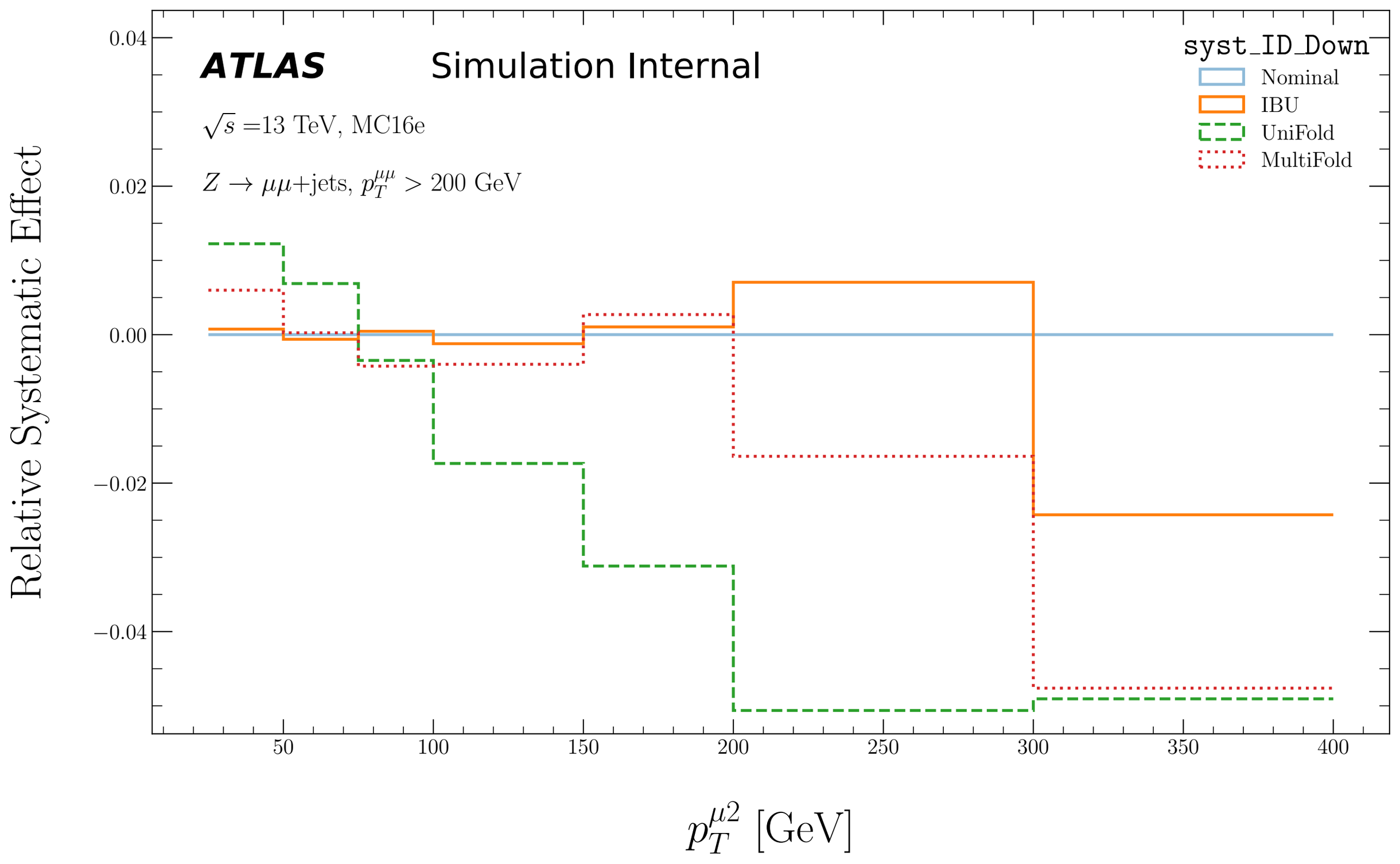

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

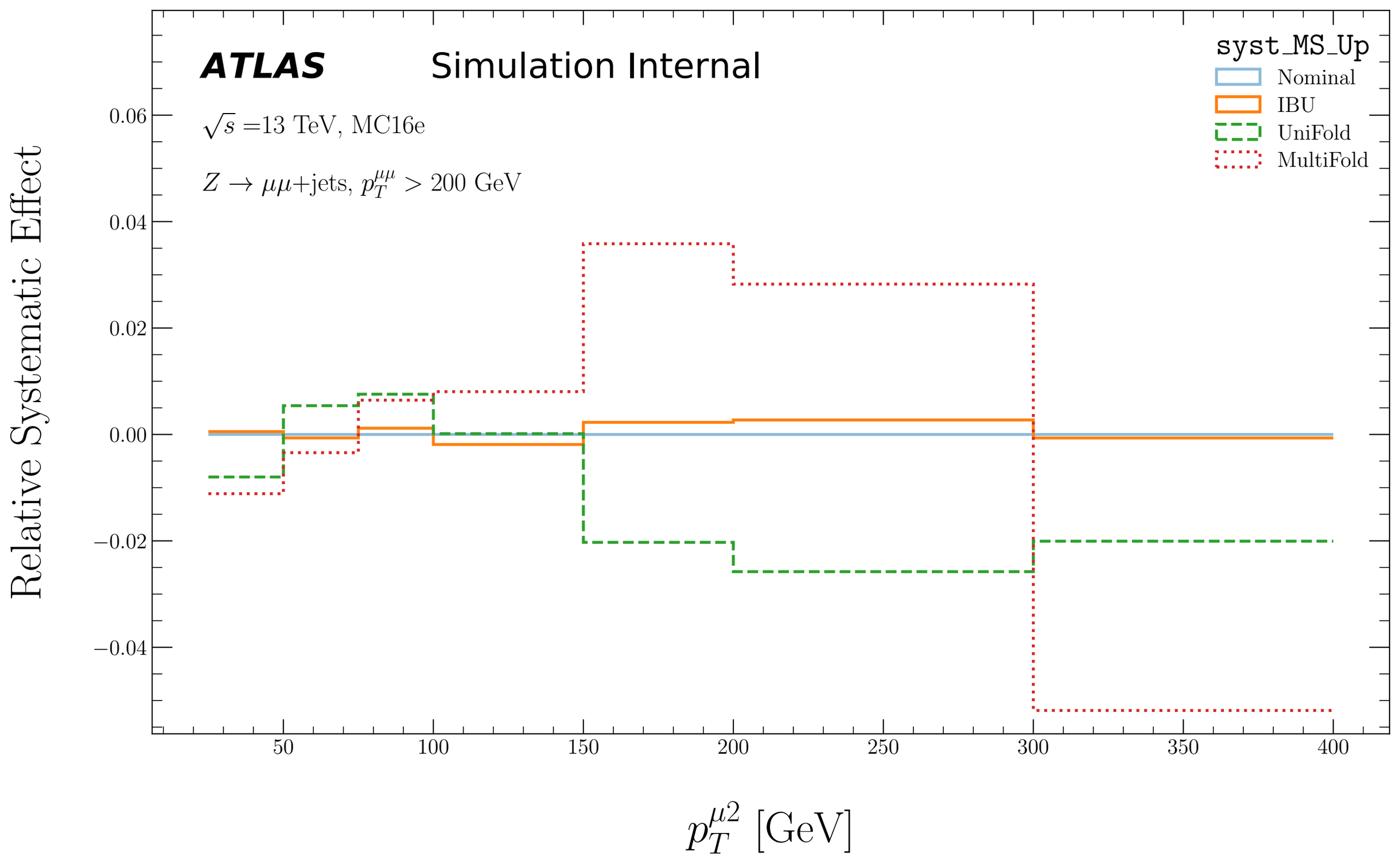

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
$p_T^{\mu 1}$ [GeV]
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
100
200
300
400
500
600
700
800

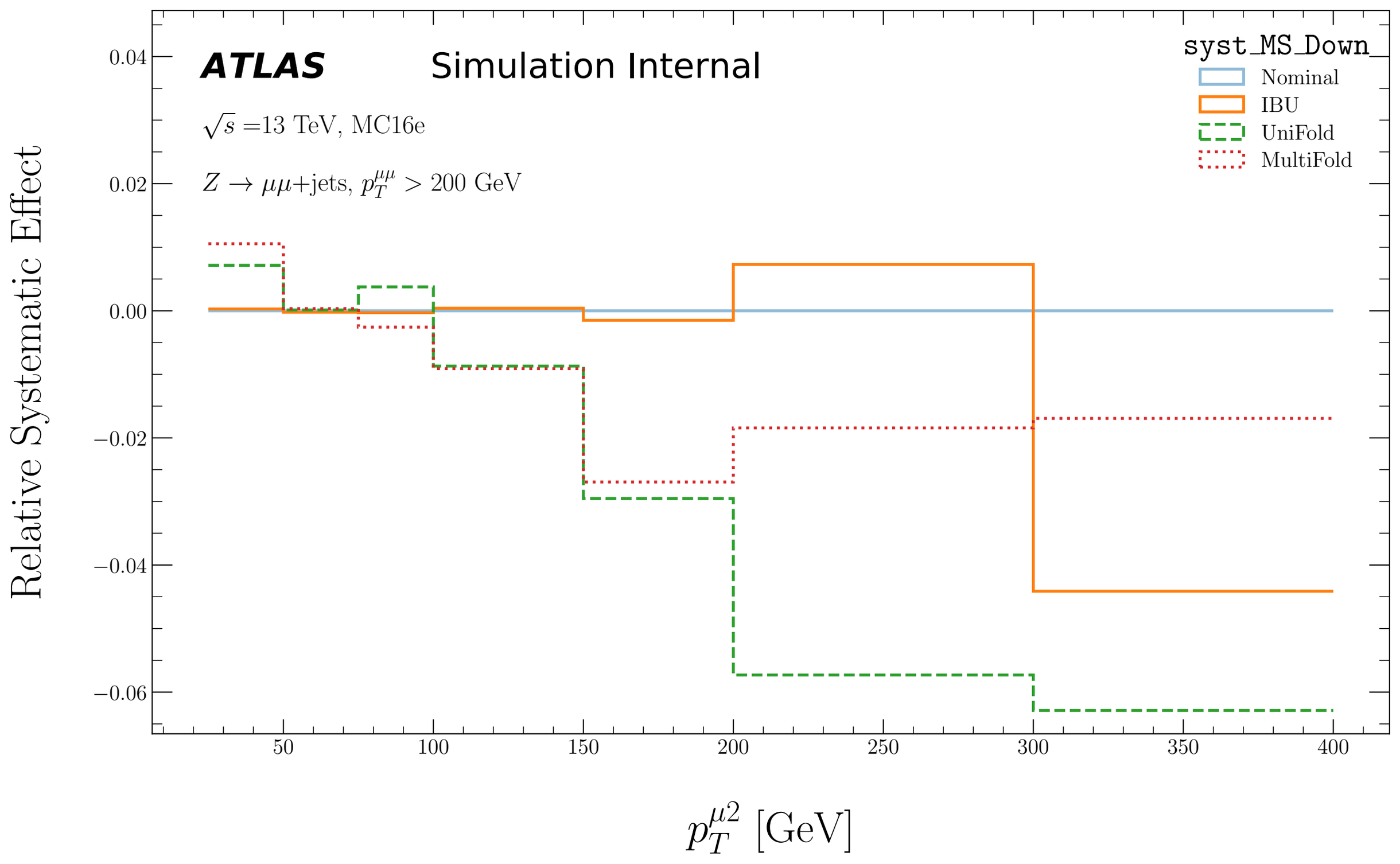

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

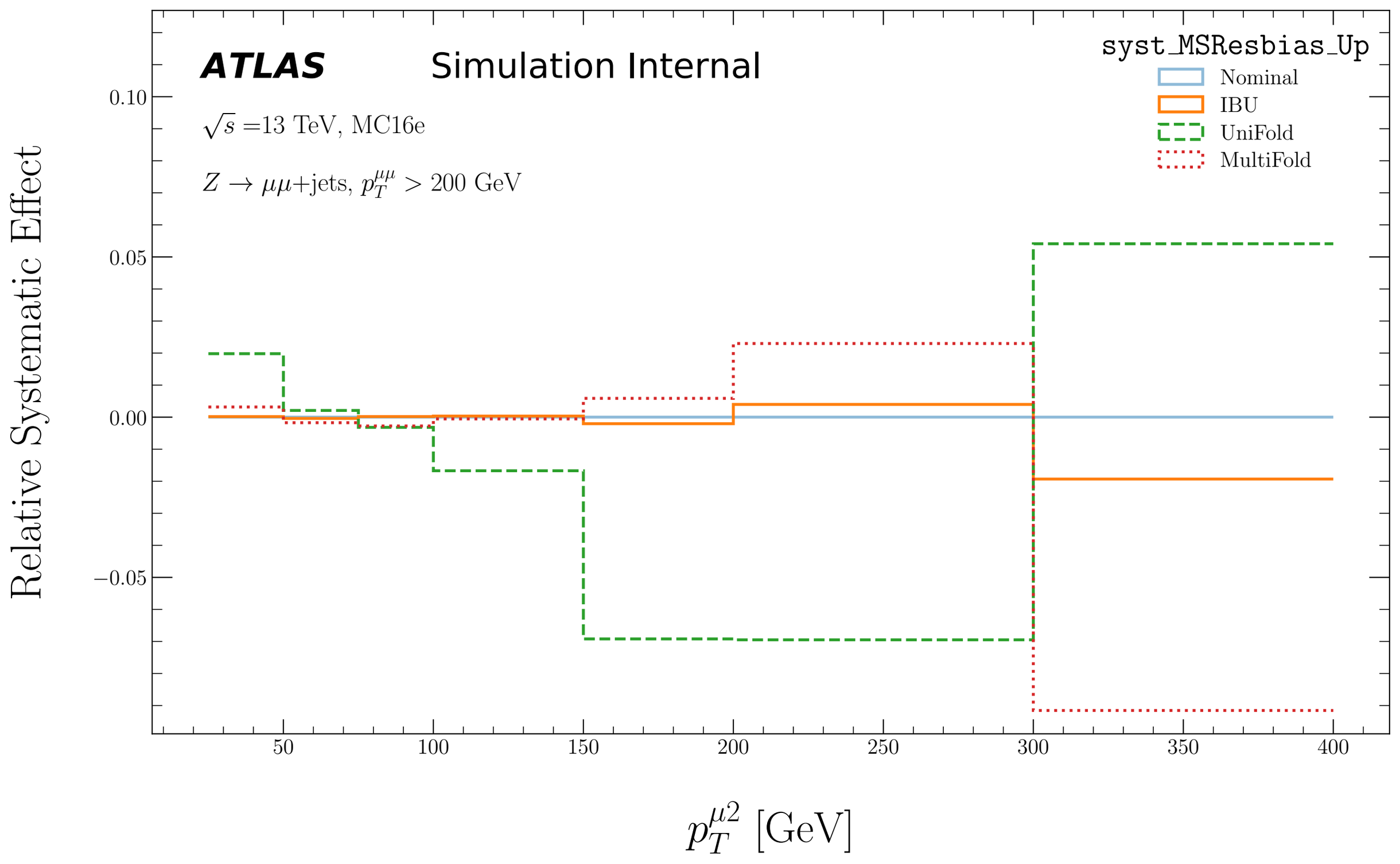

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
0
100
200
300
400
500
600
700
800
$p_T^{\mu 1}$ [GeV]

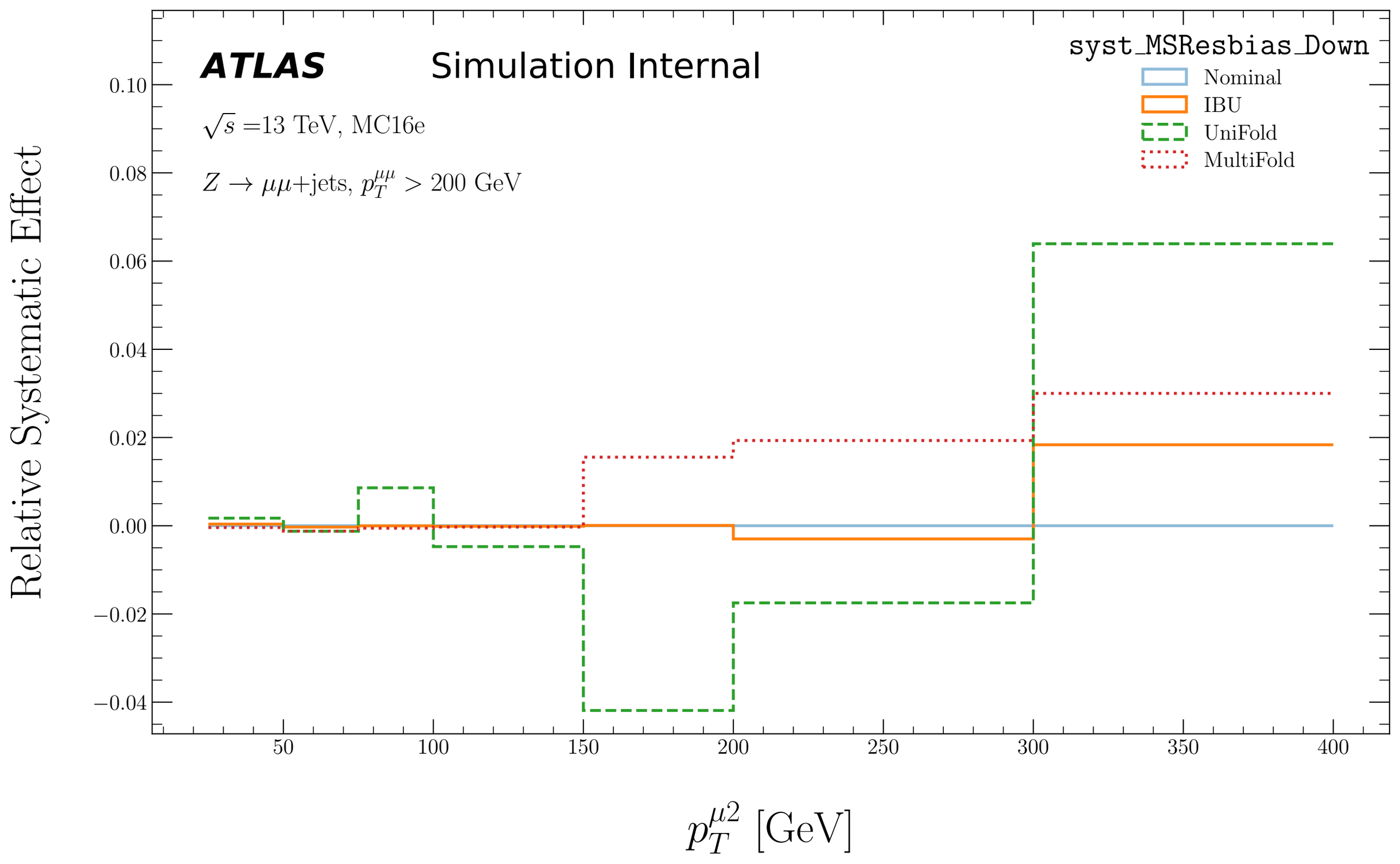

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.4
0.3
0.2
0.1
0.0
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

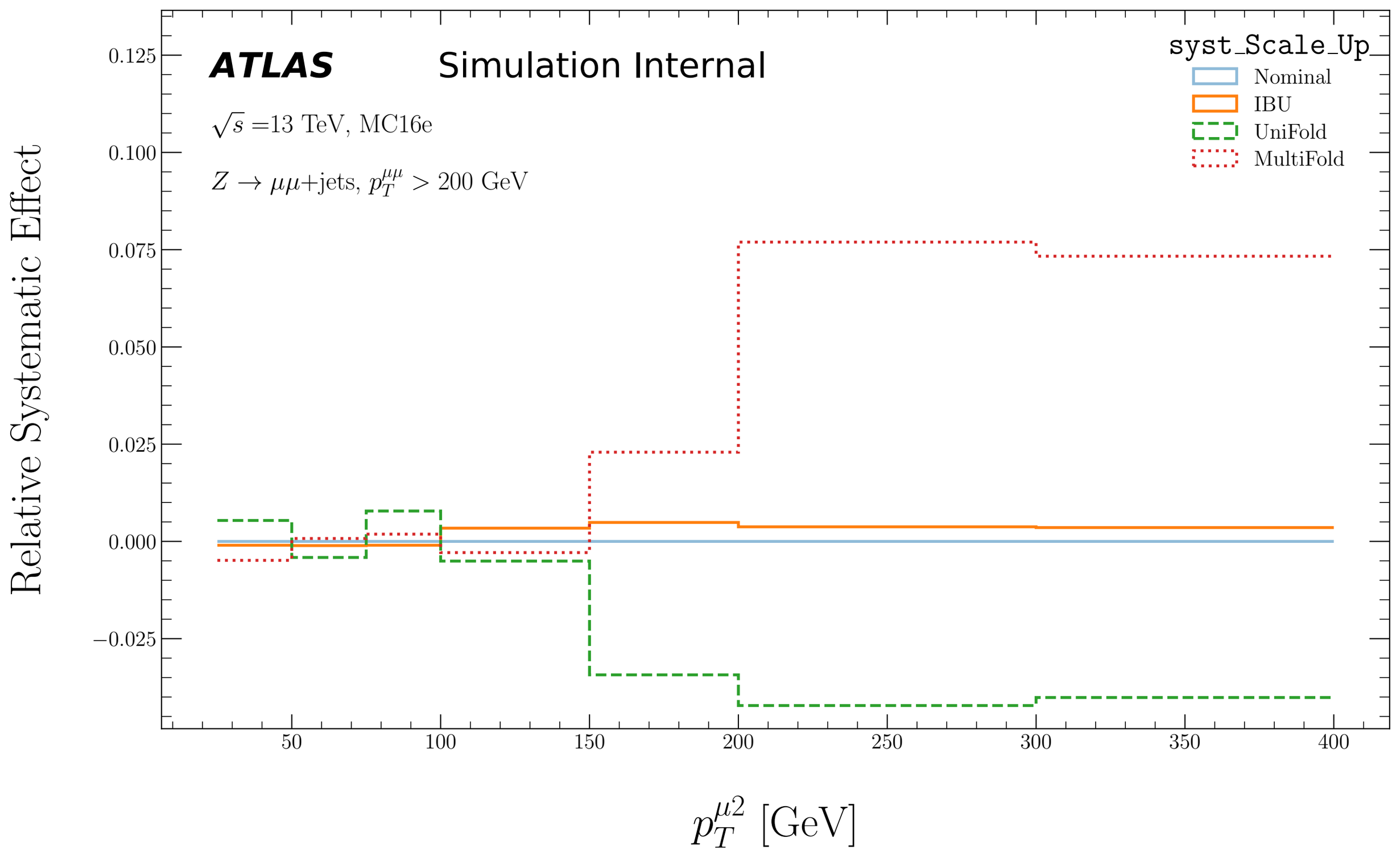

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

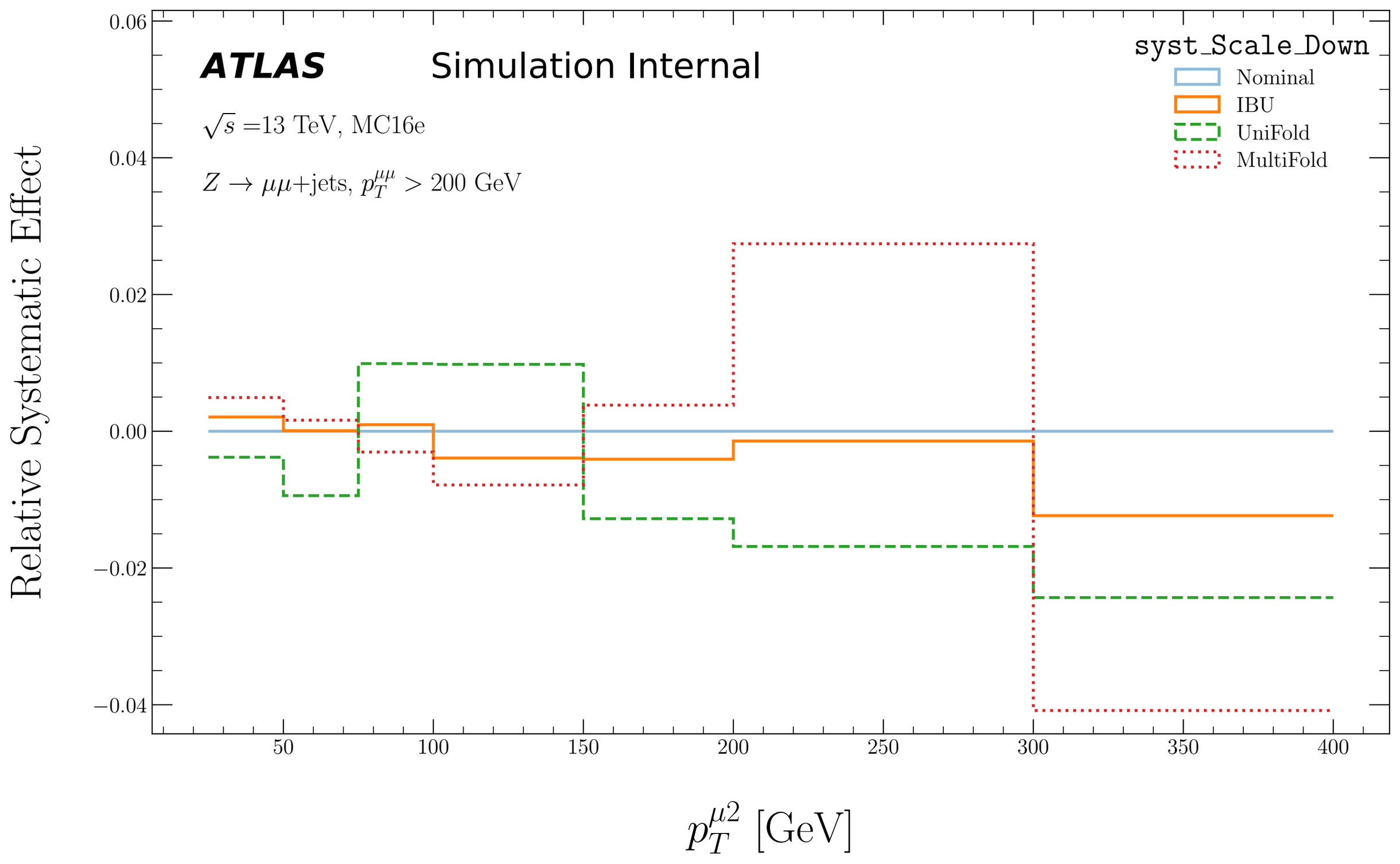

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

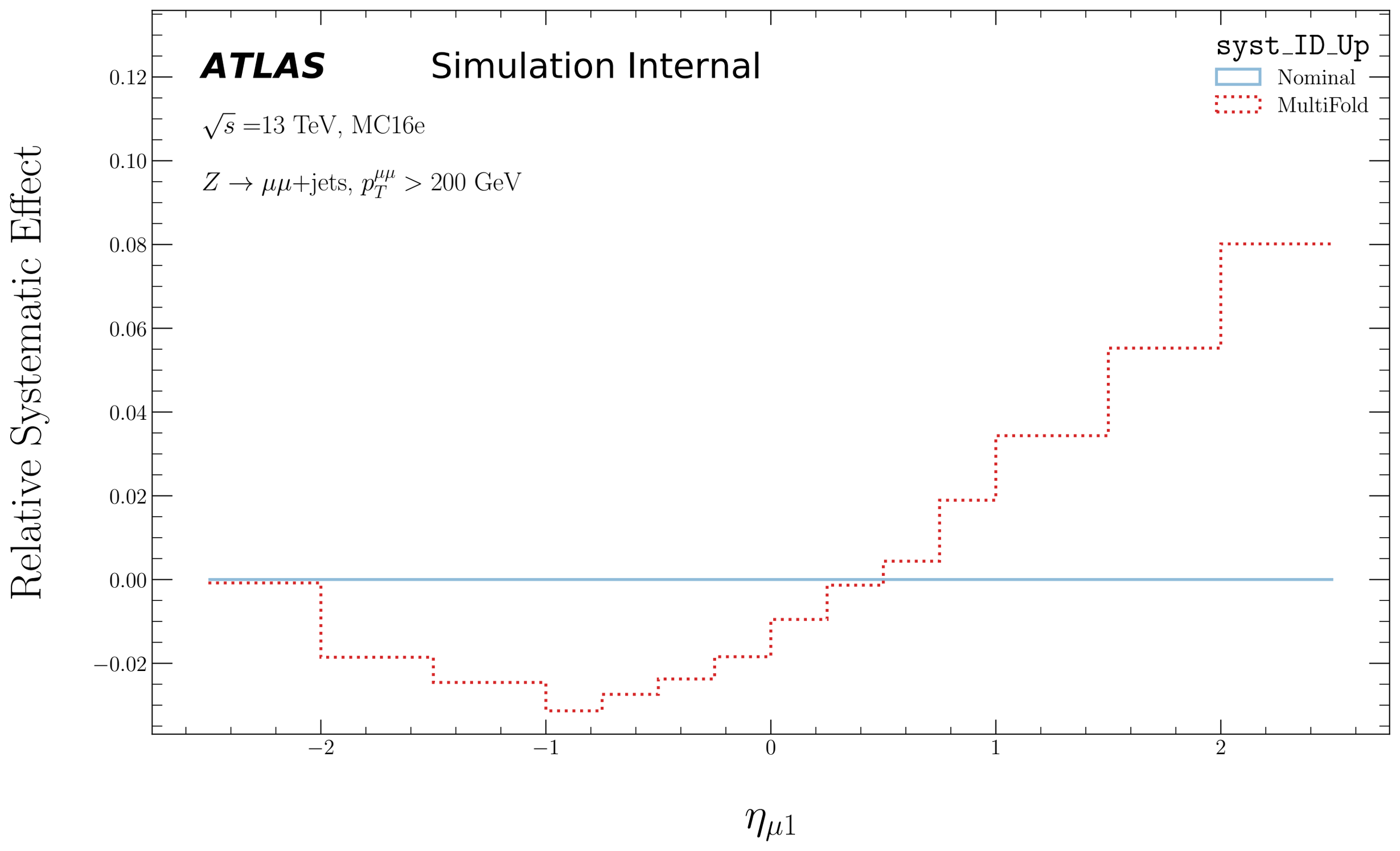

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.04
0.02
0.00
−0.02
−0.04
−0.06
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

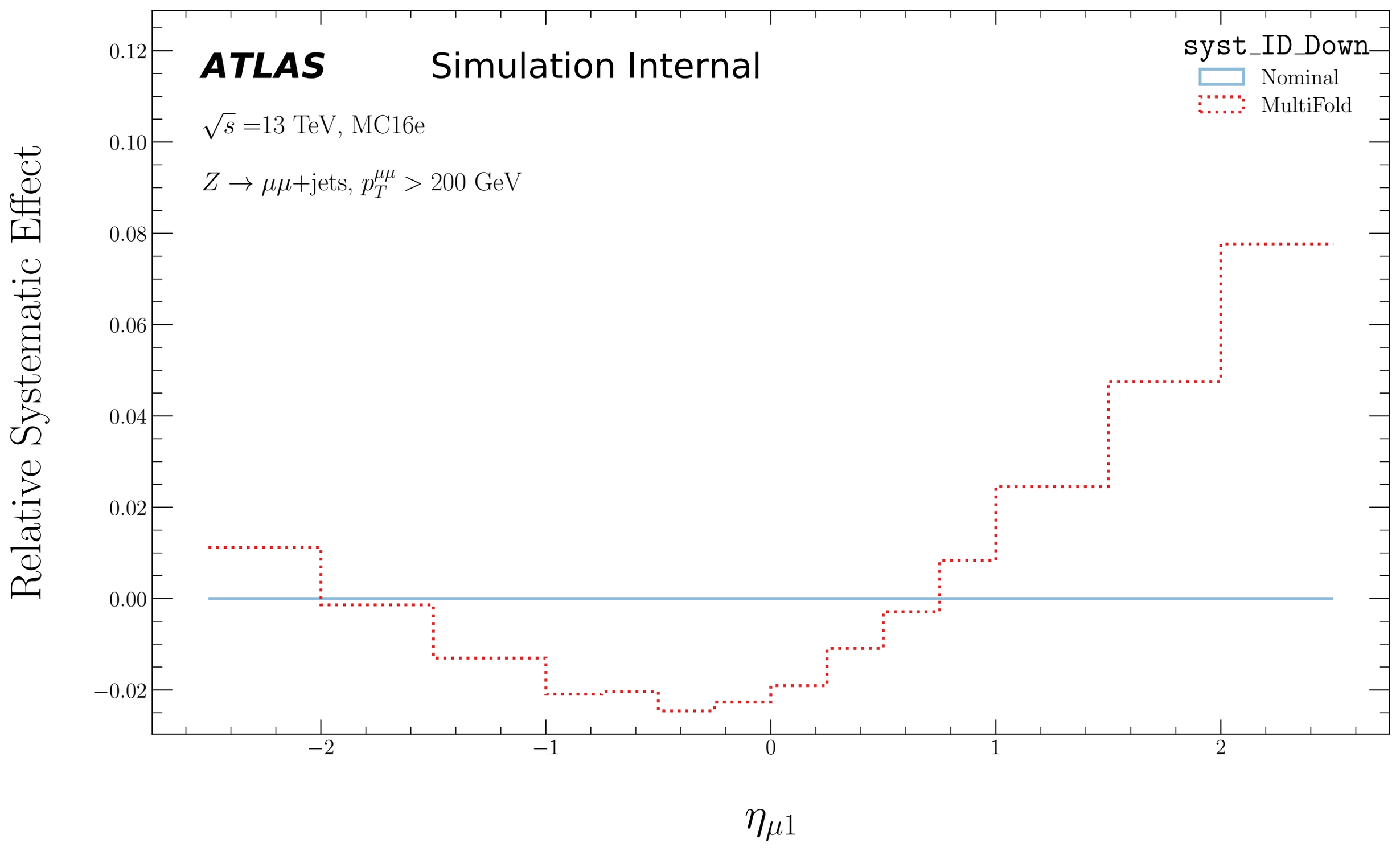

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.10
0.05
0.00
−0.05
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

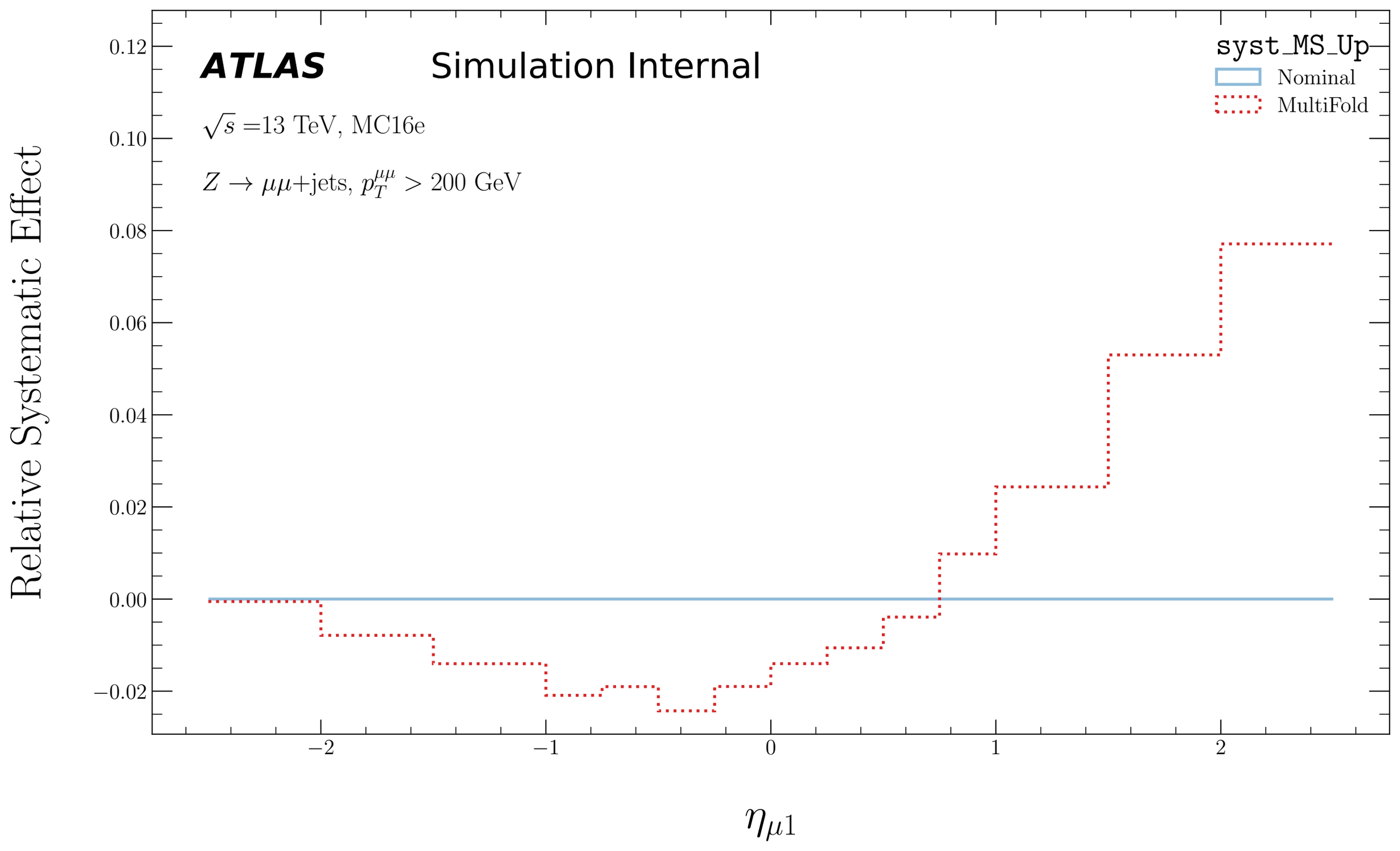

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

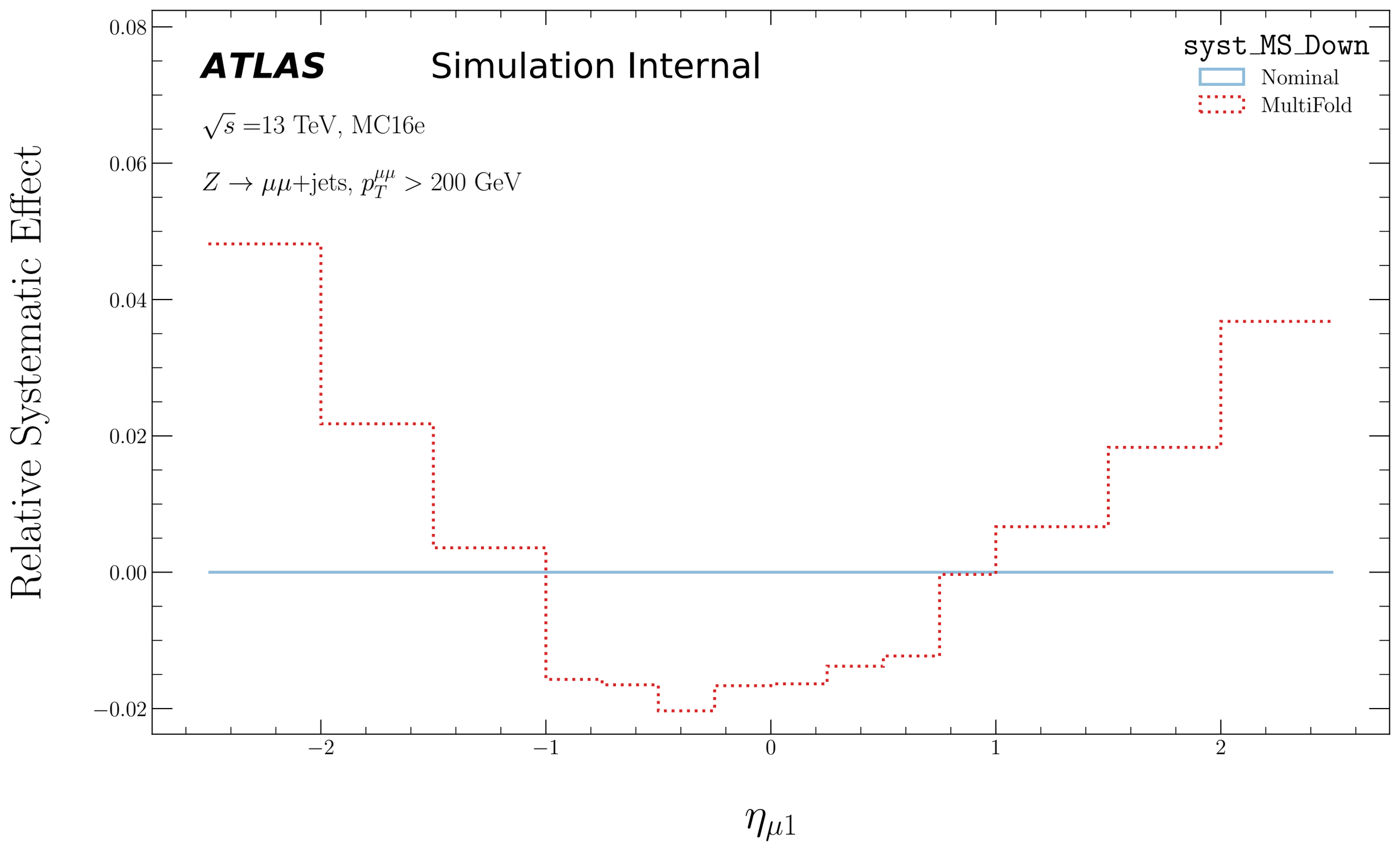

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

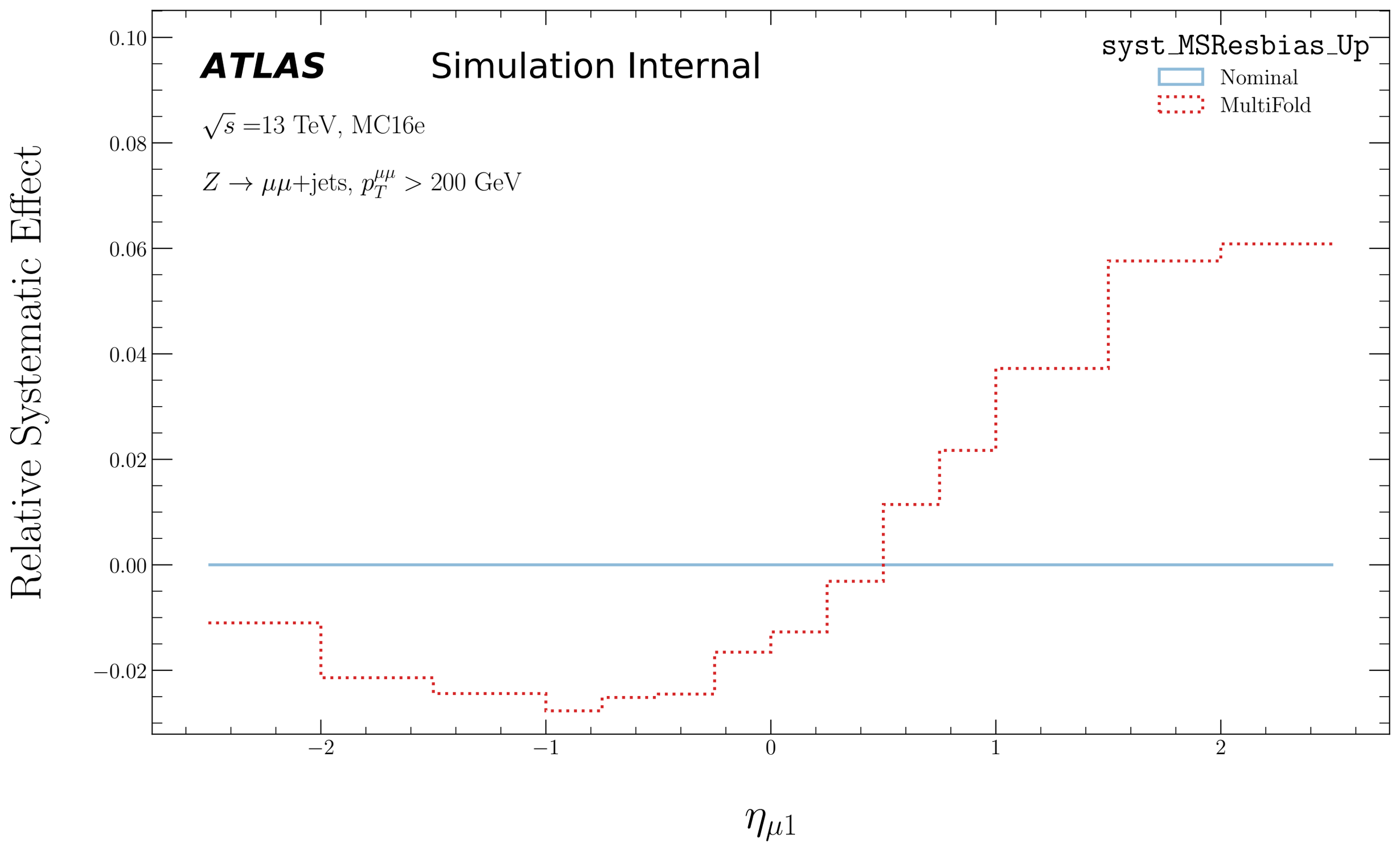

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
IBU
UniFold
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
50
100
150
200
250
300
350
400
$p_T^{\mu 2}$ [GeV]

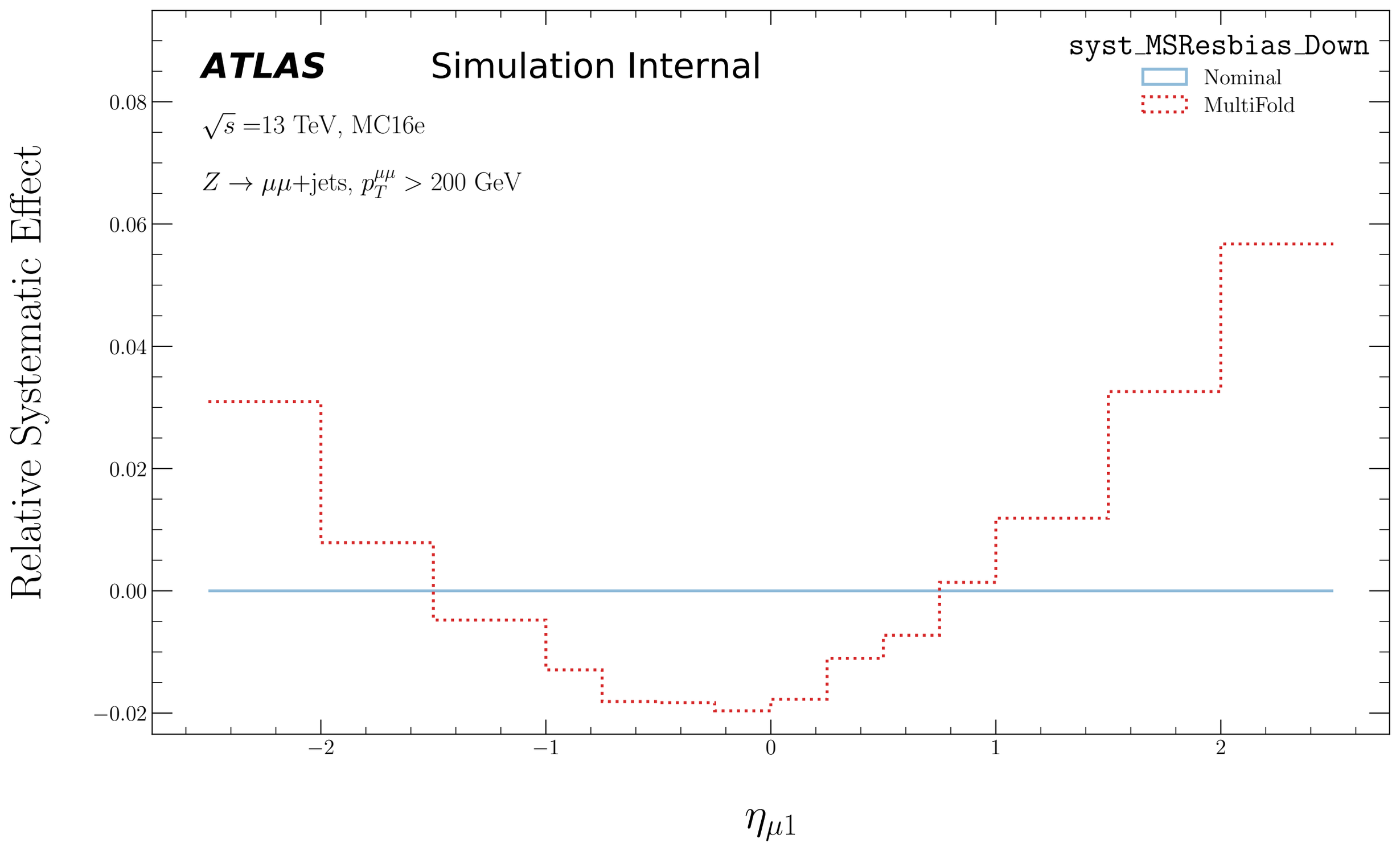

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$

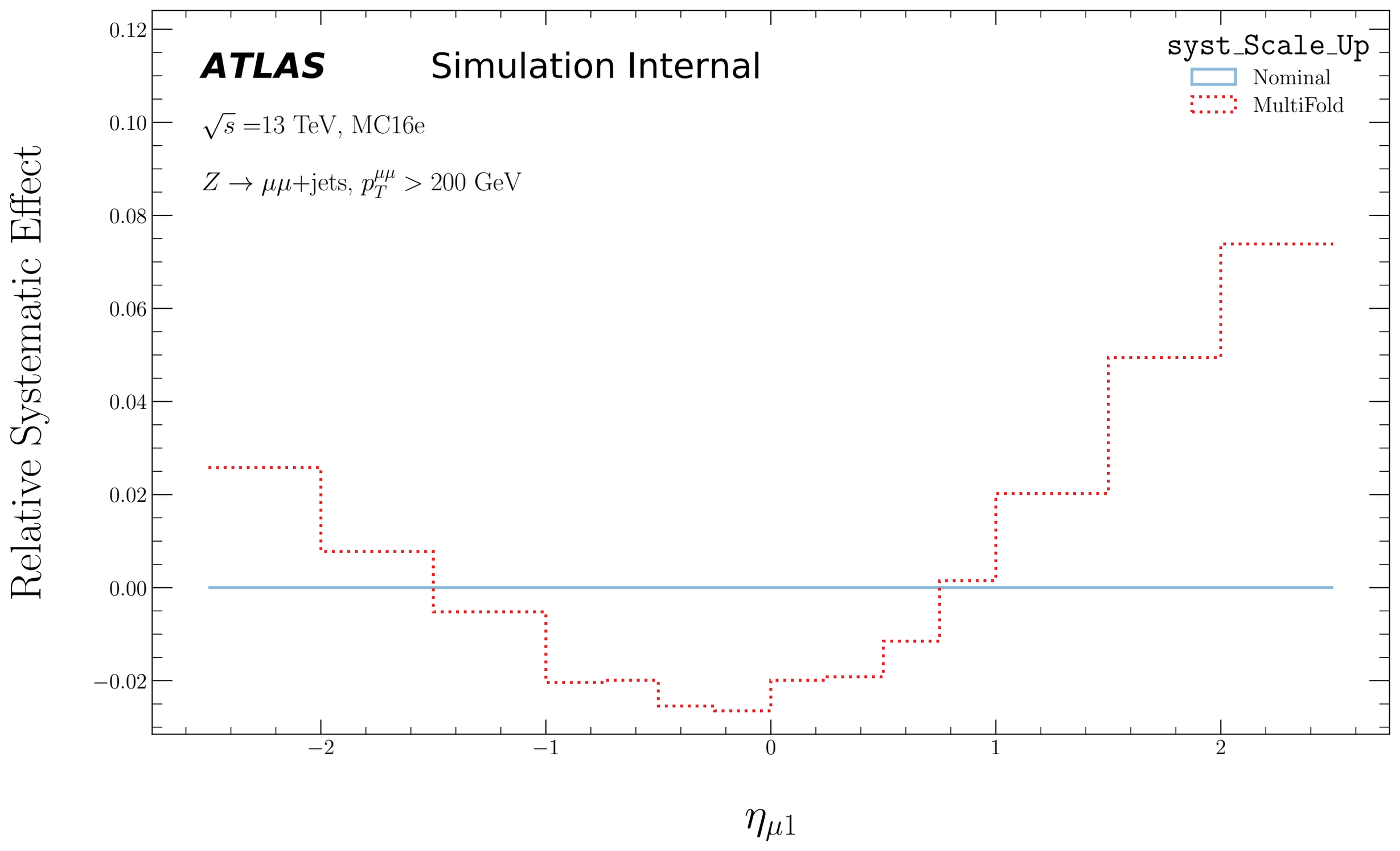

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$

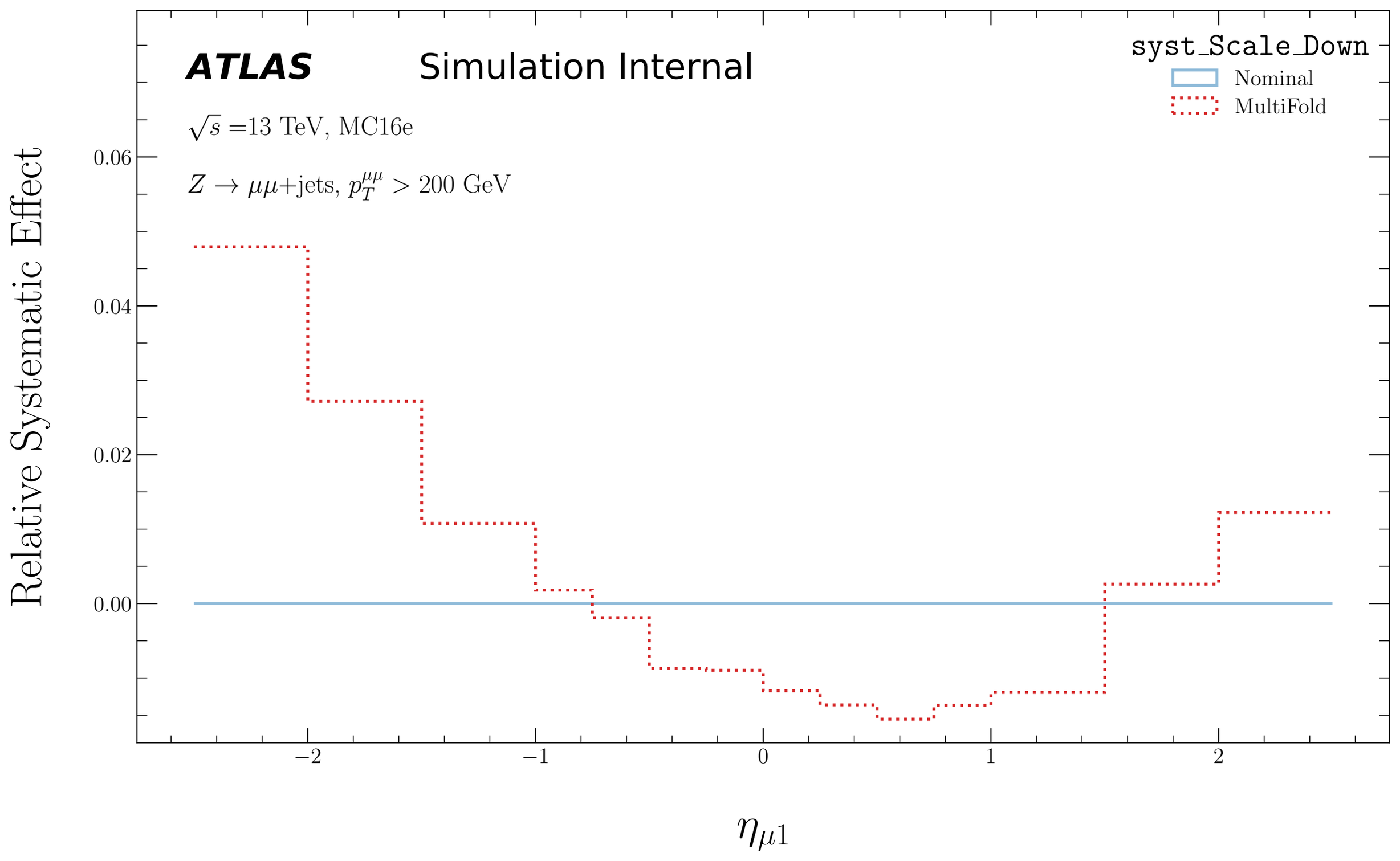

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$

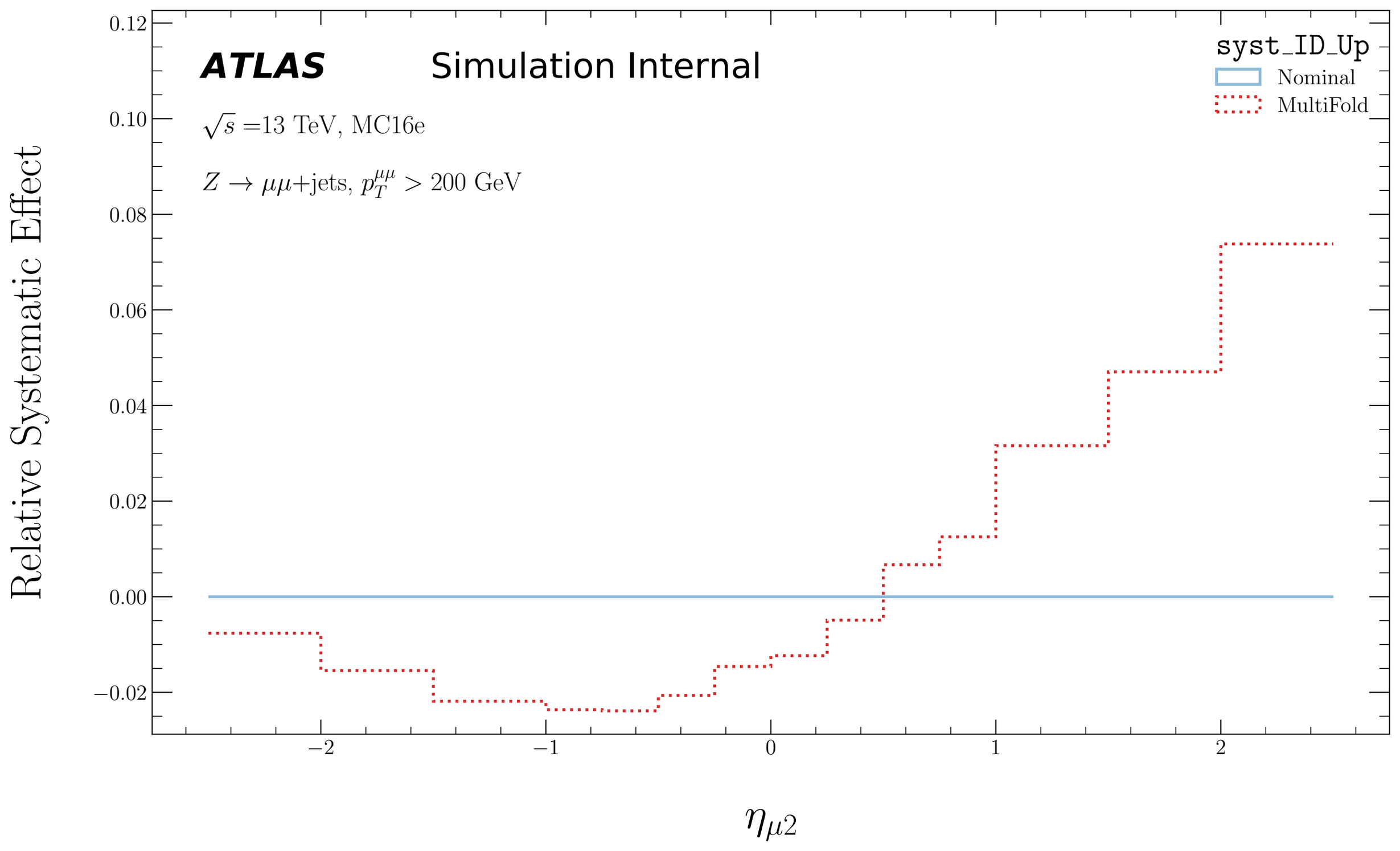

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$

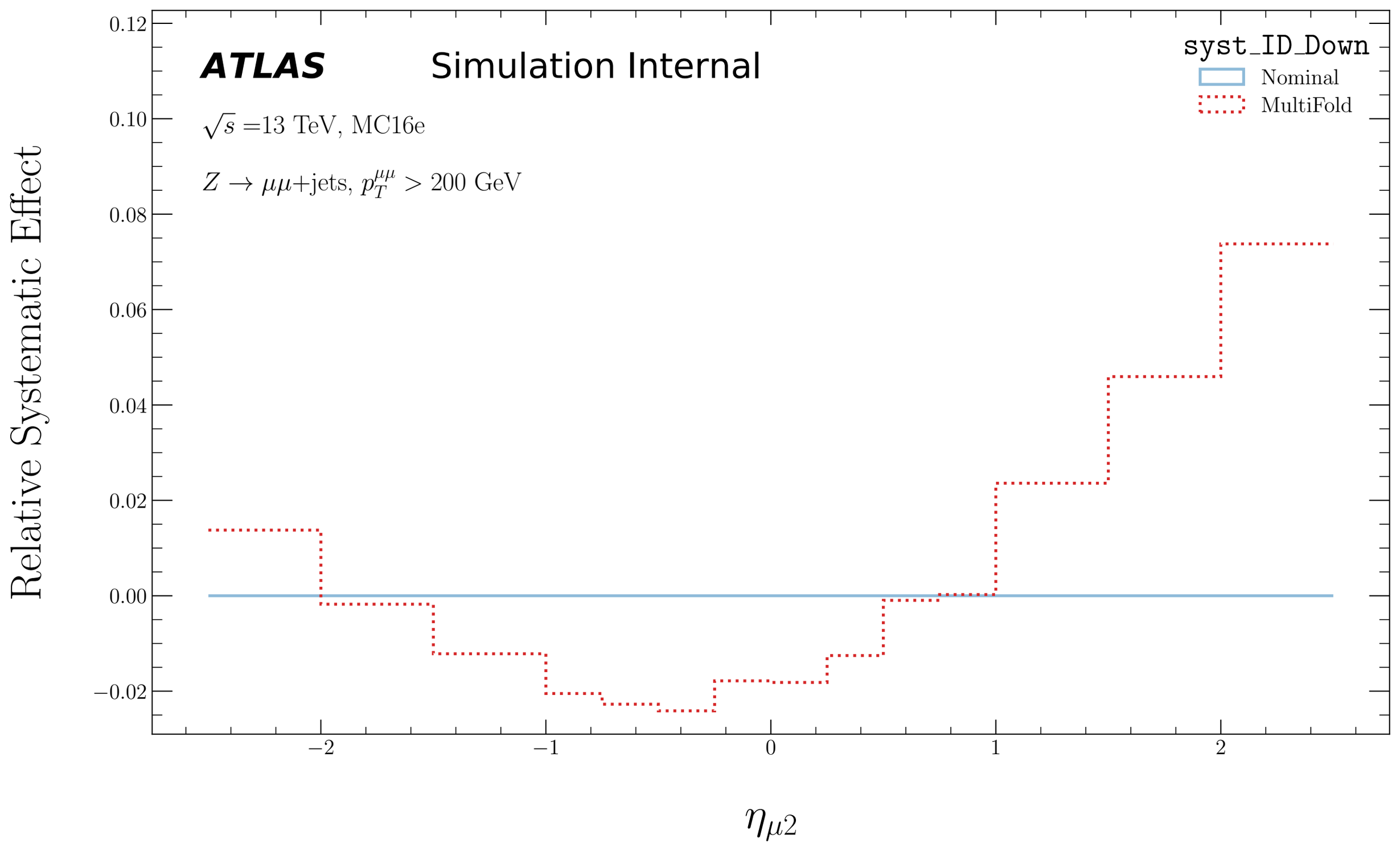

ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 1}$


ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−2
−1
0
1
2
$\eta_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
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0.02
0.00
−0.02
−2
−1
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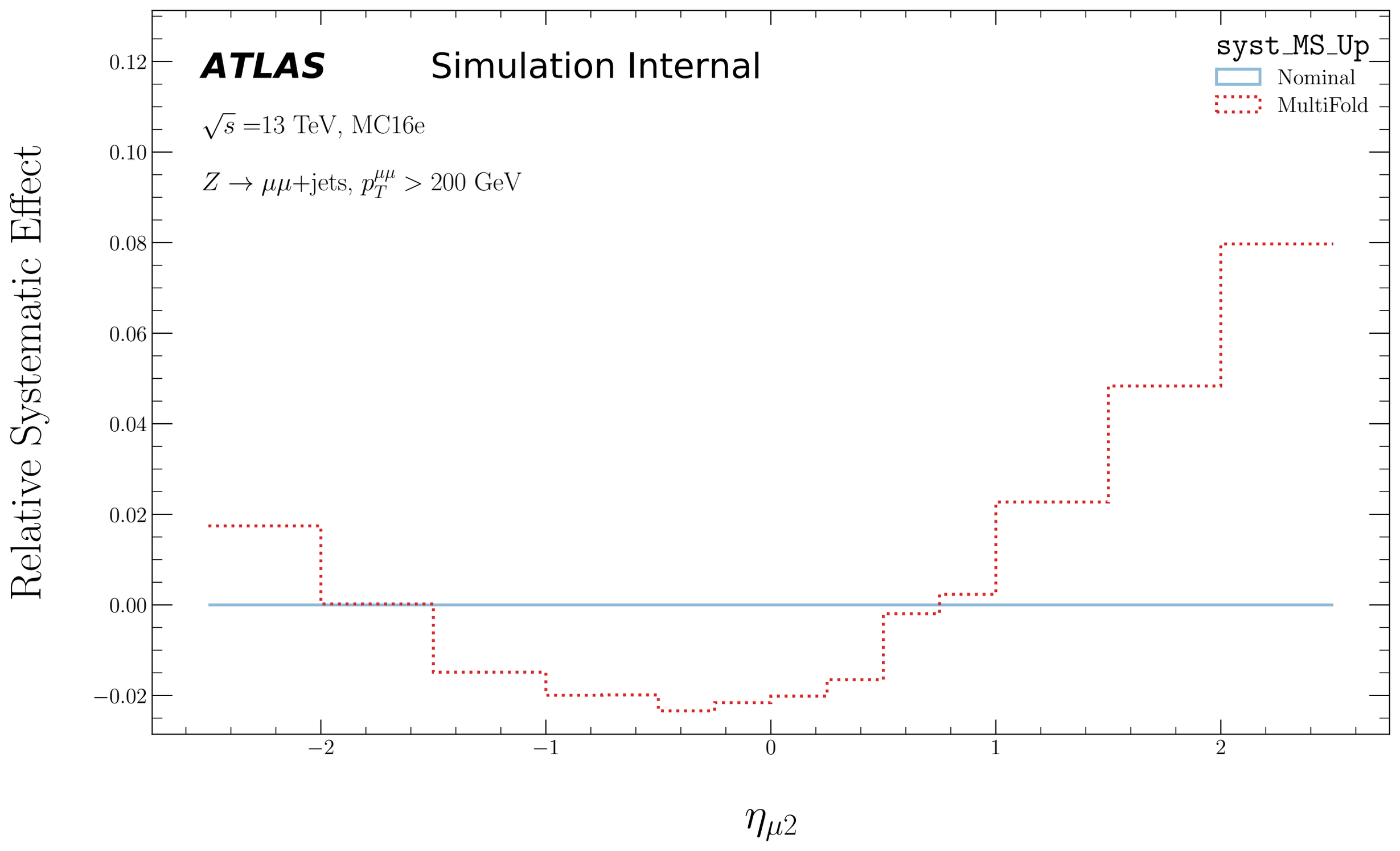
2
$\eta_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
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0.04
0.02
0.00
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−1
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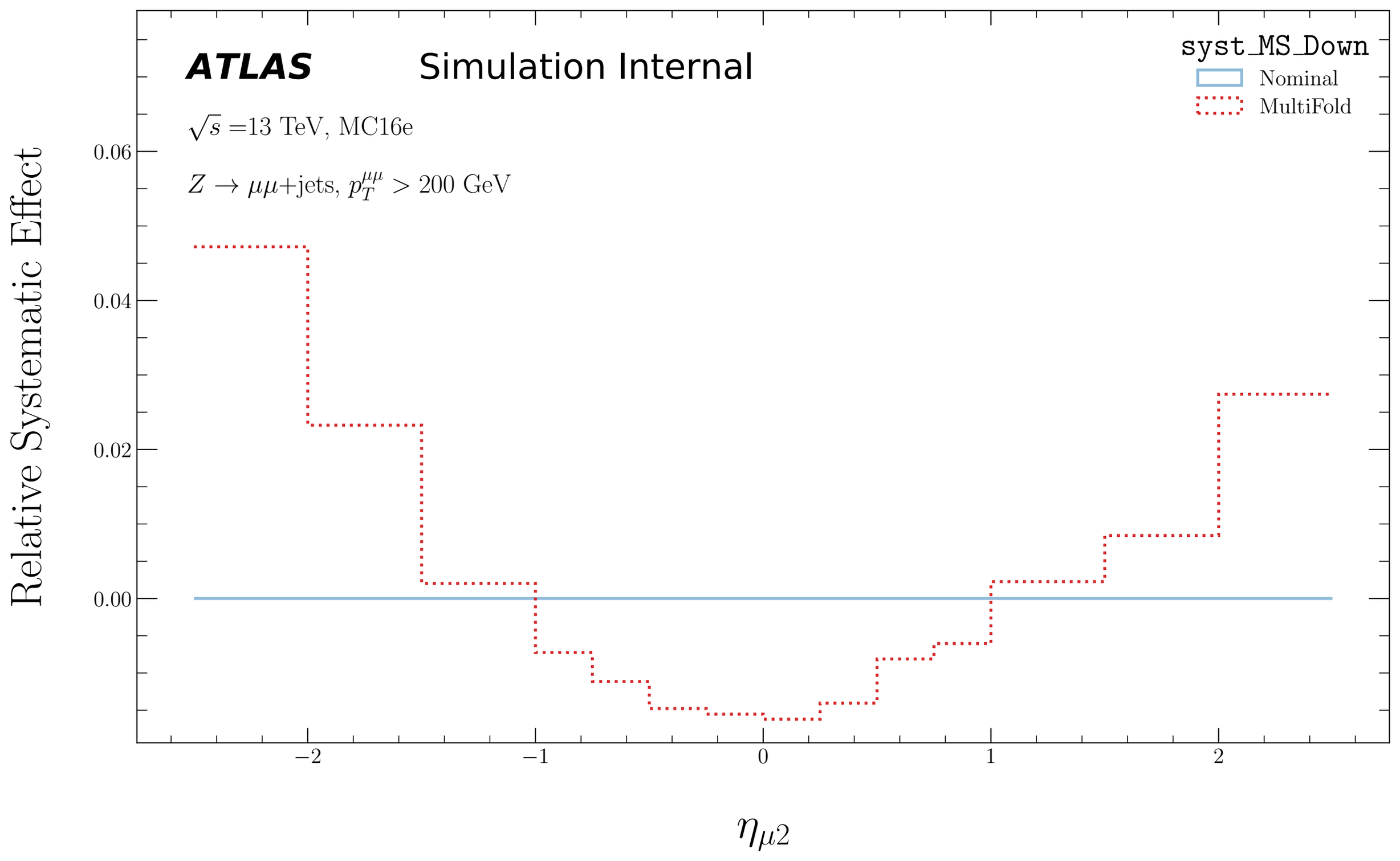
2
$\eta_{\mu 2}$


ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
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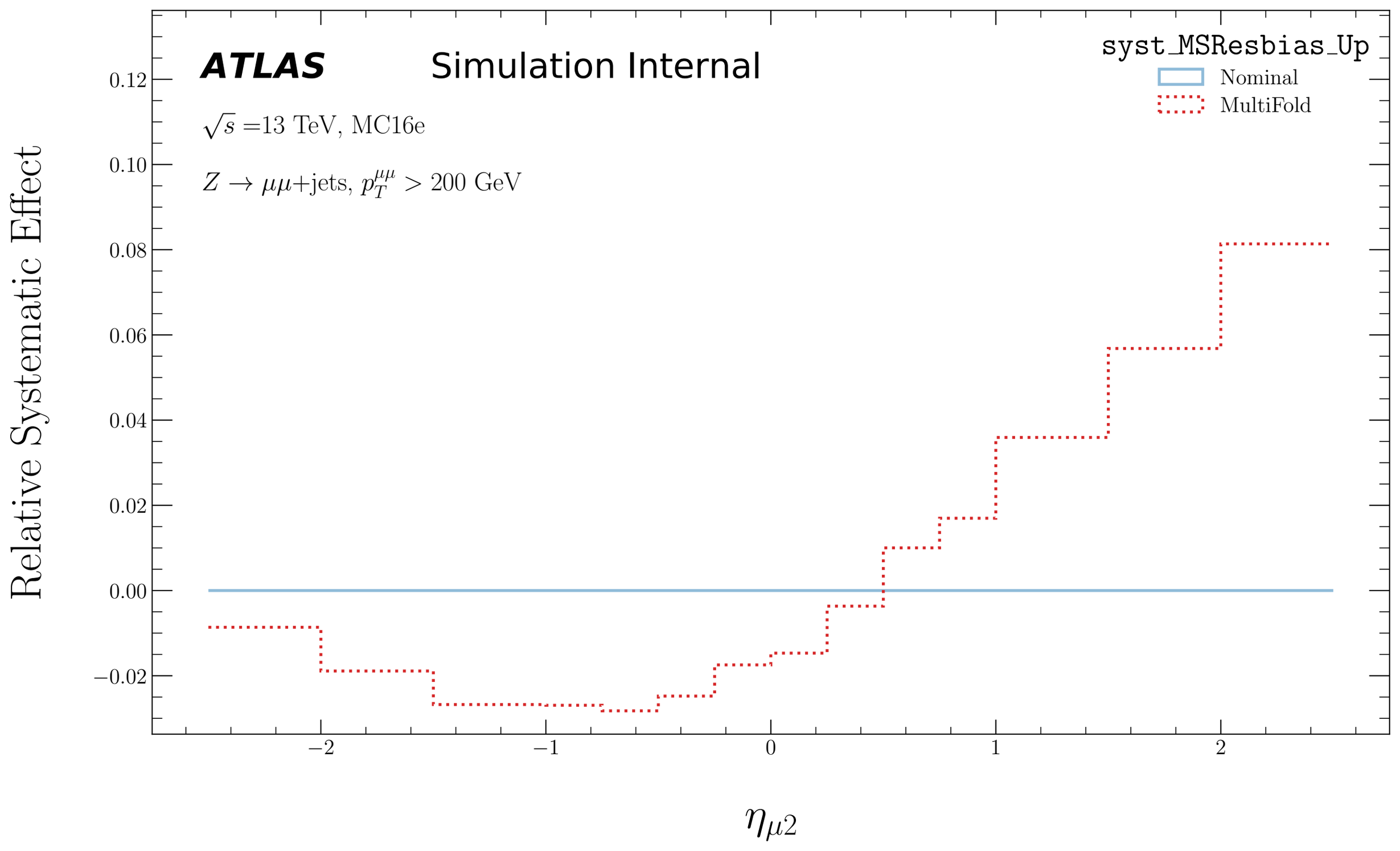
0.02
0.00
−2
−1
0
1
2
$\eta_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
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0.04
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0.00
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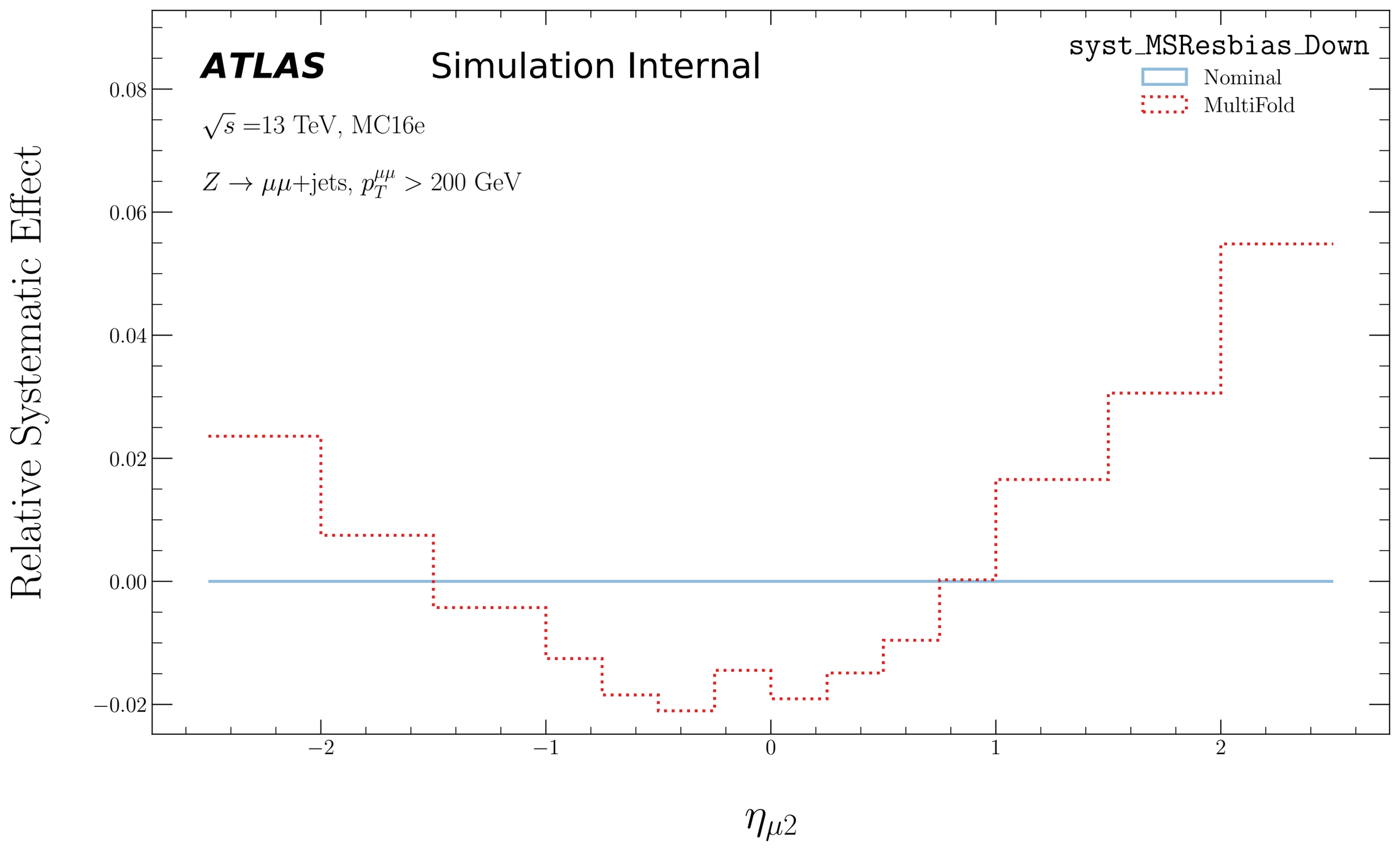
−2
−1
0
1
2
$\eta_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
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0.04
0.02
0.00
−0.02
−2
−1
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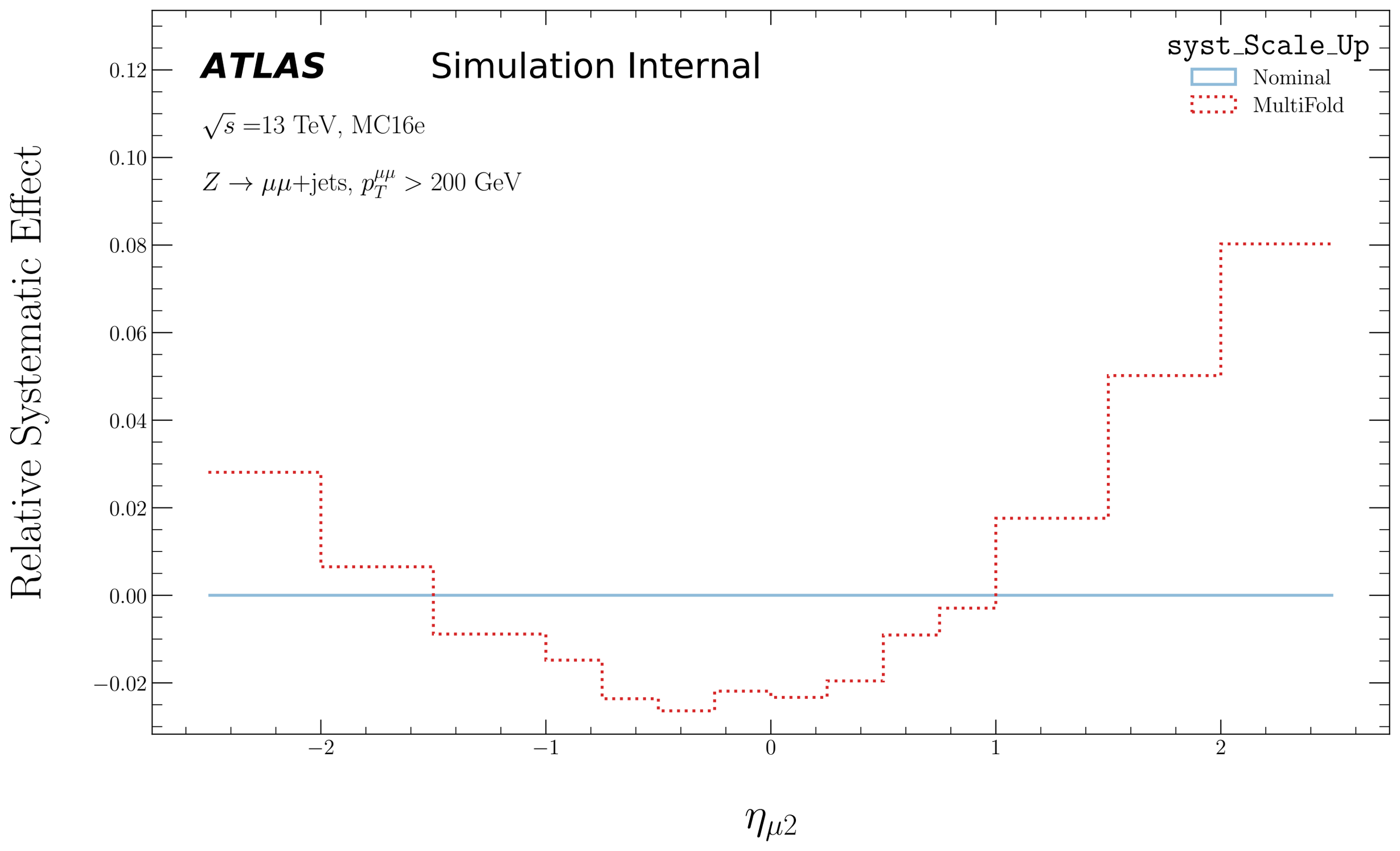
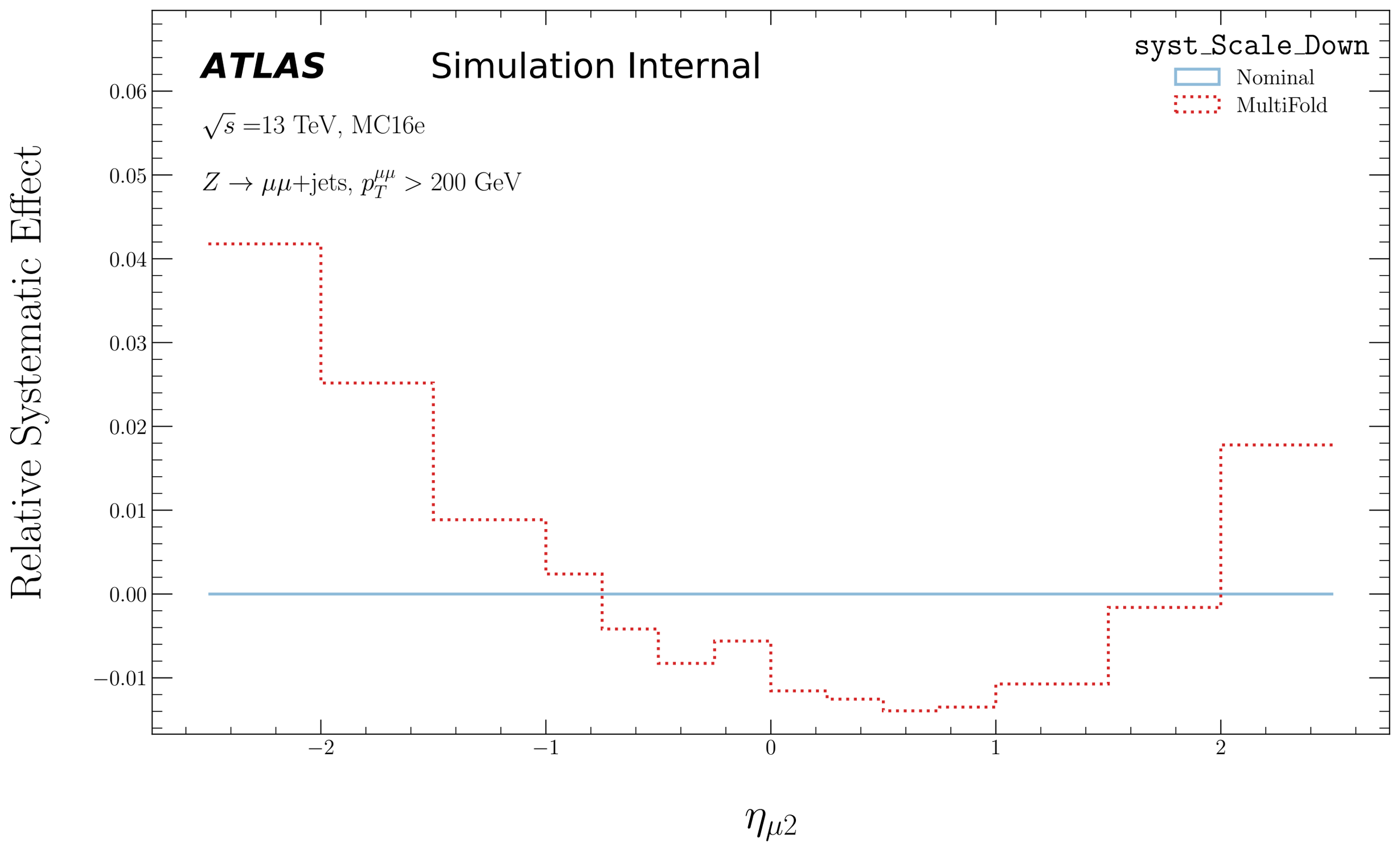
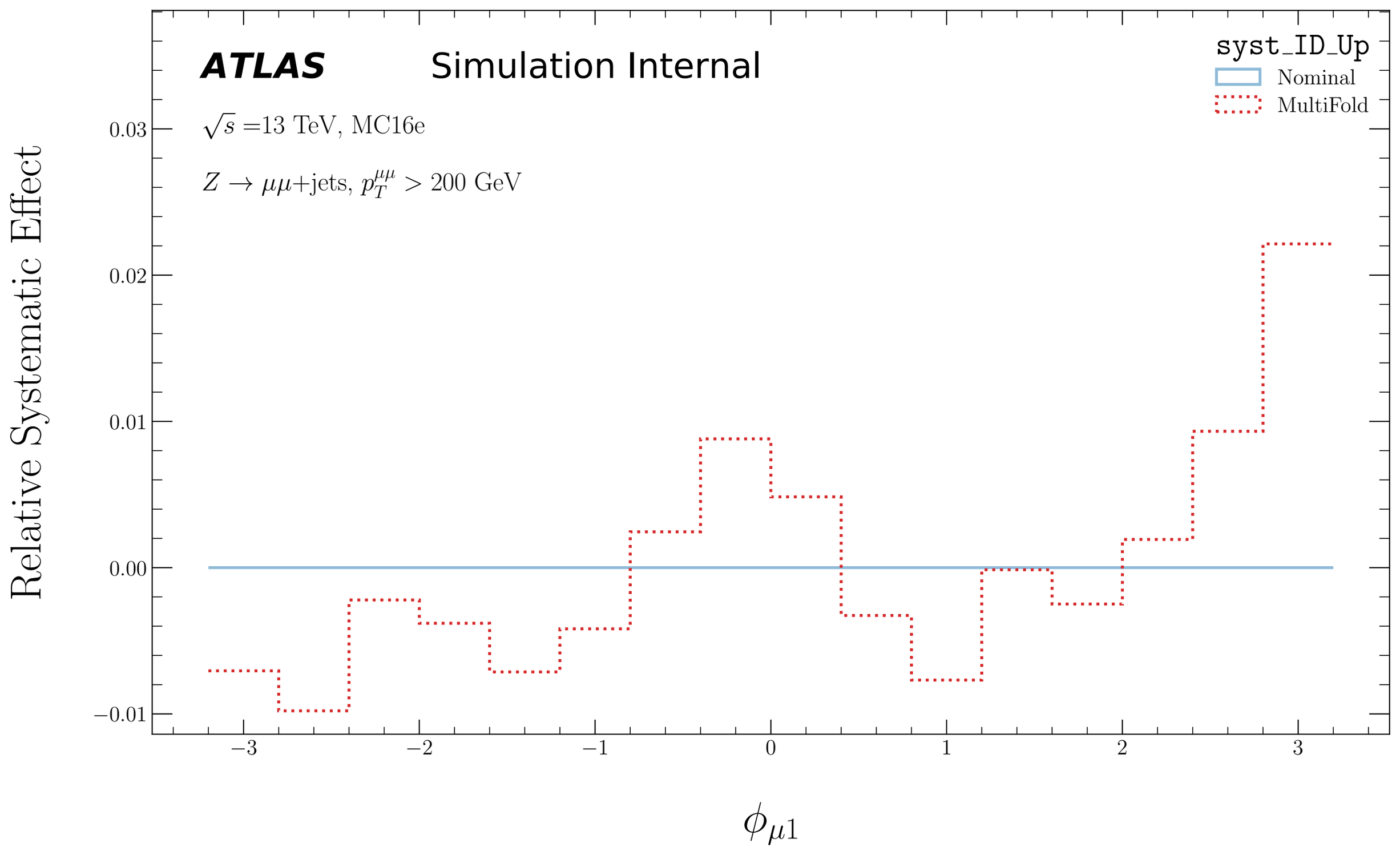
1
2
$\eta_{\mu 2}$


ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−2
−1
0
1
2
$\eta_{\mu 2}$


ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−2
−1
0
1
2
$\eta_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
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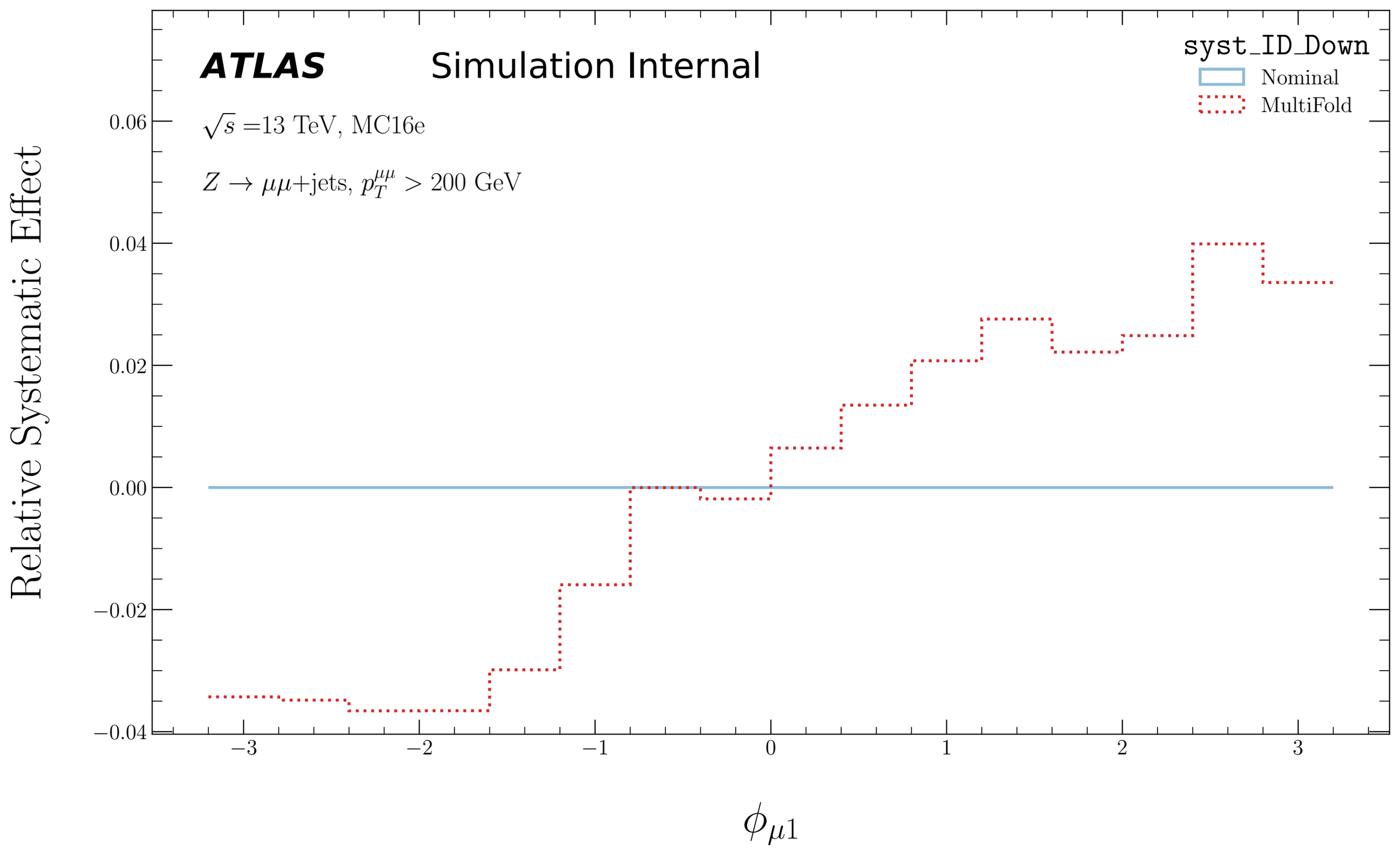
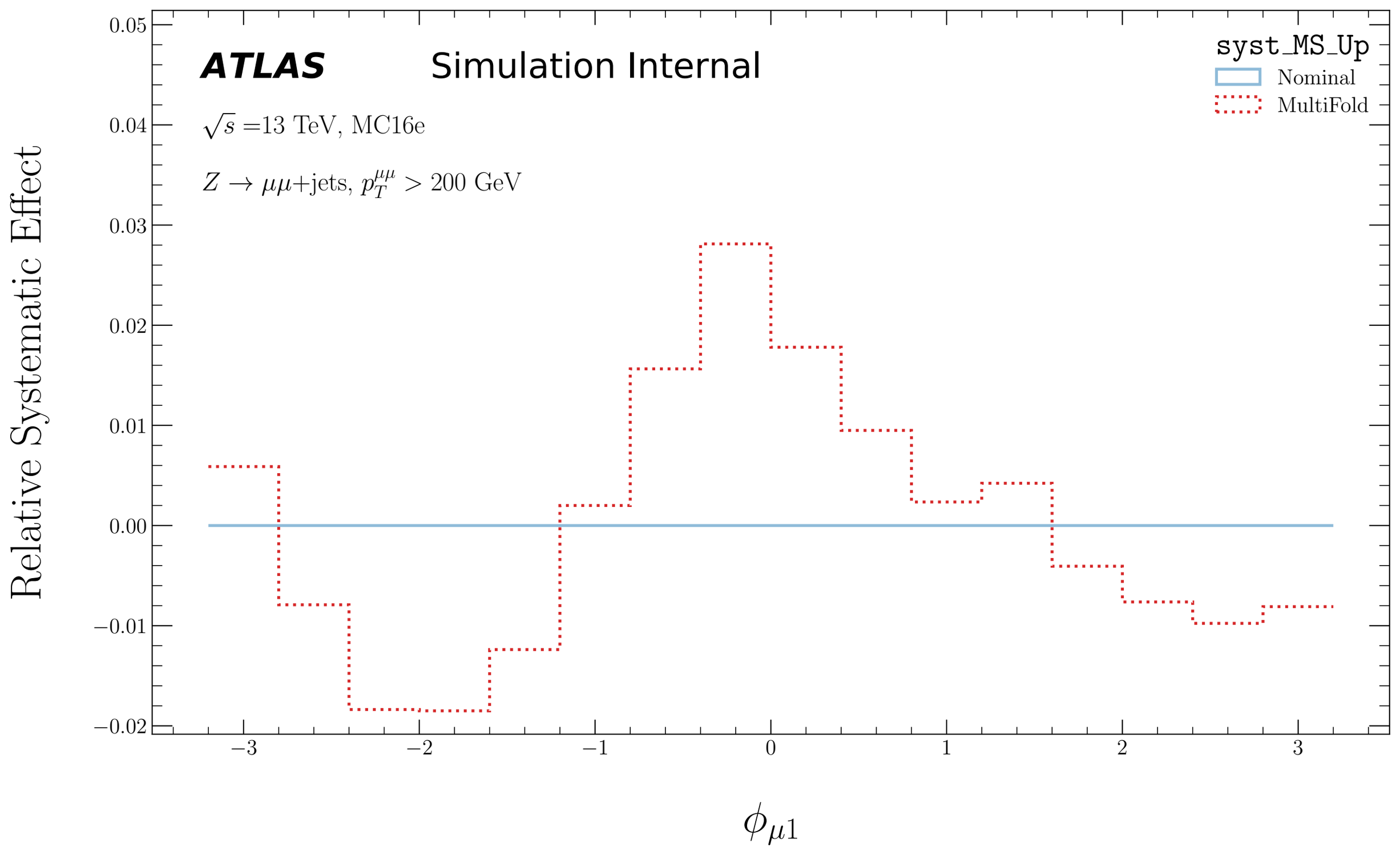
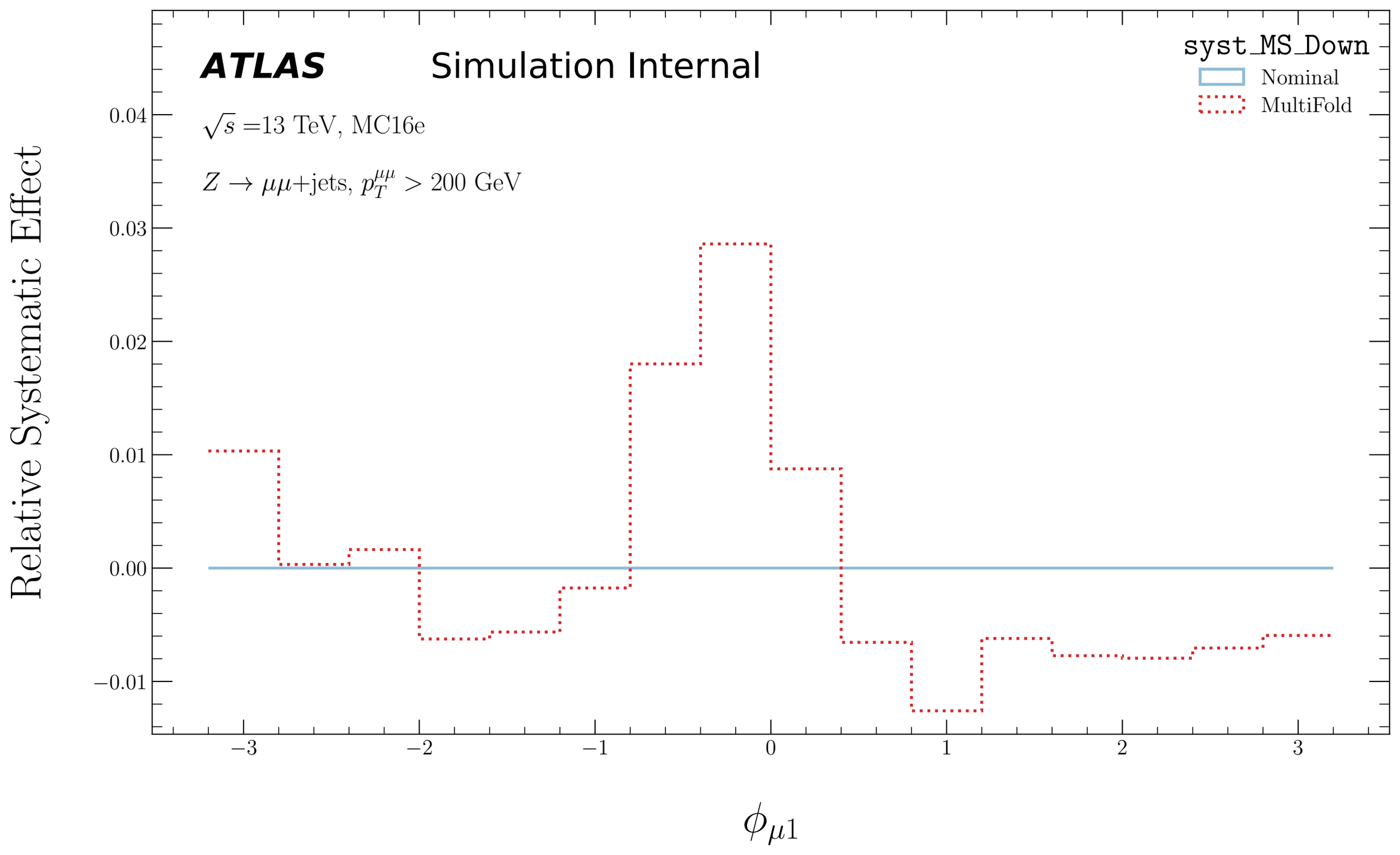
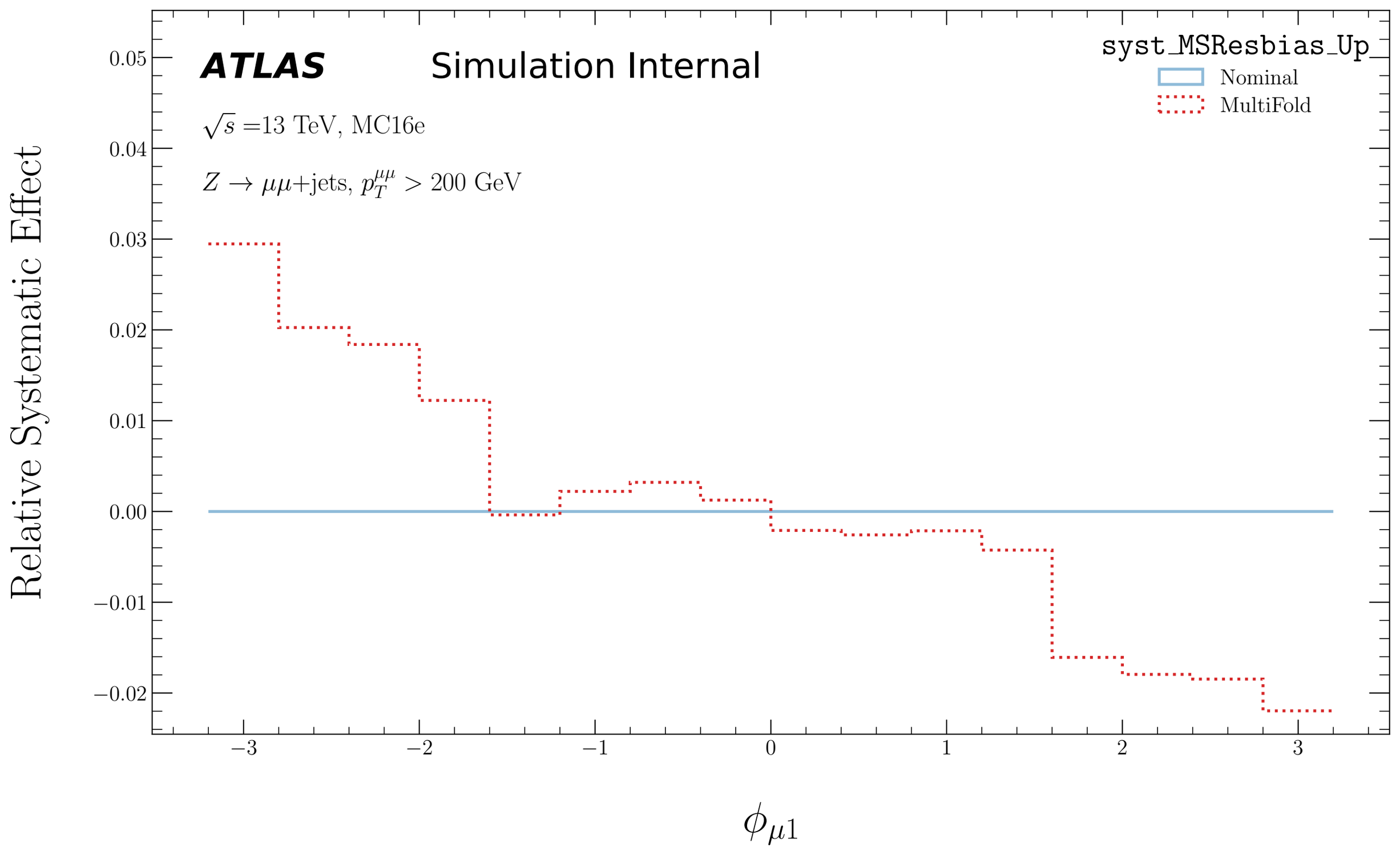
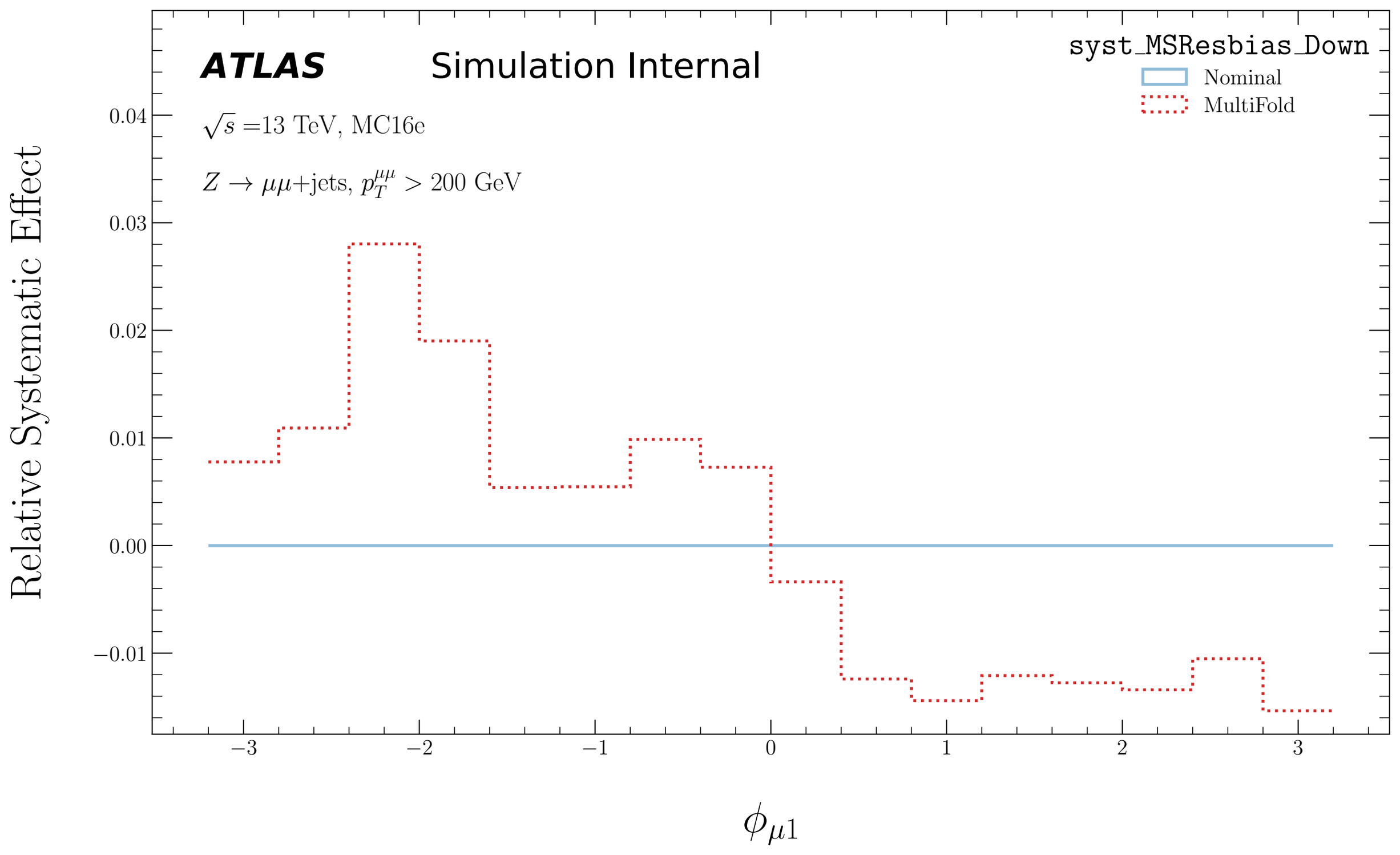
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$

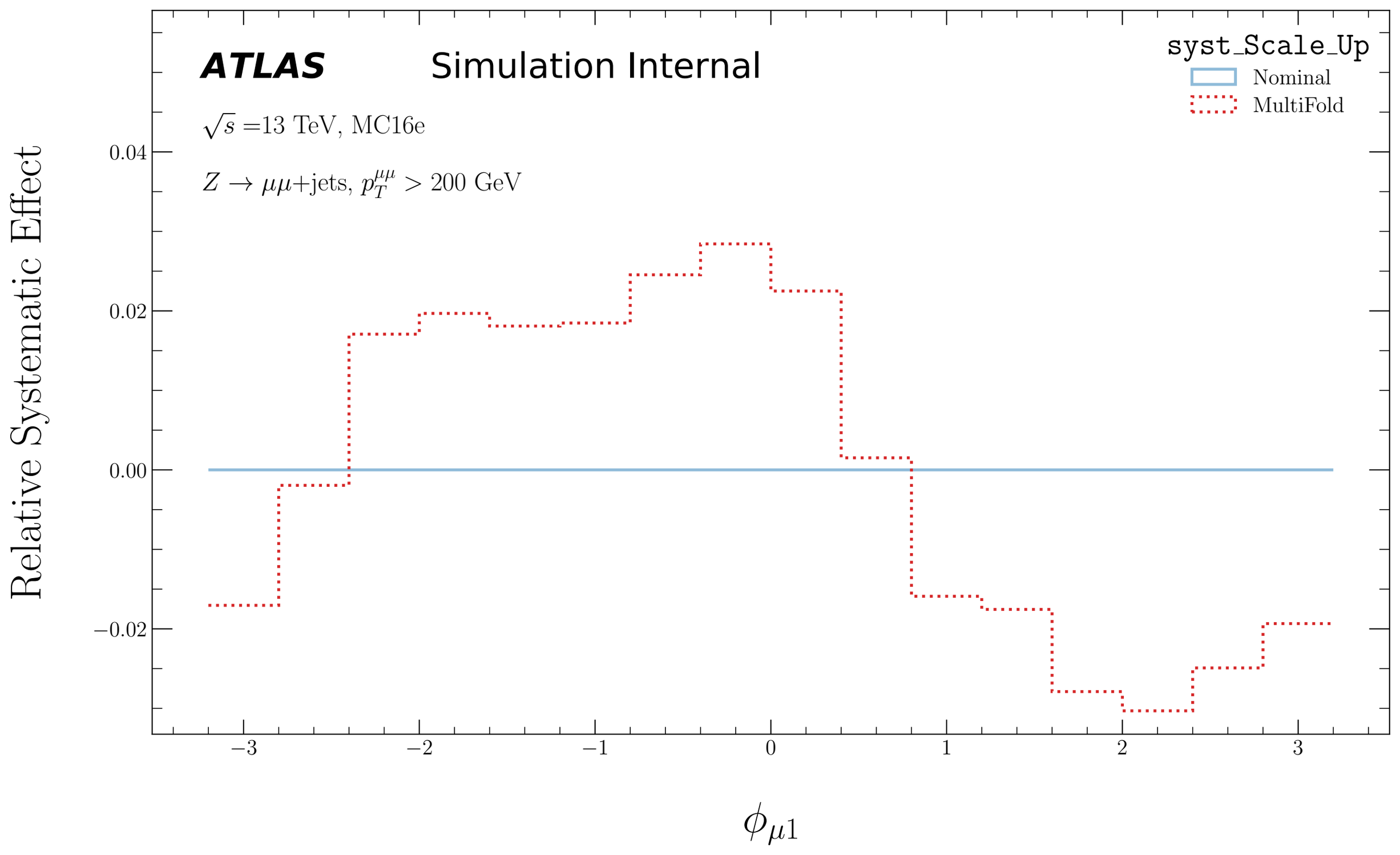

ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
0.06
0.04
0.02
0.00
−0.02
−0.04
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
$\phi_{\mu 1}$
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
0.04
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
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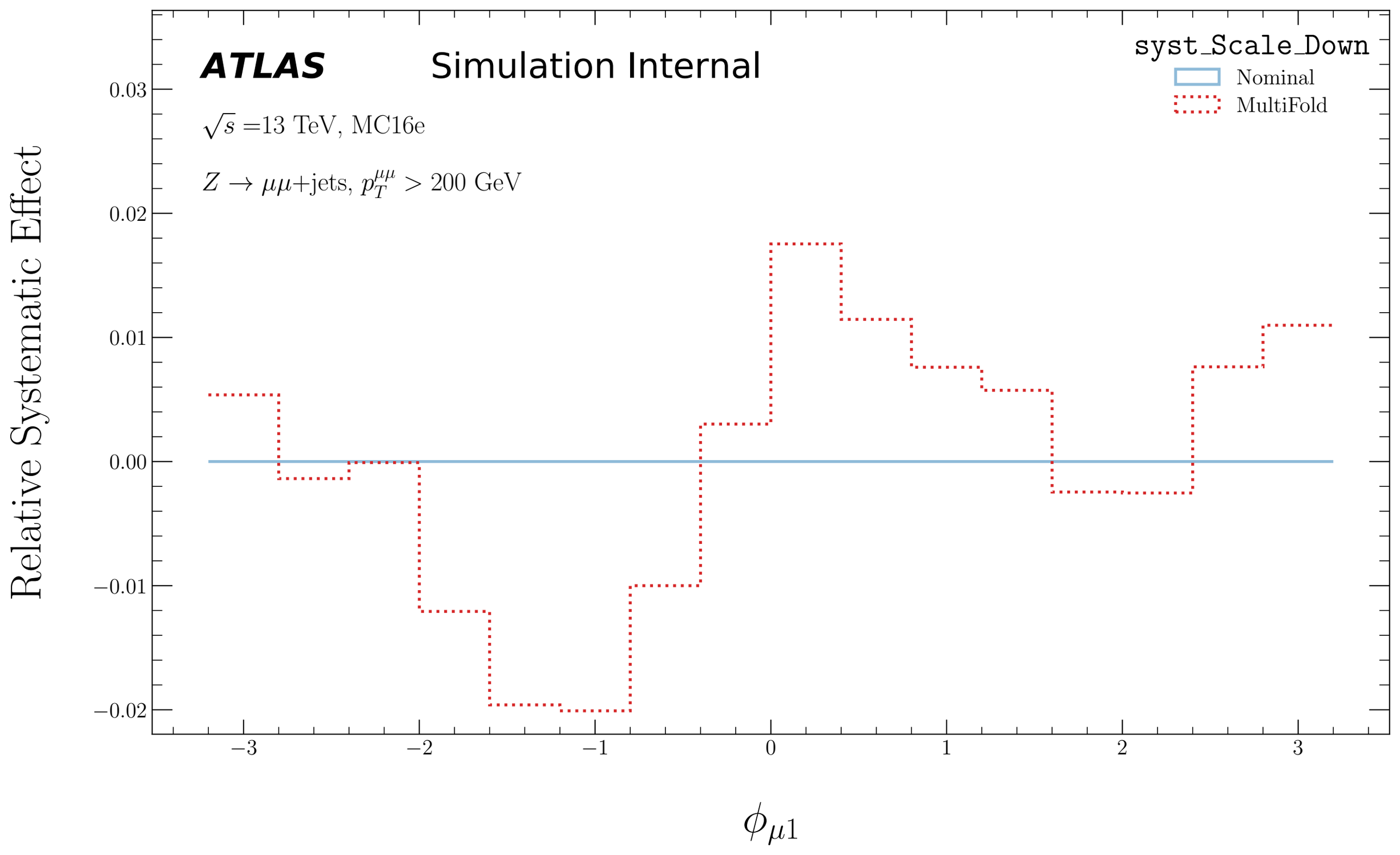
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.03
0.02
0.01
0.00
−0.01
−0.02
−3
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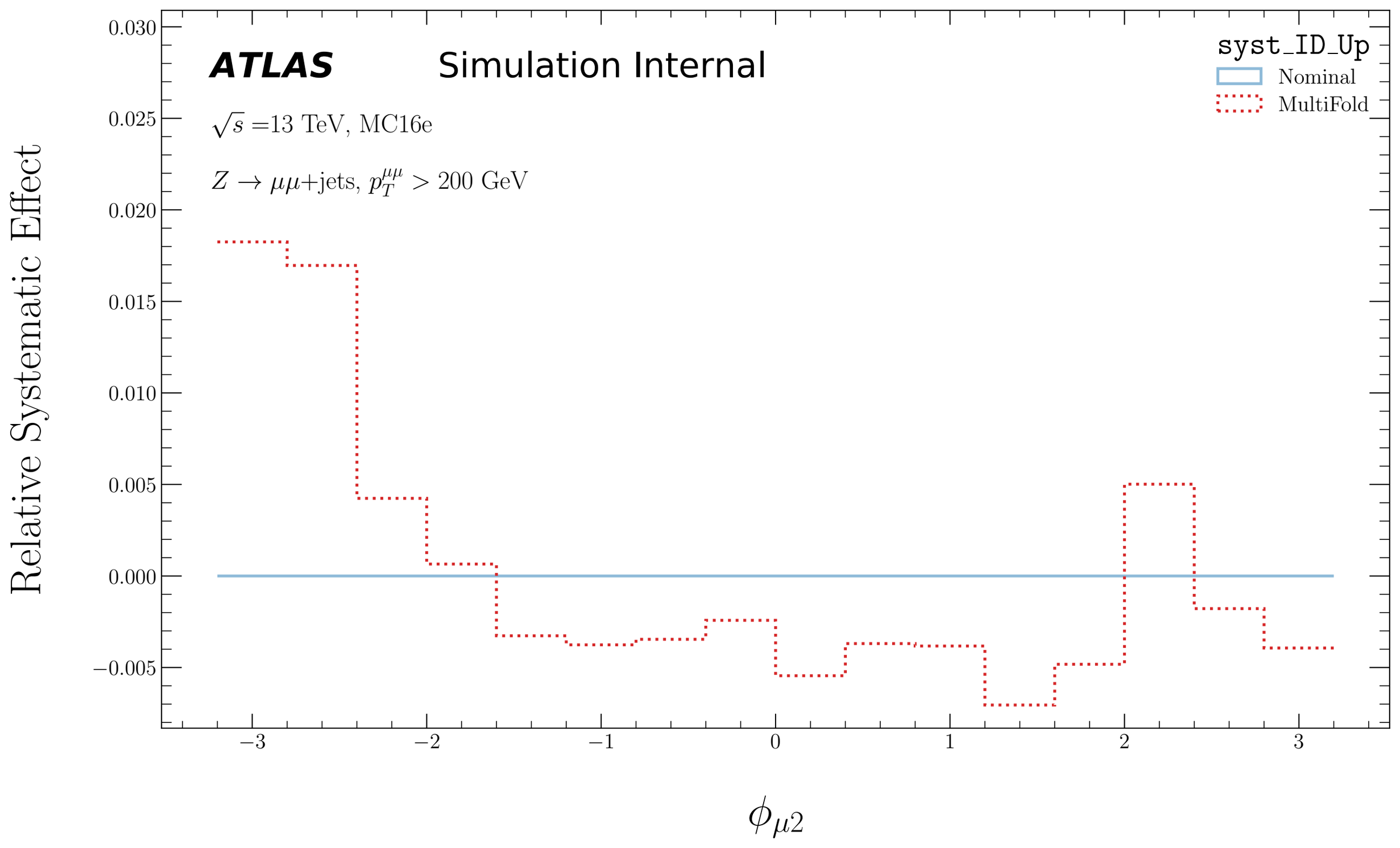
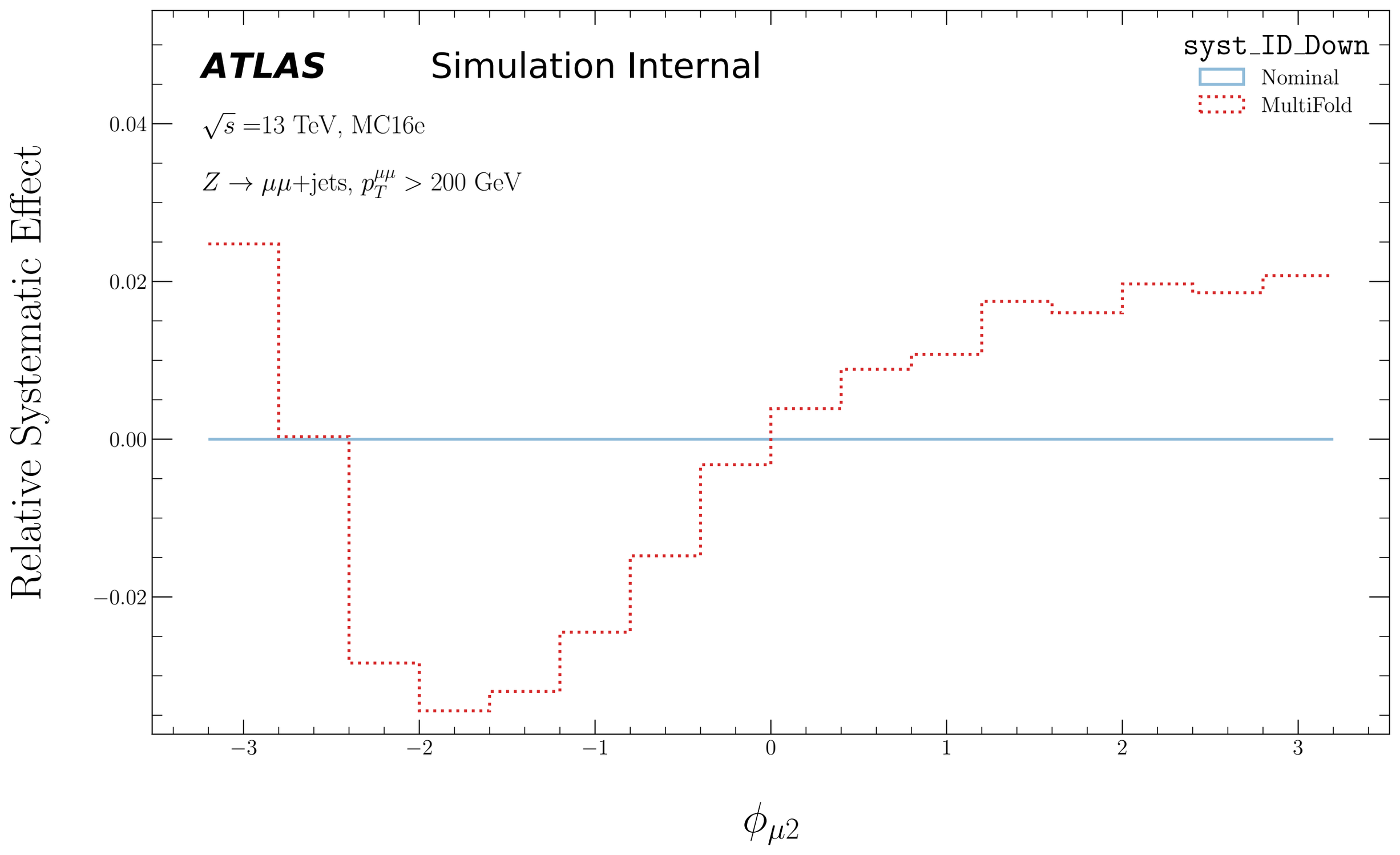
−1
0
1
2
3
$\phi_{\mu 1}$


ATLAS
Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Up
Nominal
MultiFold
Relative Systematic Effect
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−3
−2
−1
0
1
2
3
$\phi_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_ID_Down
Nominal
MultiFold
Relative Systematic Effect
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0.02
0.00
−0.02
−3
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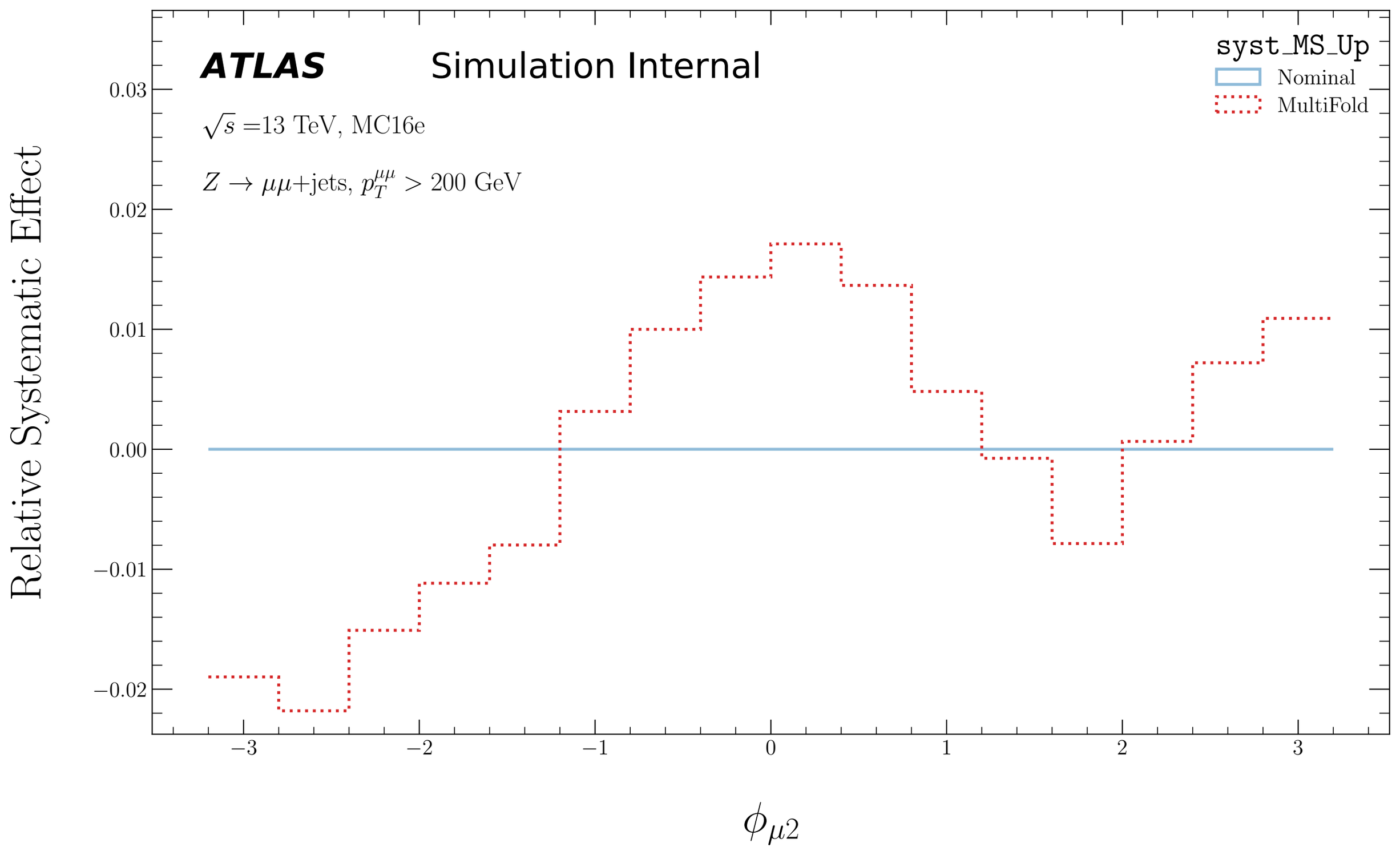
−1
0
1
2
3
$\phi_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Up
Nominal
MultiFold
Relative Systematic Effect
0.03
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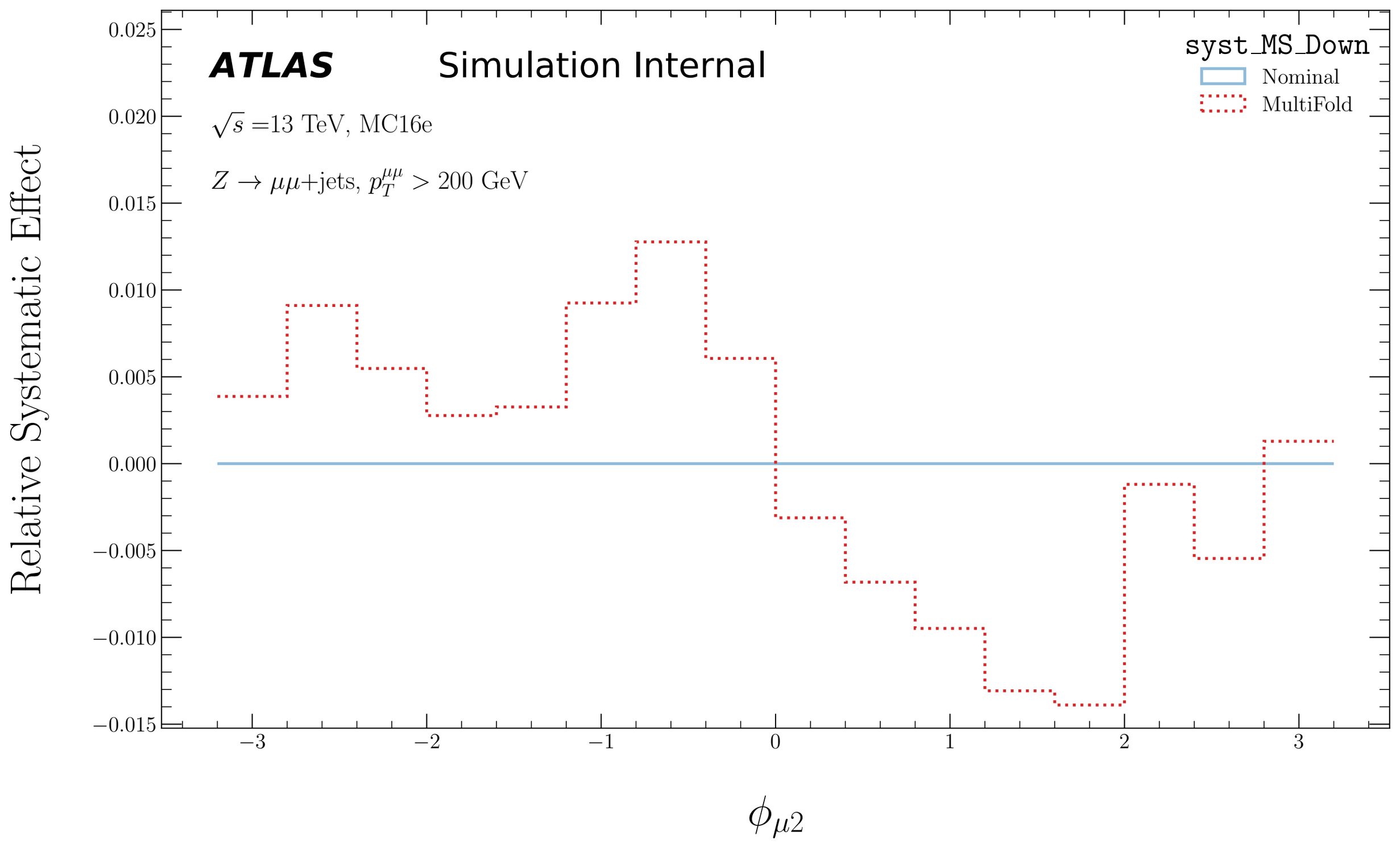
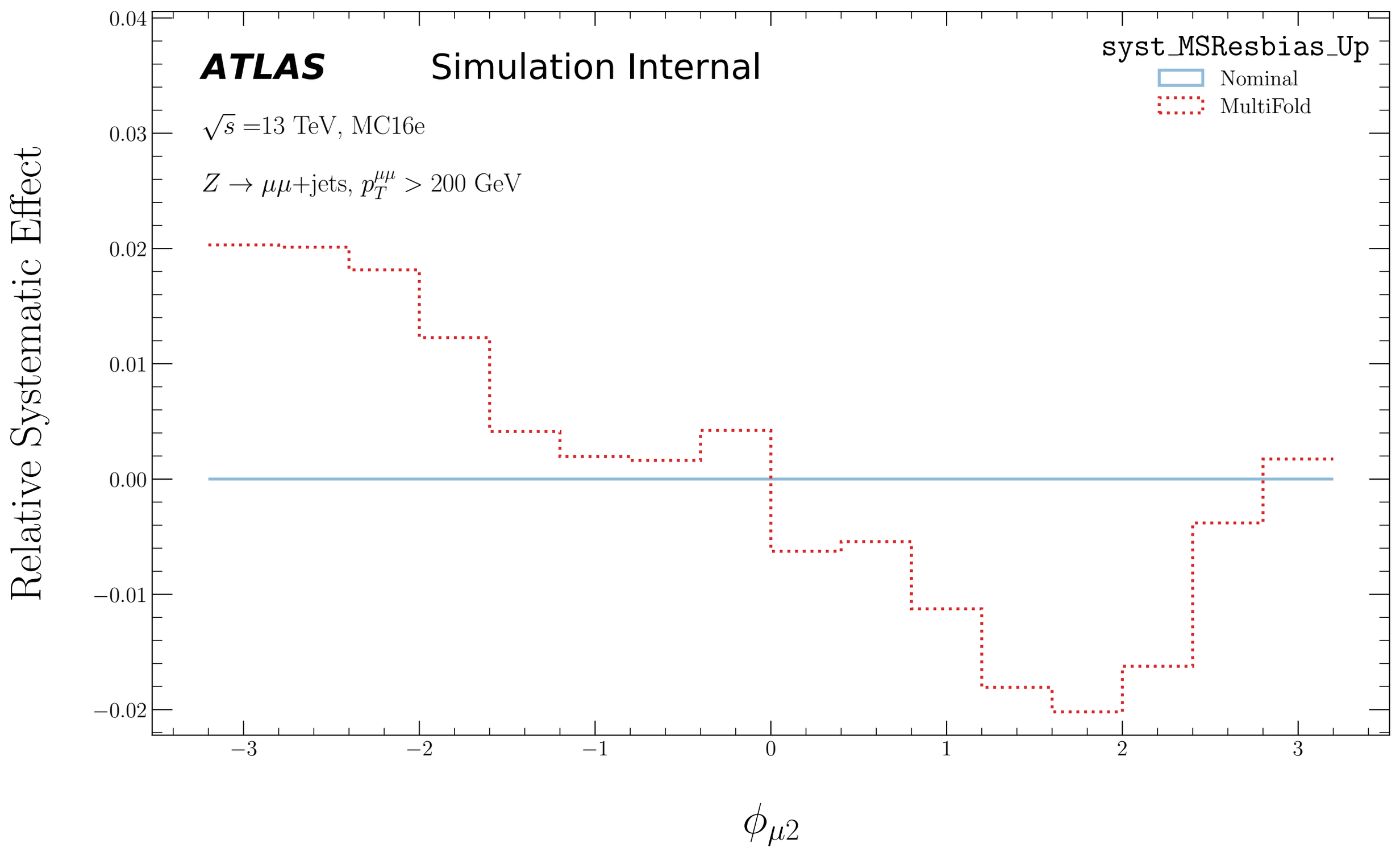
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3
$\phi_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MS_Down
Nominal
MultiFold
Relative Systematic Effect
$\phi_{\mu 2}$
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−3
−2
−1
0
1
2
3


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Up
Nominal
MultiFold
Relative Systematic Effect
$\phi_{\mu 2}$
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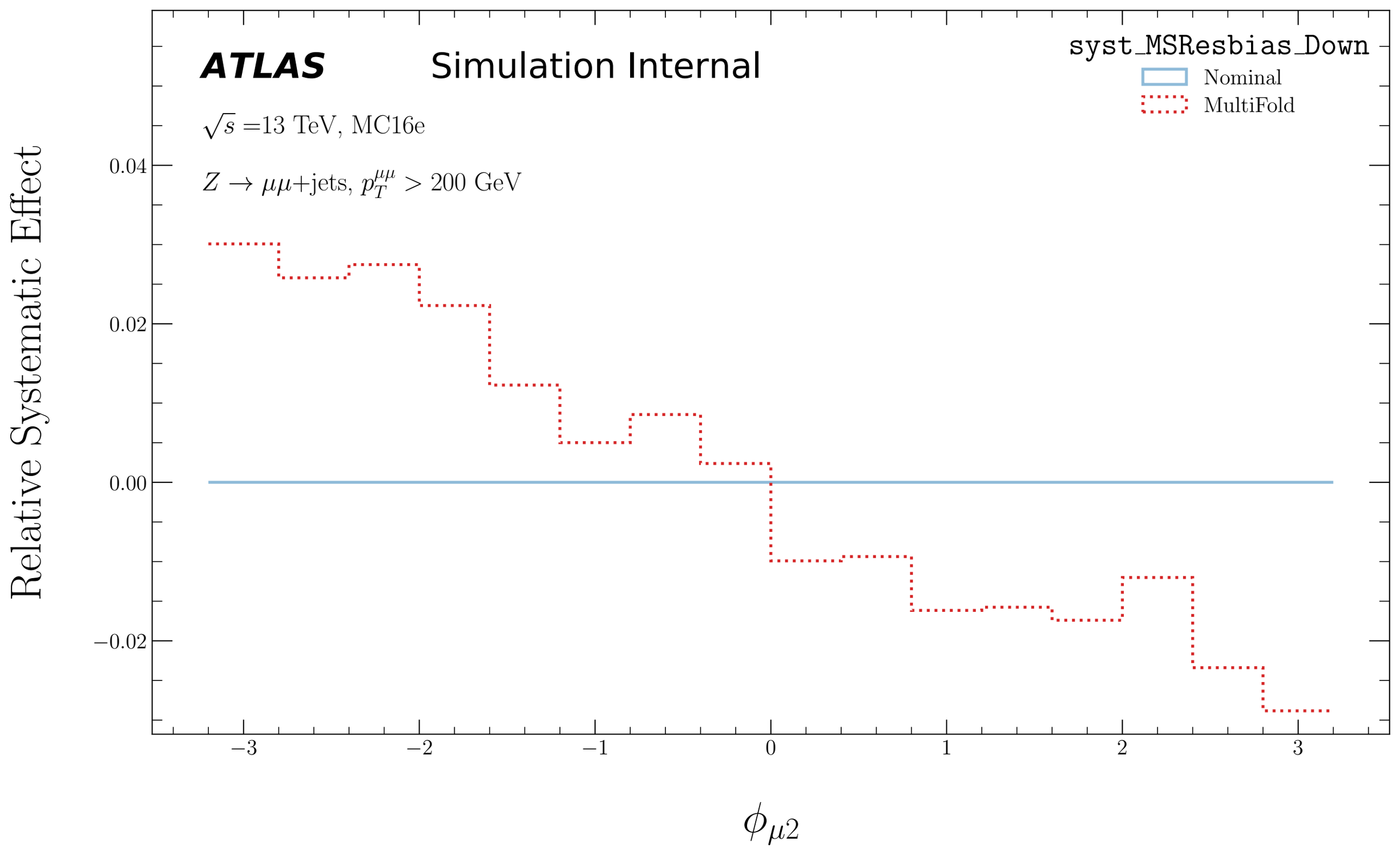
0.02
0.01
0.00
−0.01
−0.02
−3
−2
−1
0
1
2
3


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_MSResbias_Down
Nominal
MultiFold
Relative Systematic Effect
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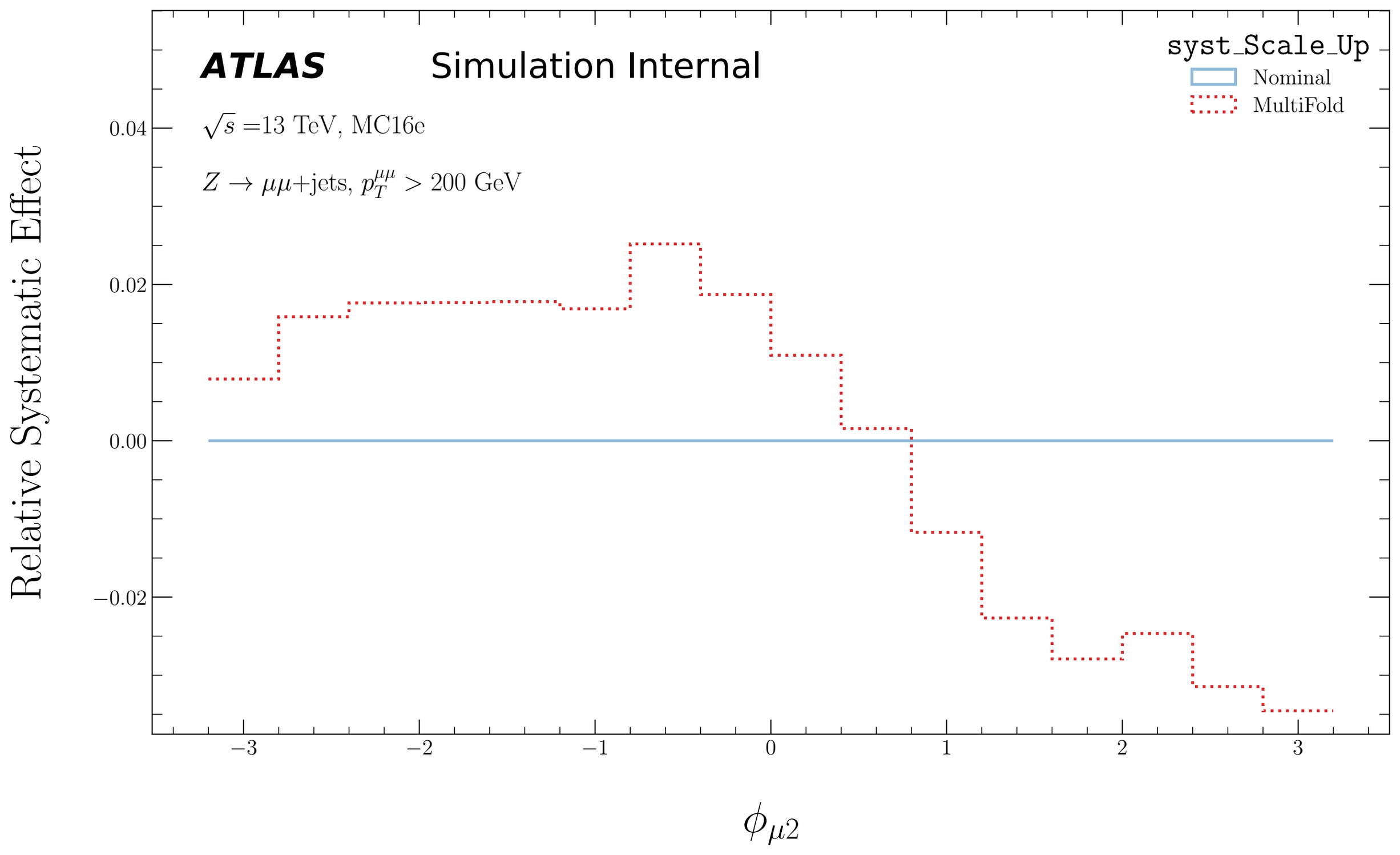
0.00
−0.02
−3
−2
−1
0
1
2
3
$\phi_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Up
Nominal
MultiFold
Relative Systematic Effect
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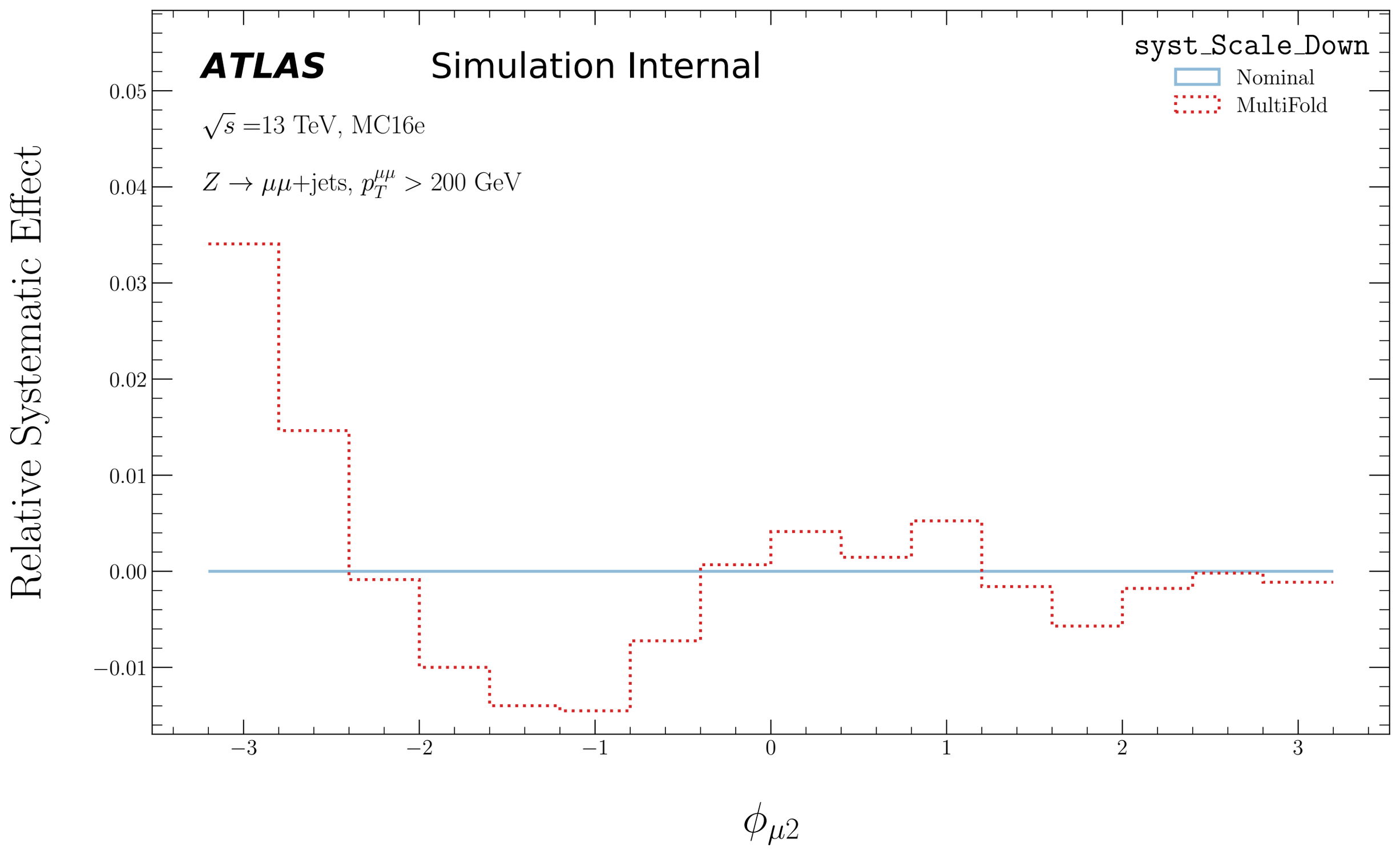
0.02
0.00
−0.02
−3
−2
−1
0
1
2
3
$\phi_{\mu 2}$


ATLAS Simulation Internal
$\sqrt{s}$ =13 TeV, MC16e
$Z \to \mu\mu$+jets, $p_T^{\mu\mu} > 200$ GeV
syst_Scale_Down
Nominal
MultiFold
Relative Systematic Effect
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
−3
−2
−1
0
1
2
3
$\phi_{\mu 2}$