

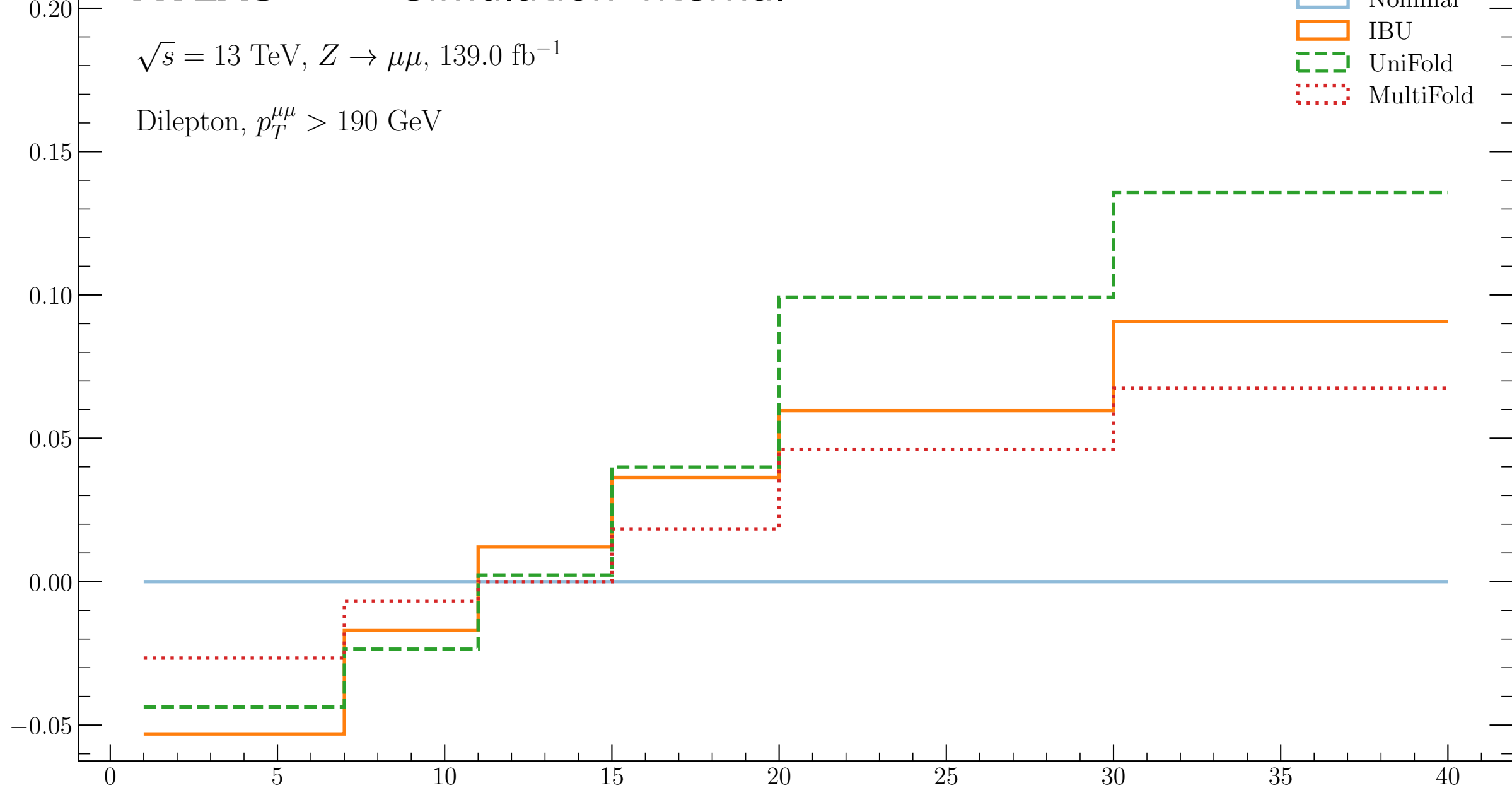
ATLAS

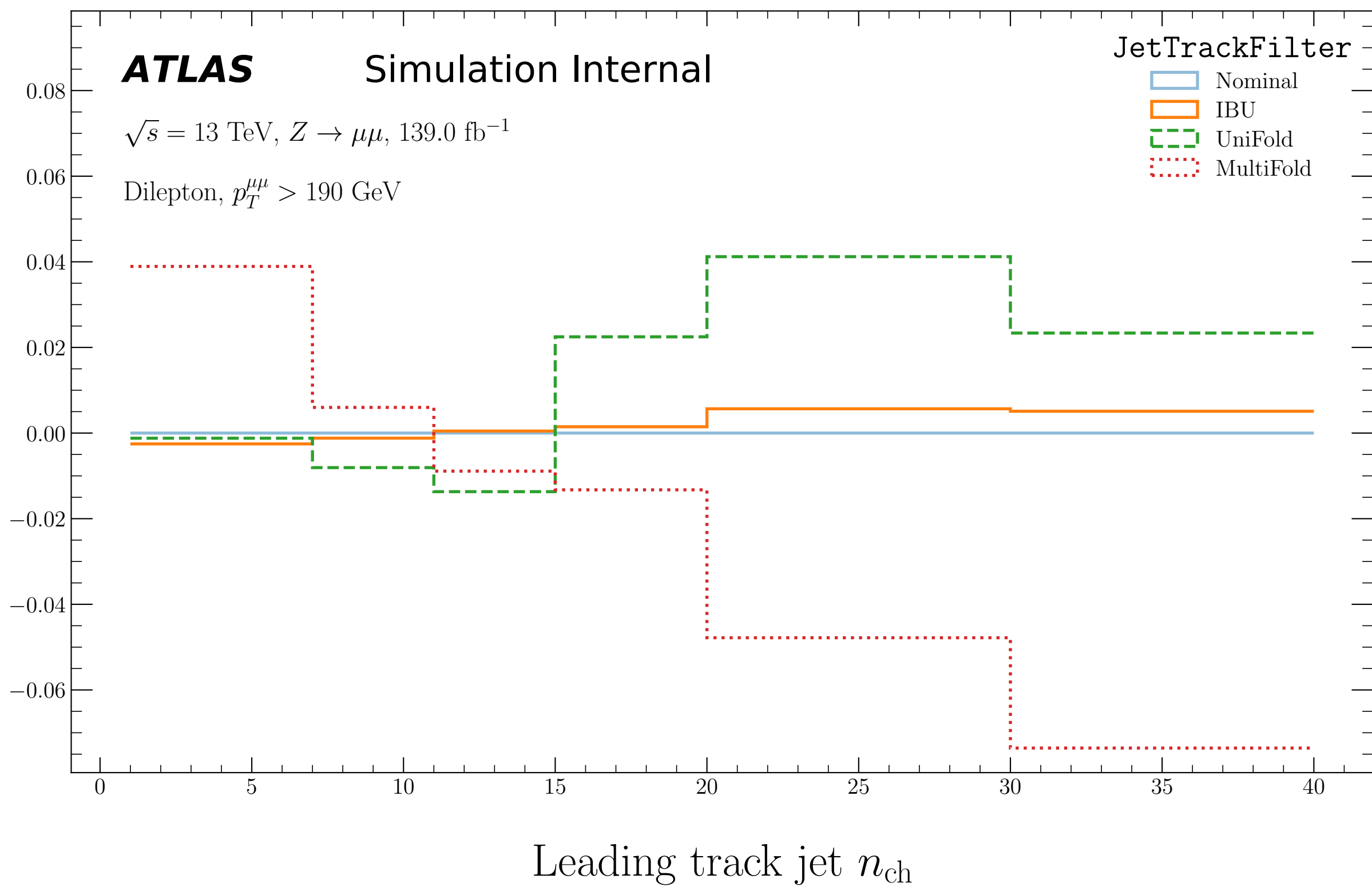
Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet n_{ch}



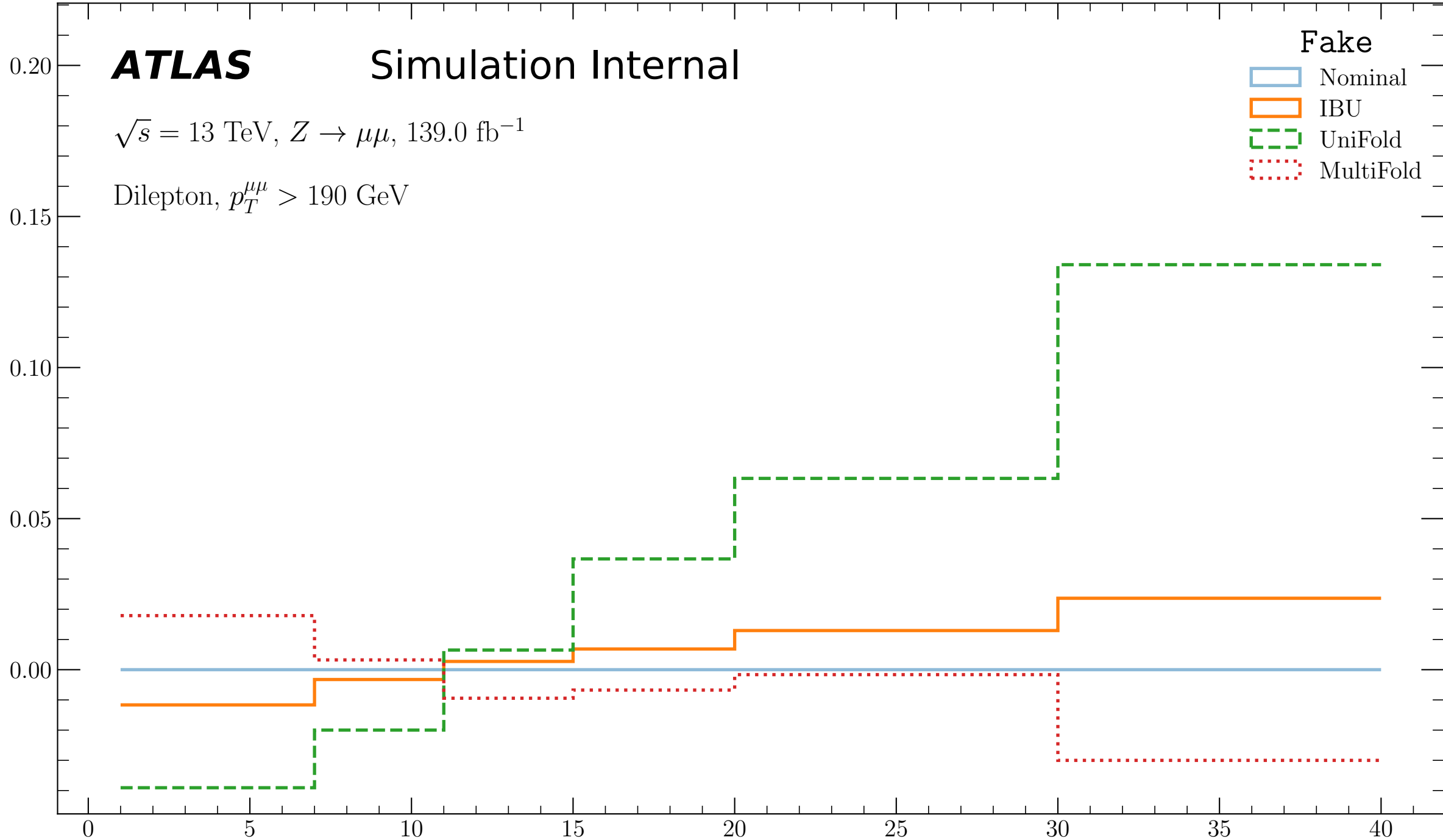
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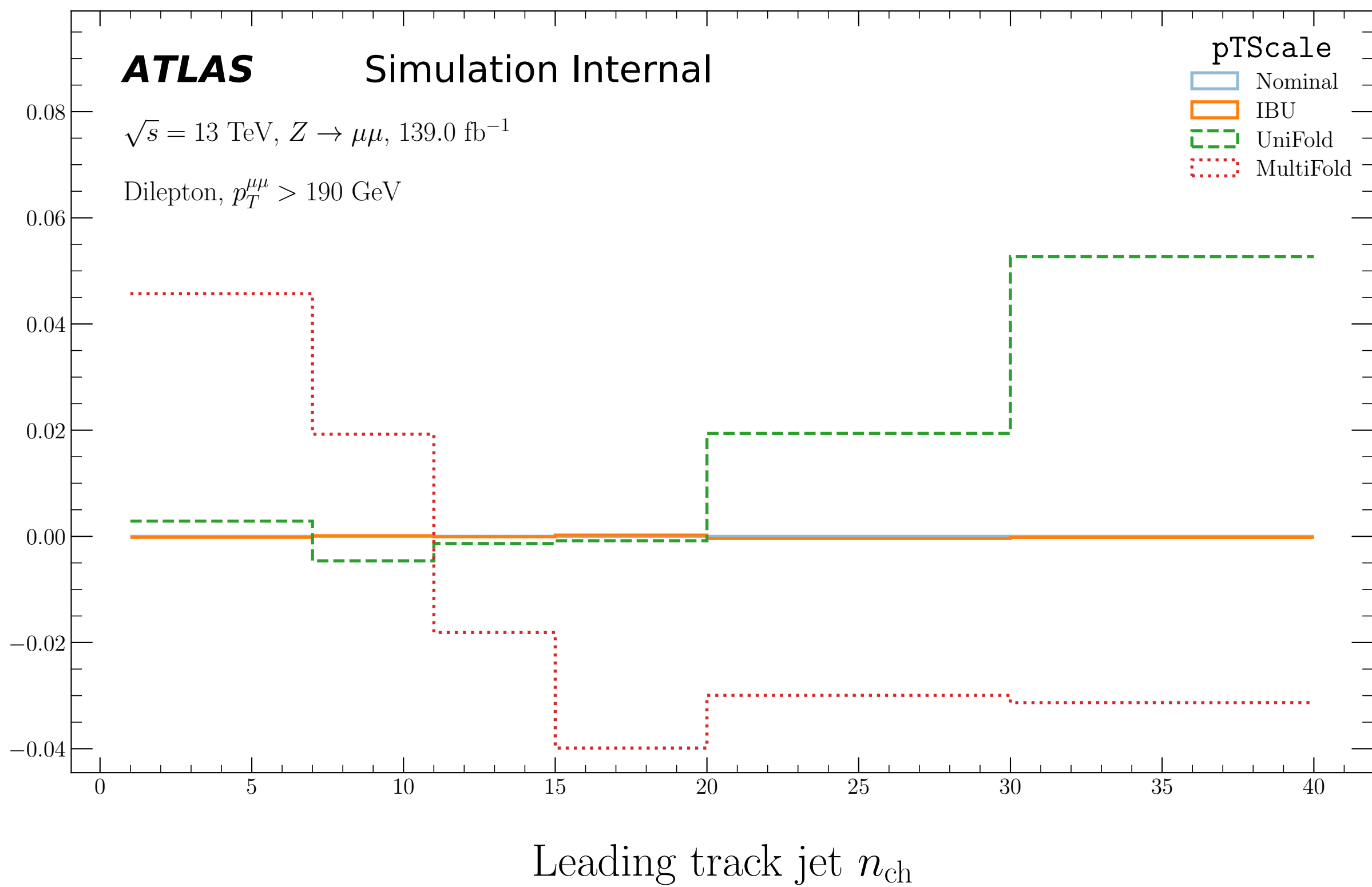
Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet n_{ch}



Relative Systematic Effect (MultiFold)

ATLAS

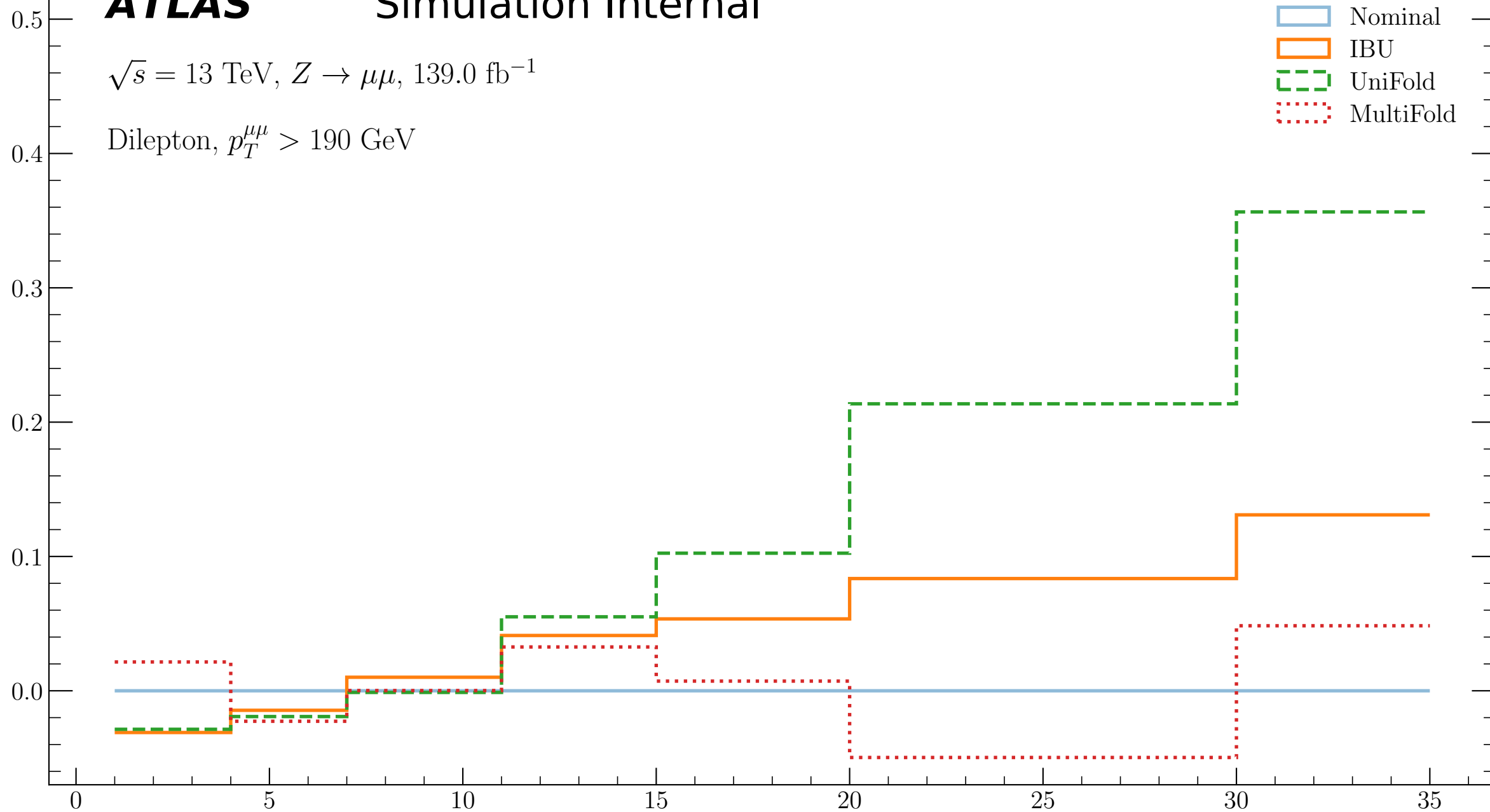
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

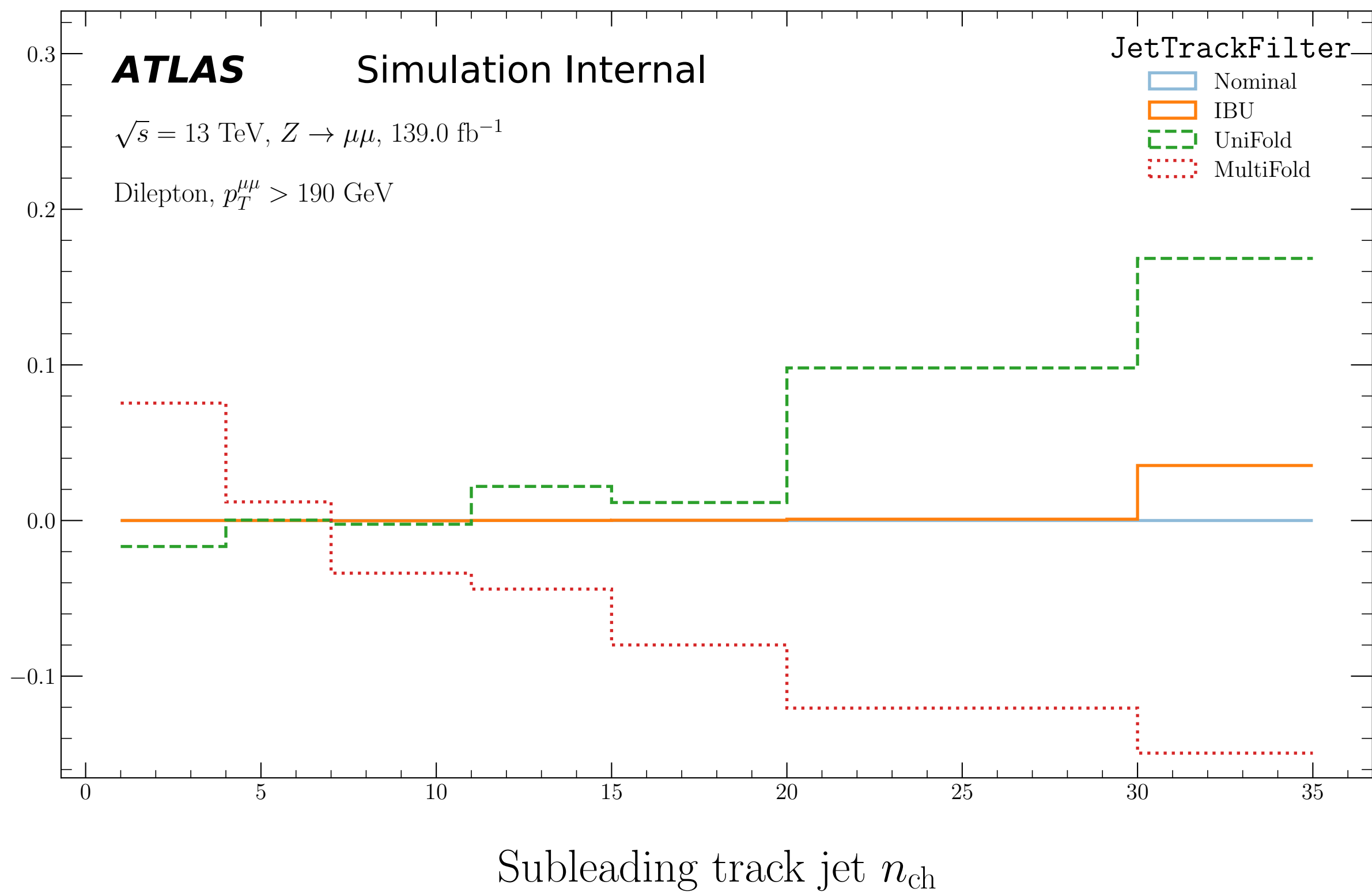
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet n_{ch}



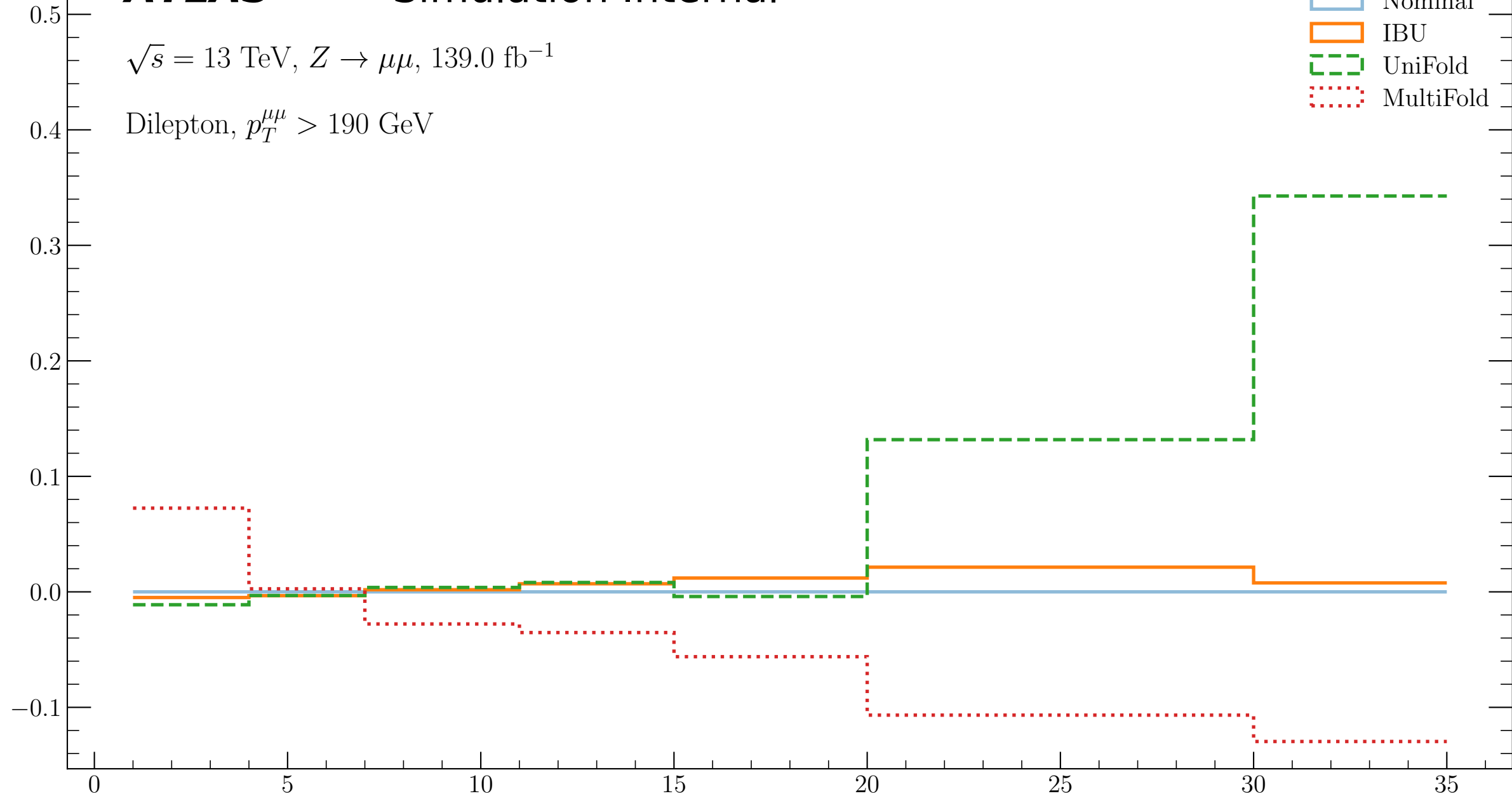
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet n_{ch}

Relative Systematic Effect (MultiFold)

ATLAS

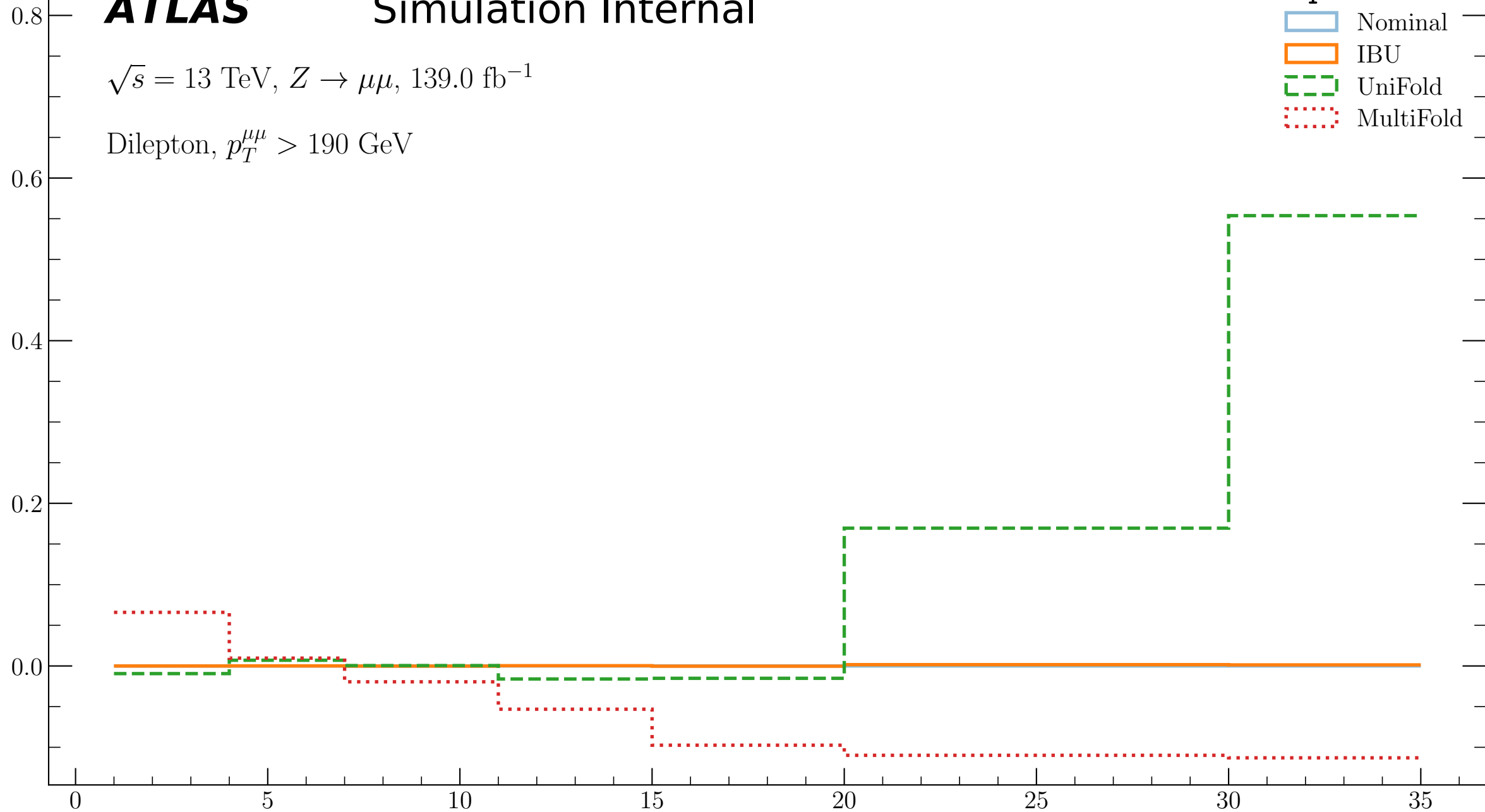
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet n_{ch}

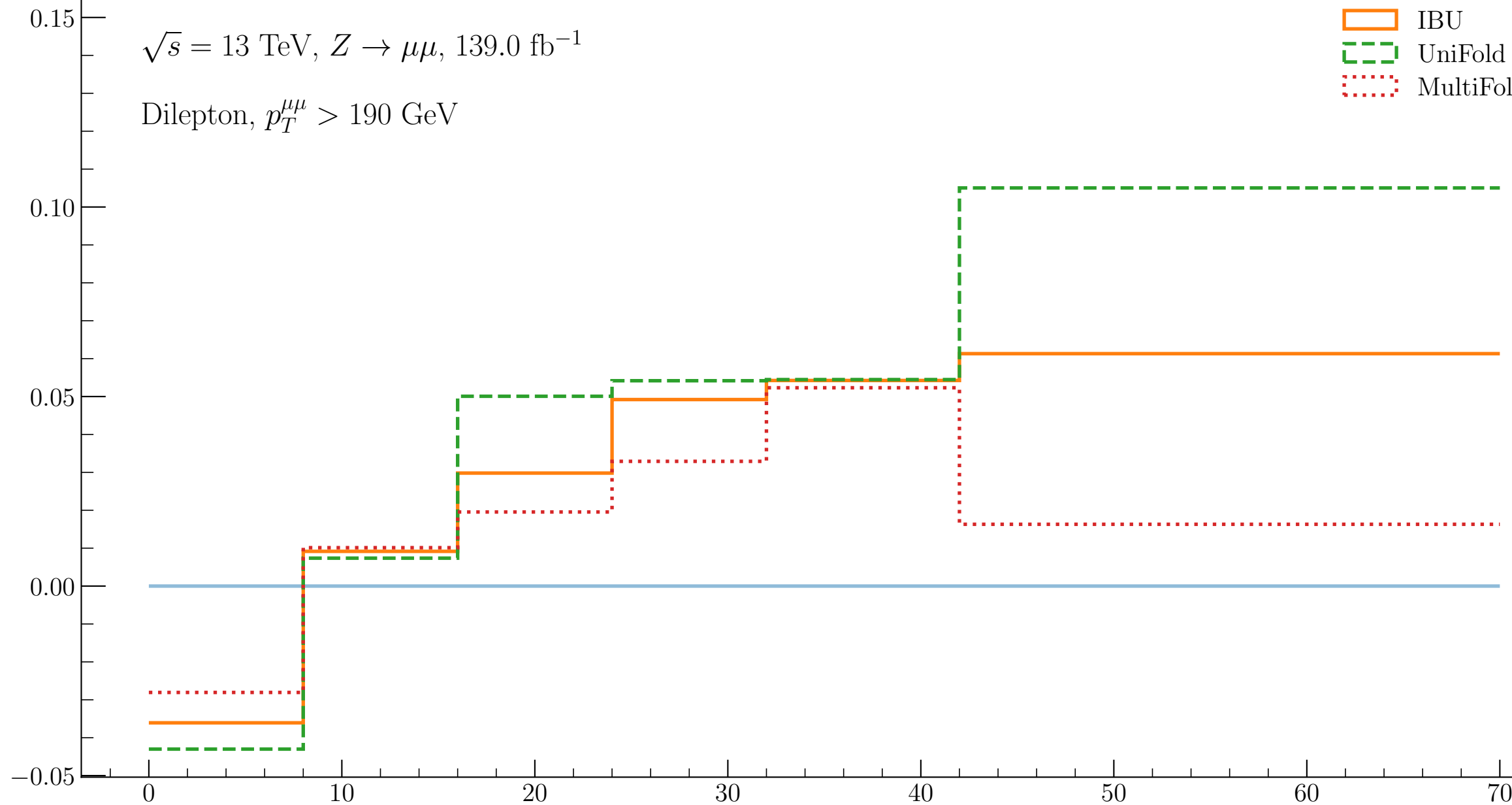
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet m [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

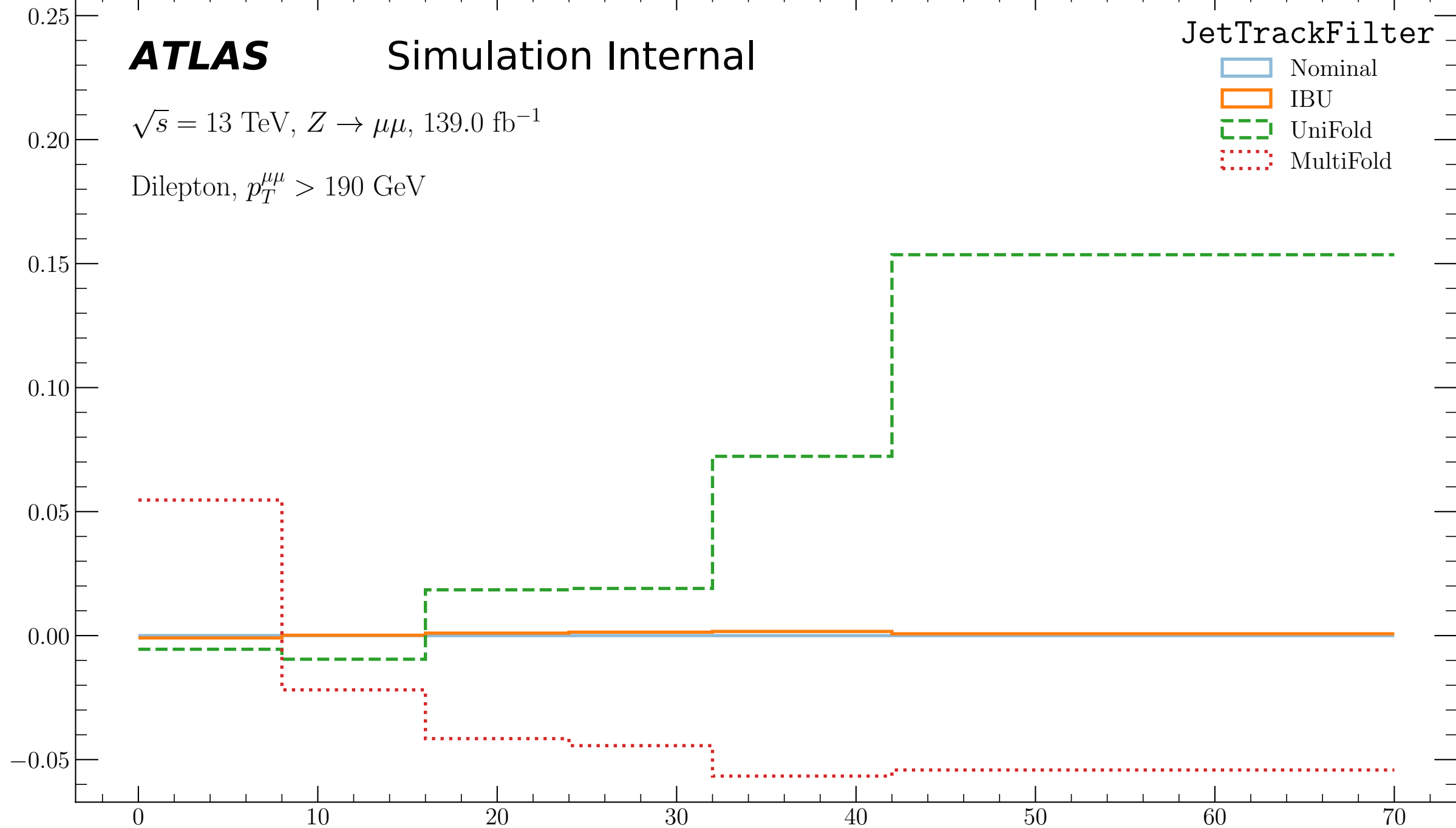
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet m [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

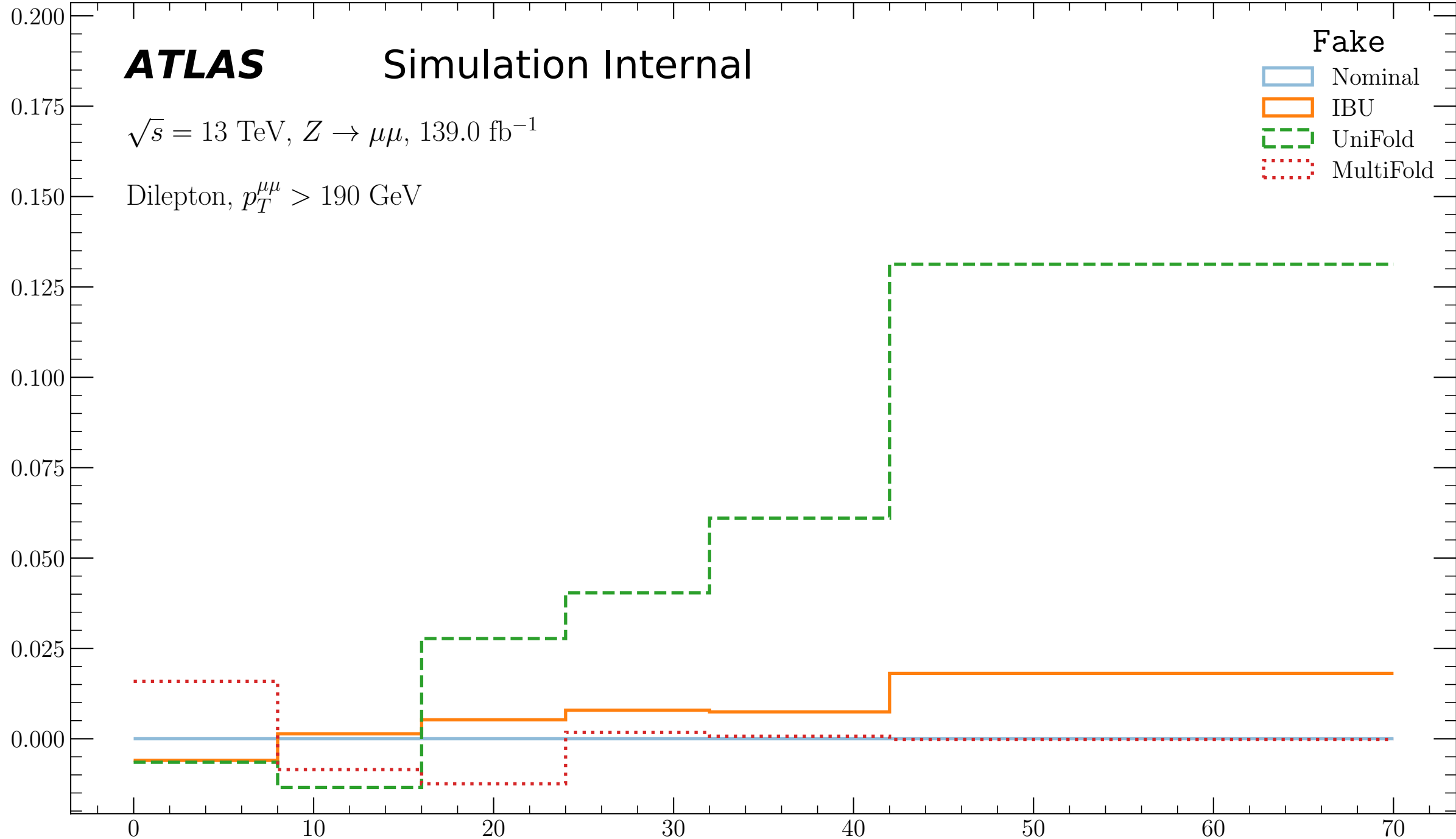
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet m [GeV]

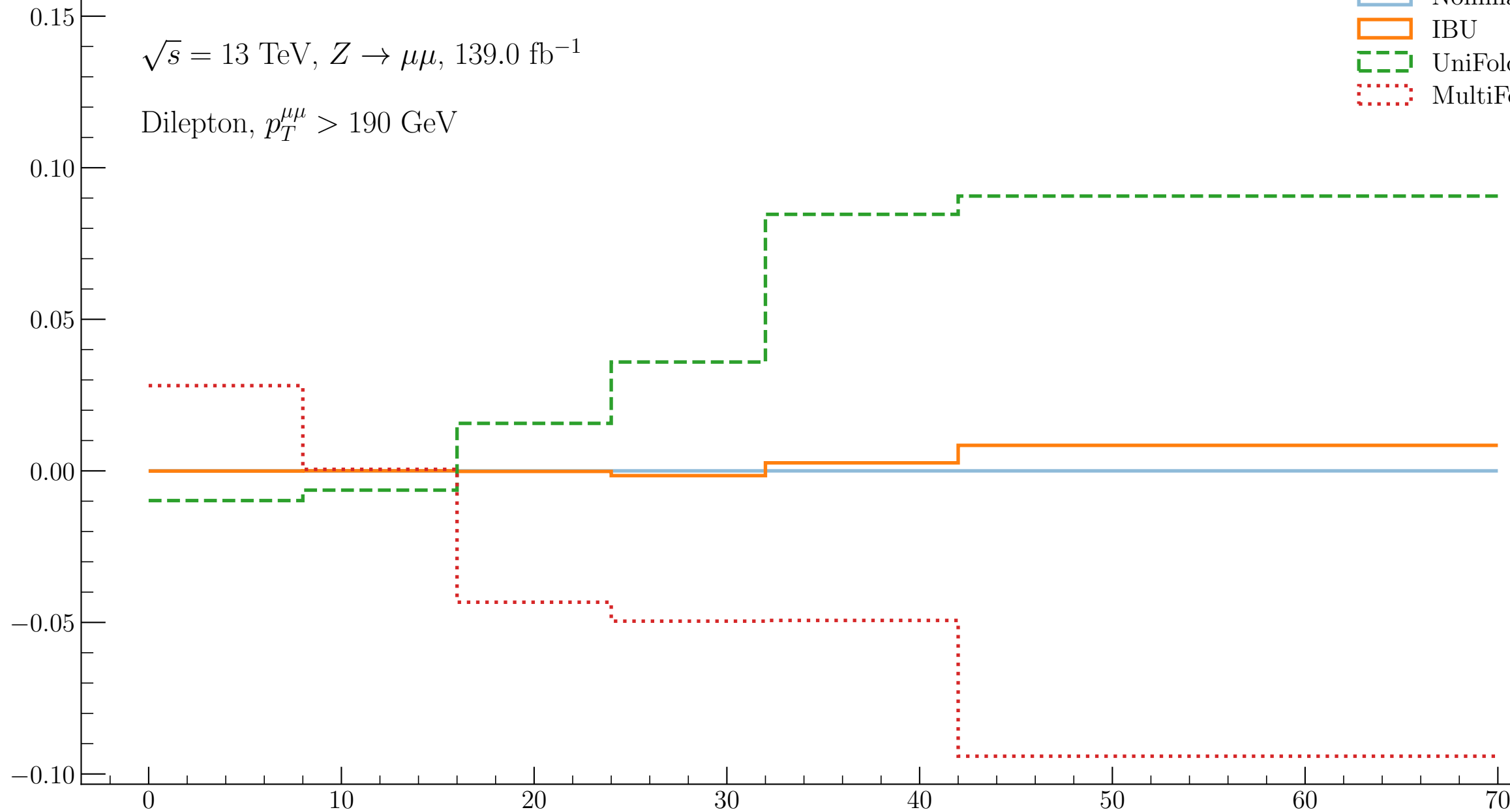
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet m [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

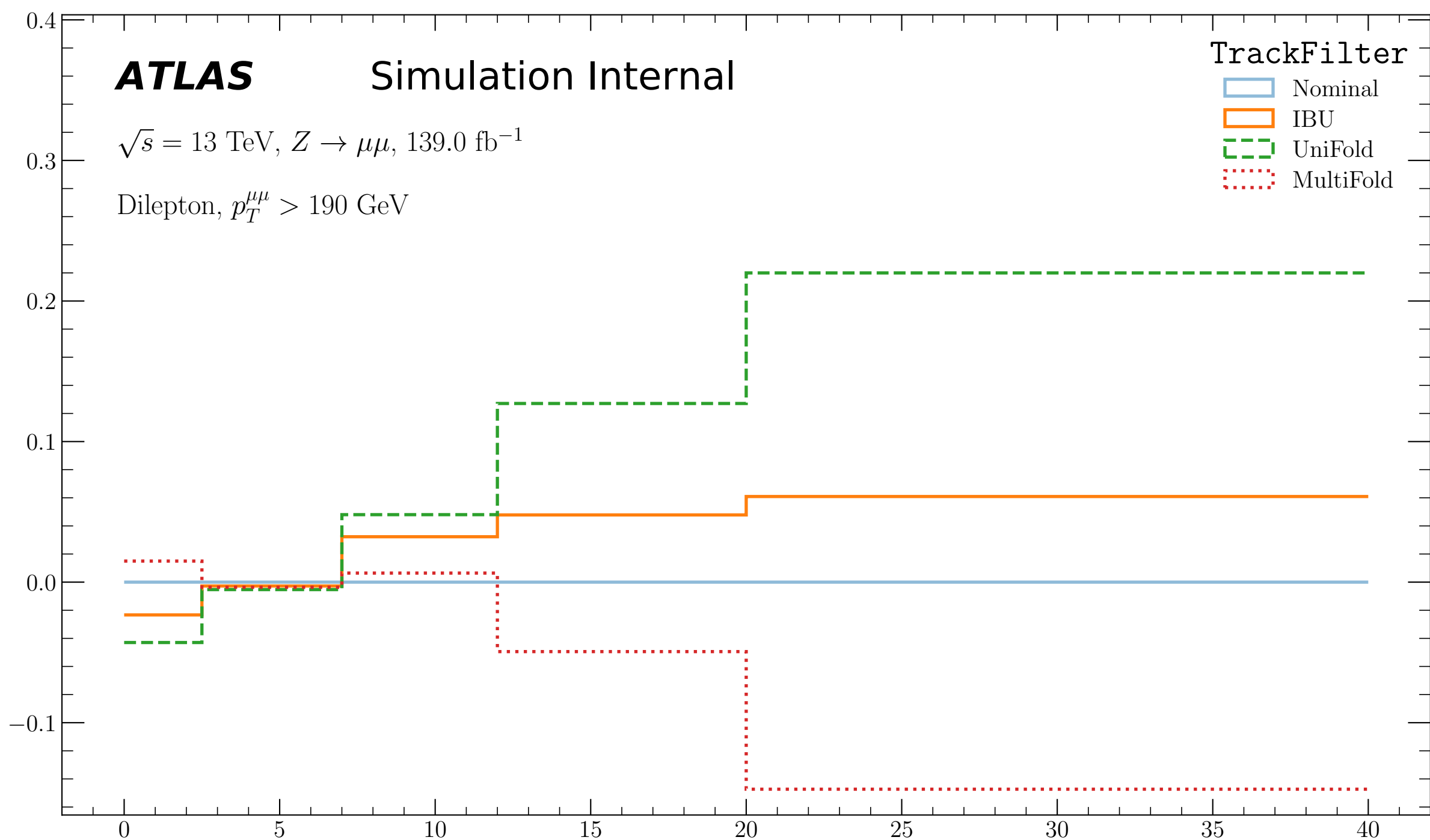
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}$, $Z \rightarrow \mu\mu$, 139.0 fb^{-1}

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet m [GeV]

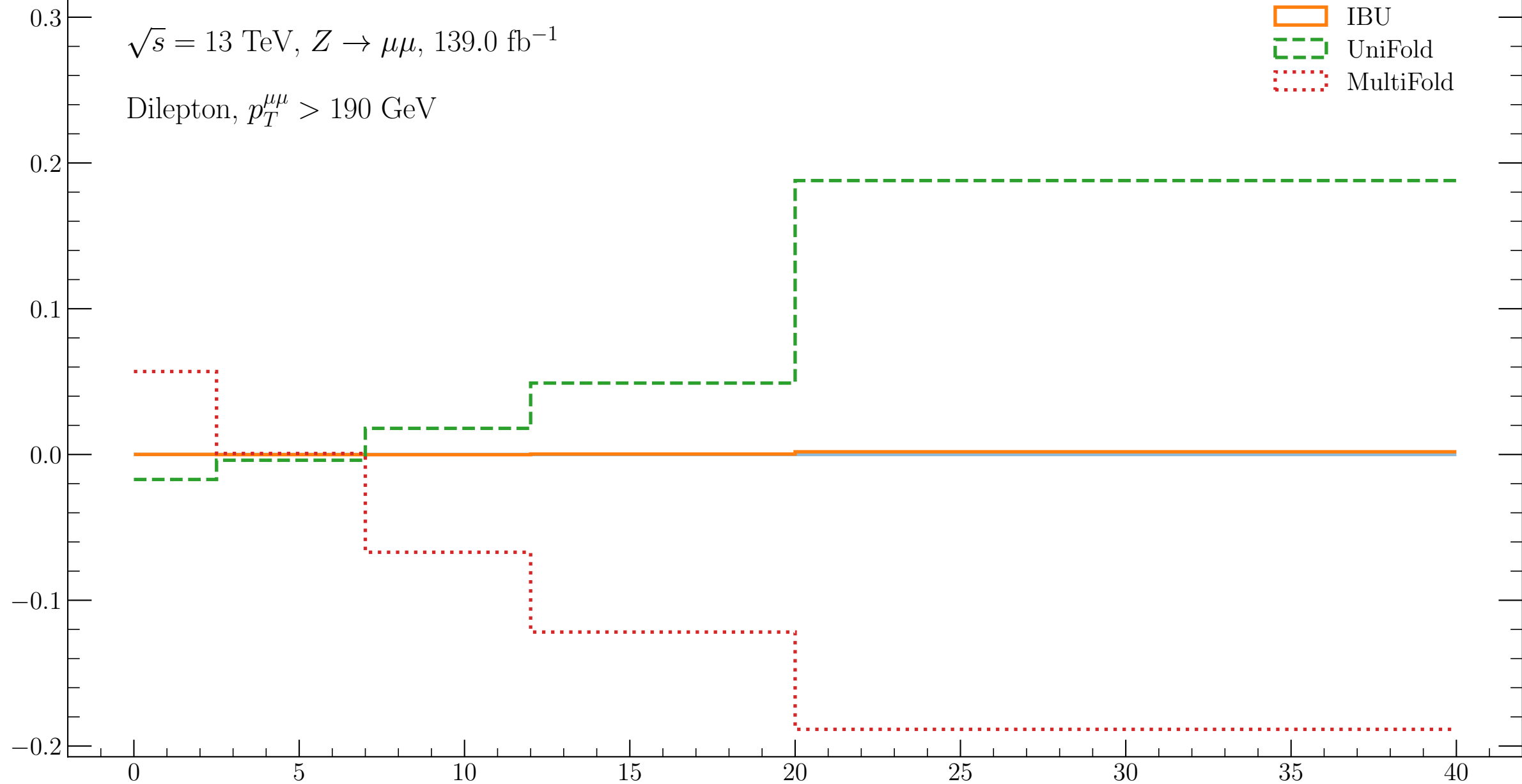
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet m [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

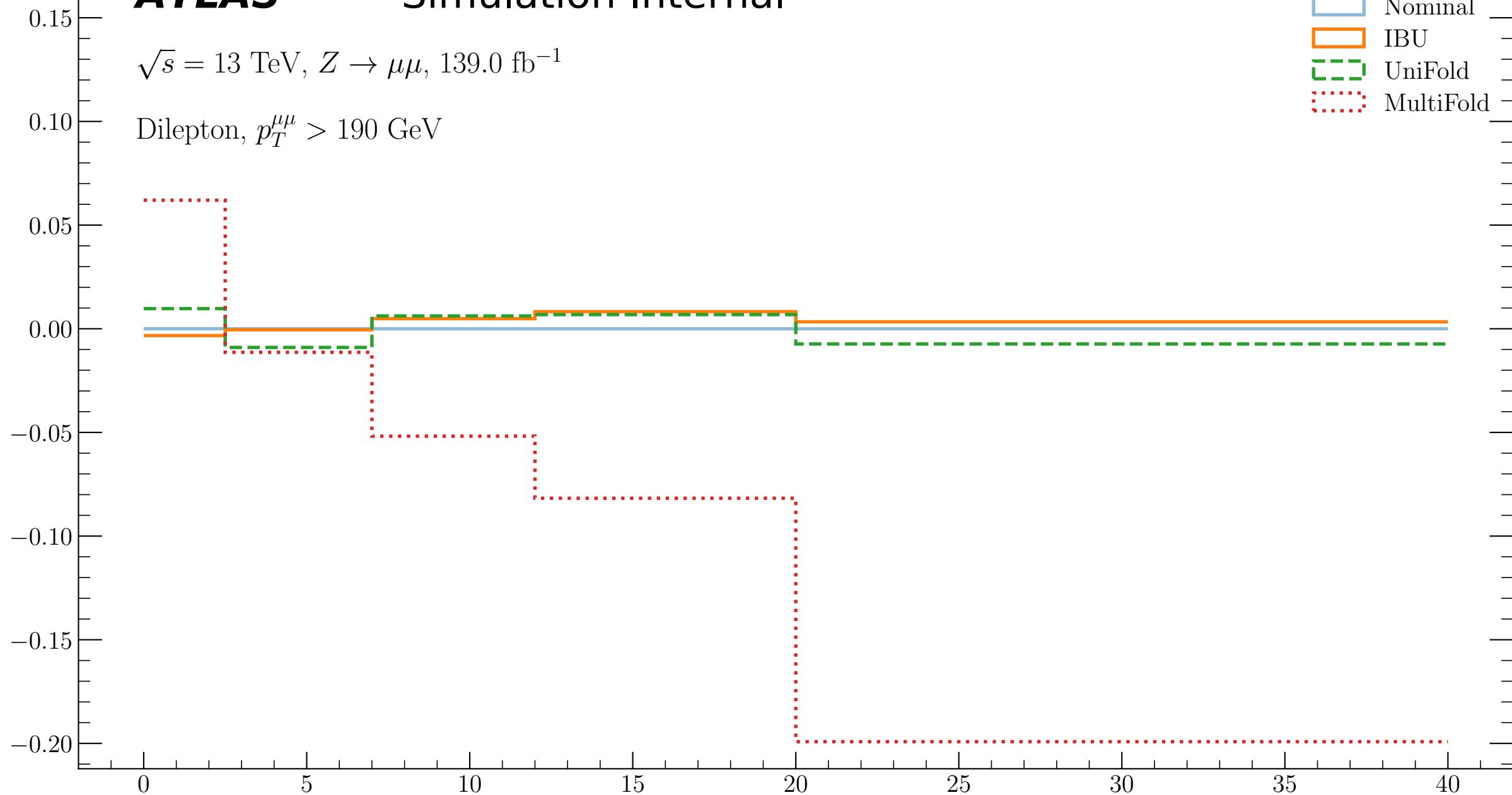
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}$, $Z \rightarrow \mu\mu$, 139.0 fb^{-1}

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet m [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

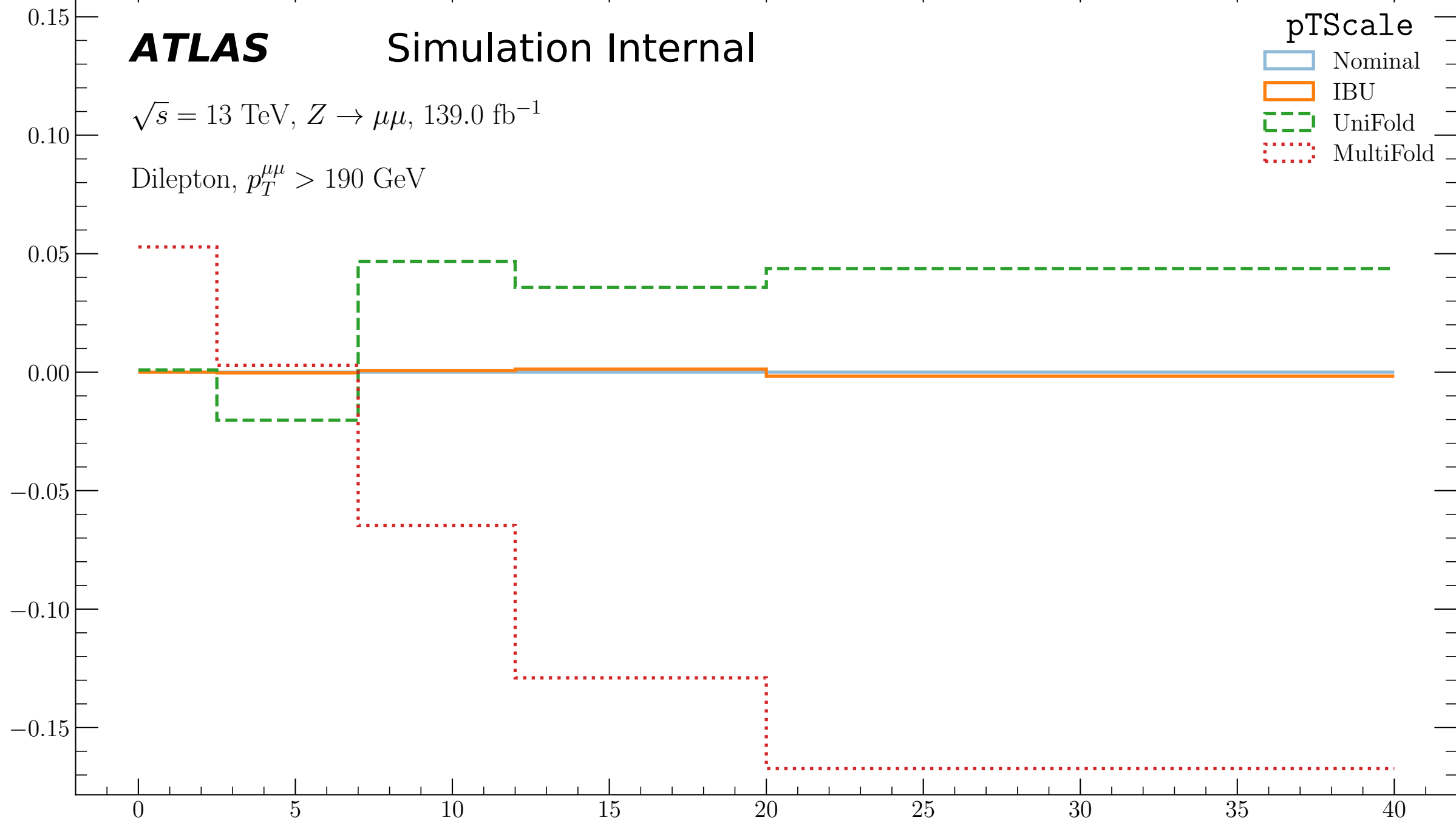
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

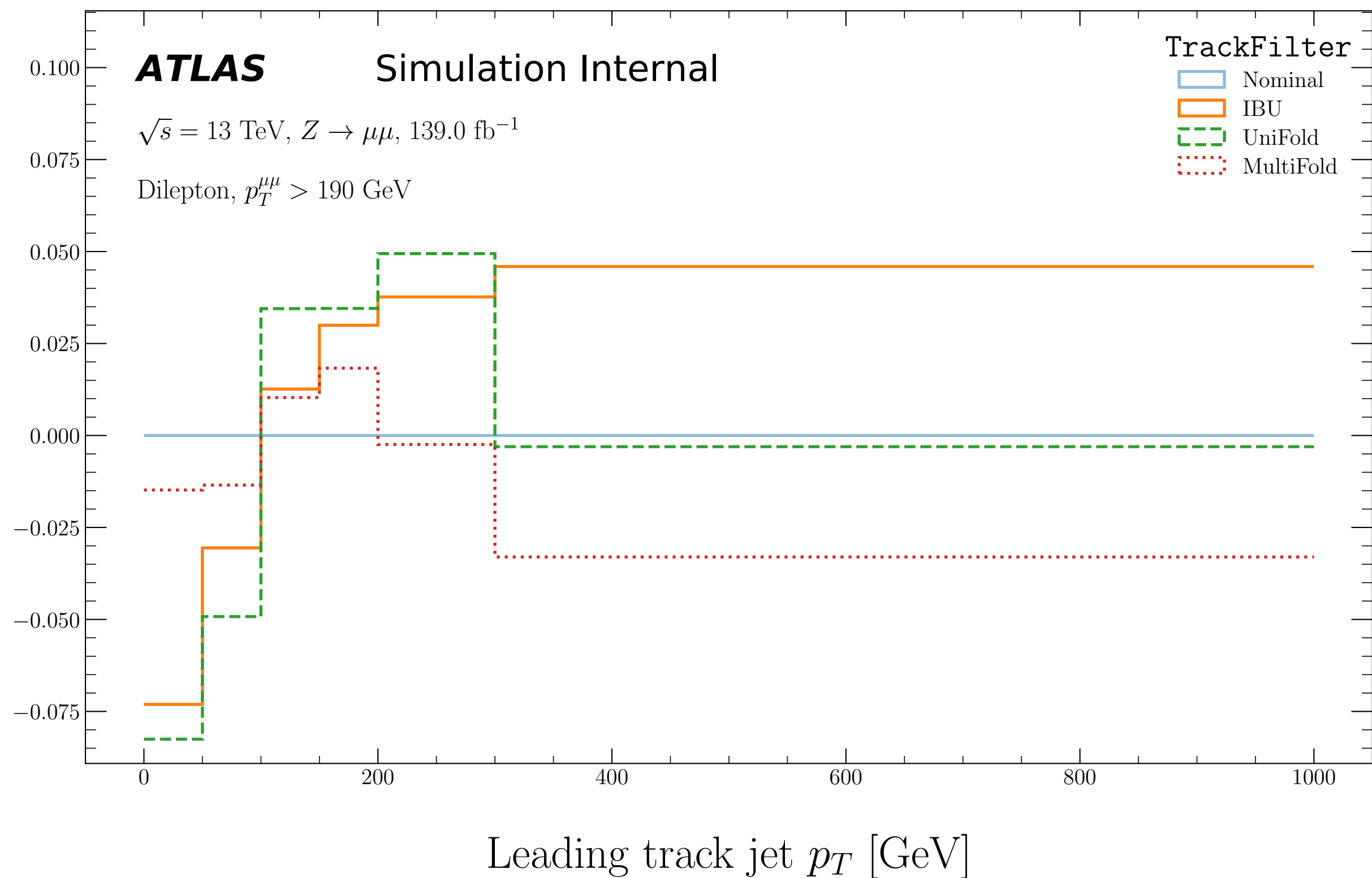
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

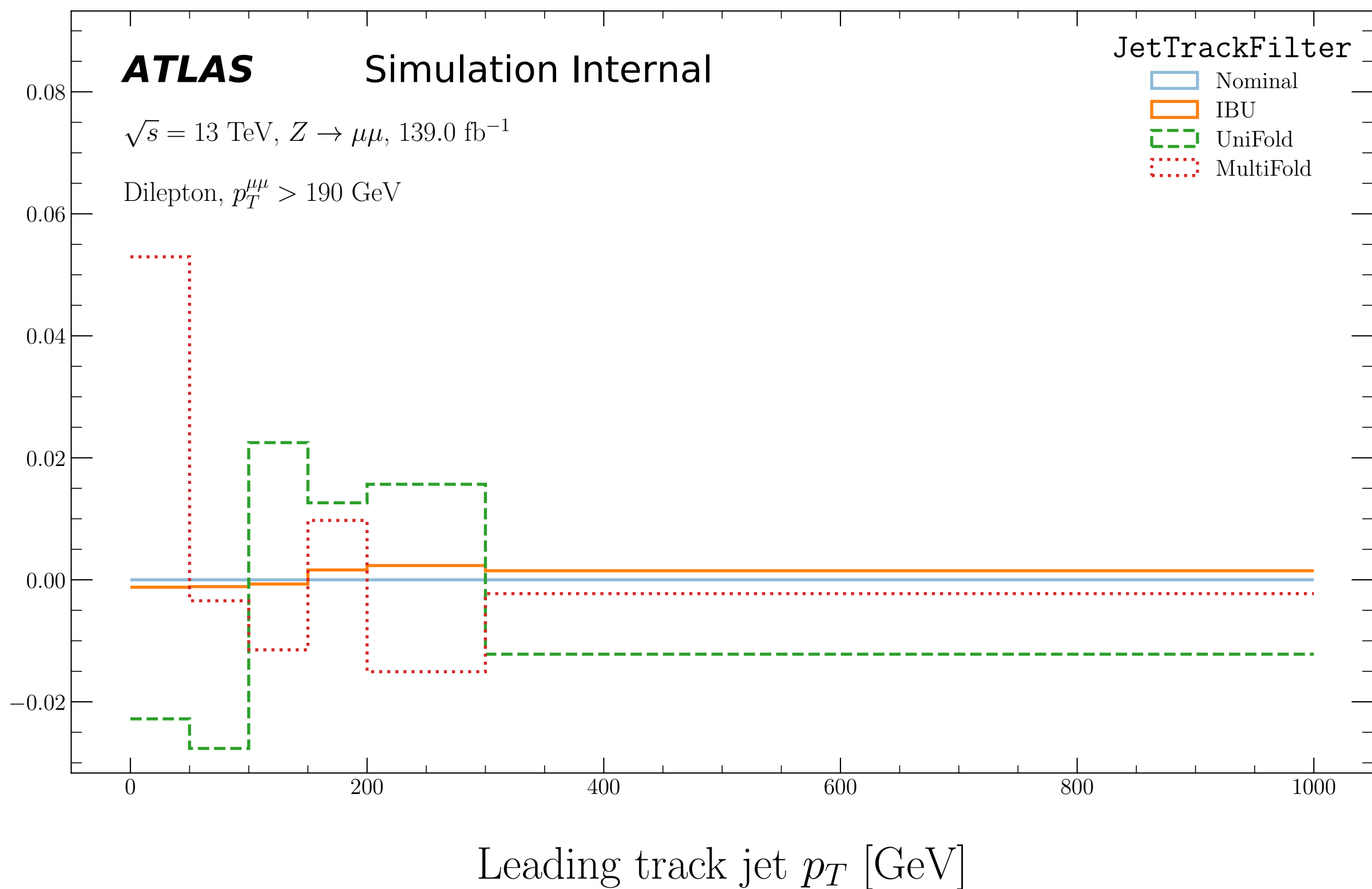
pTScale

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet m [GeV]





Relative Systematic Effect (MultiFold)

ATLAS

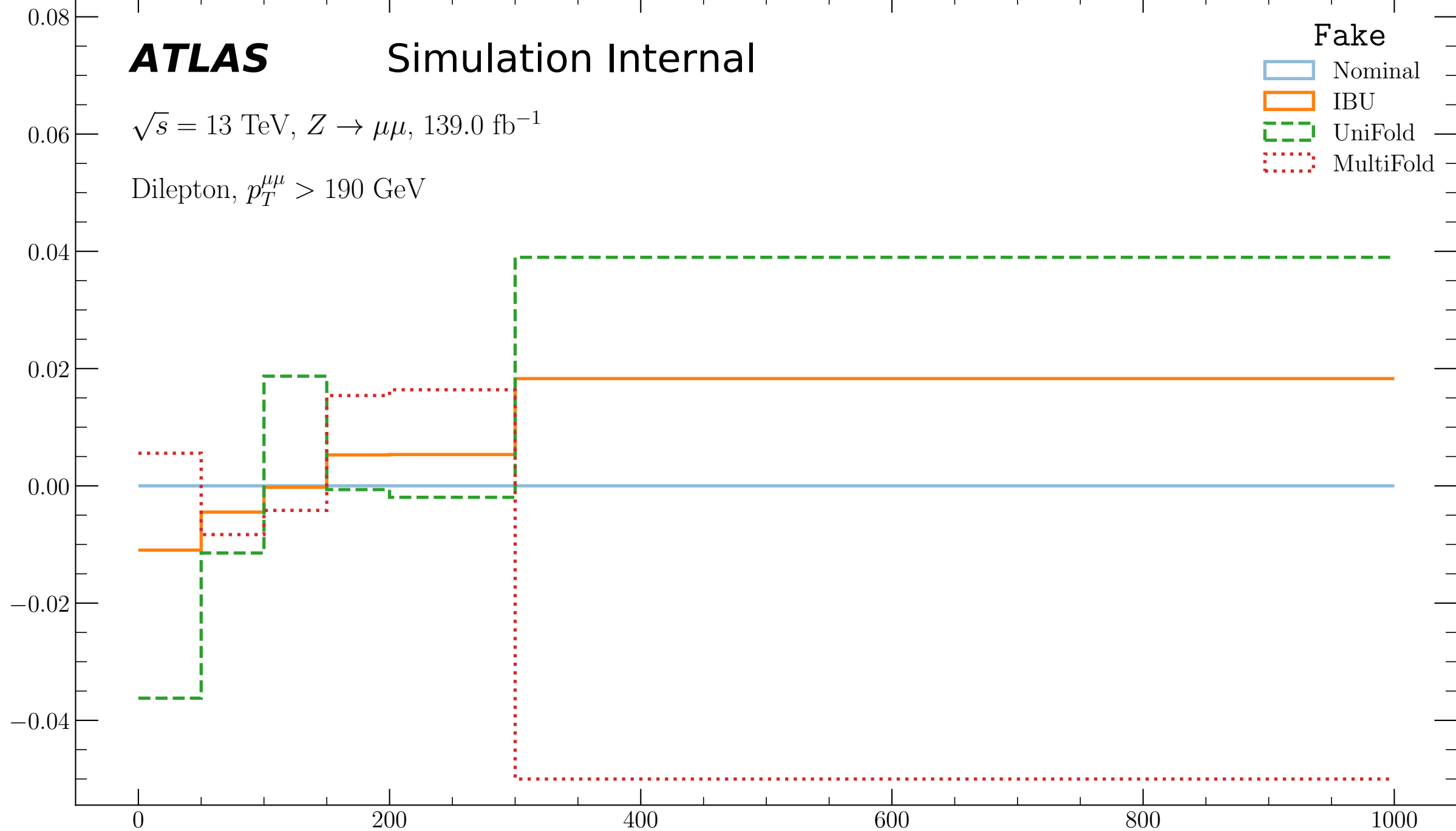
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet p_T [GeV]

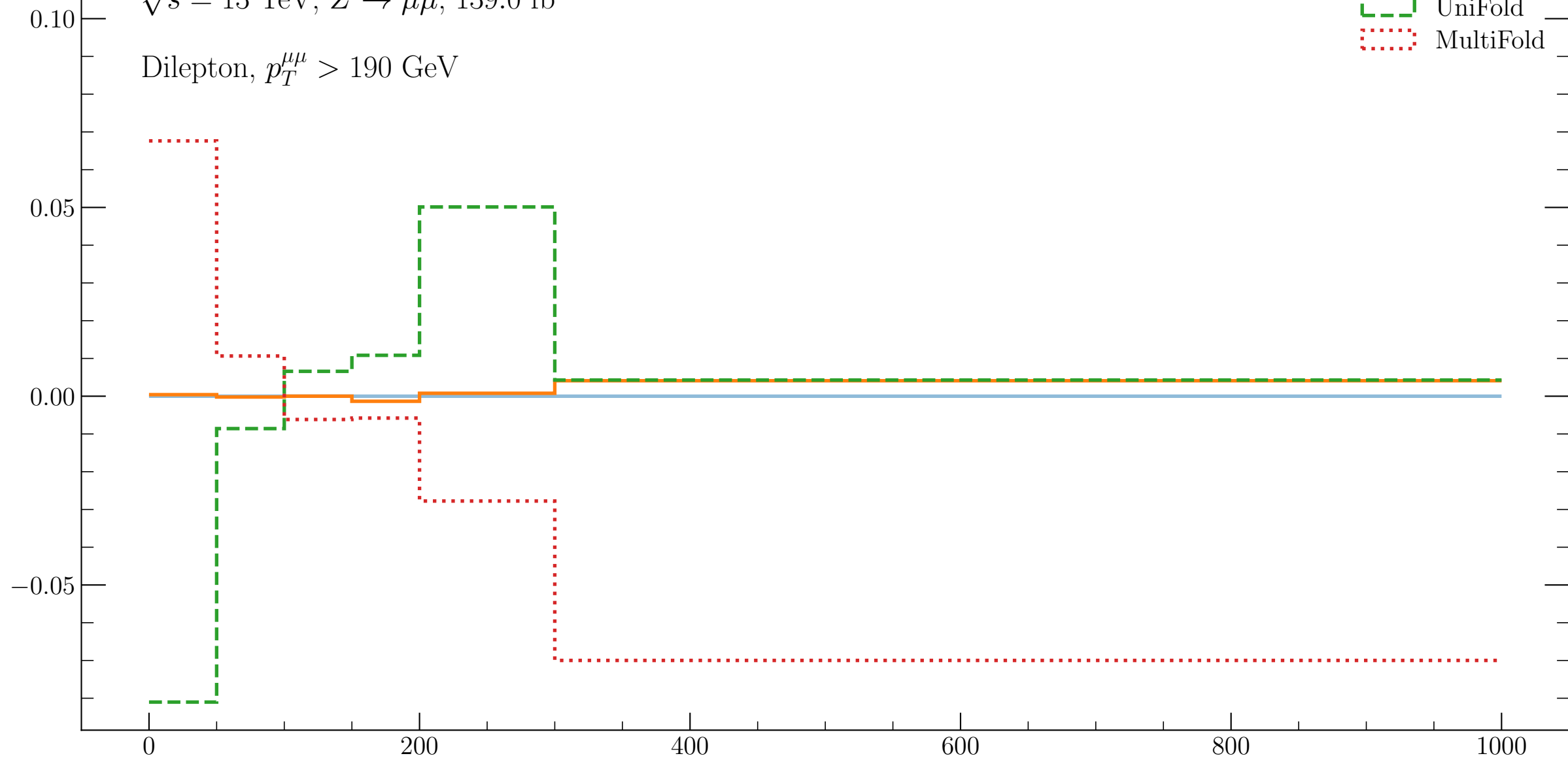
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet p_T [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

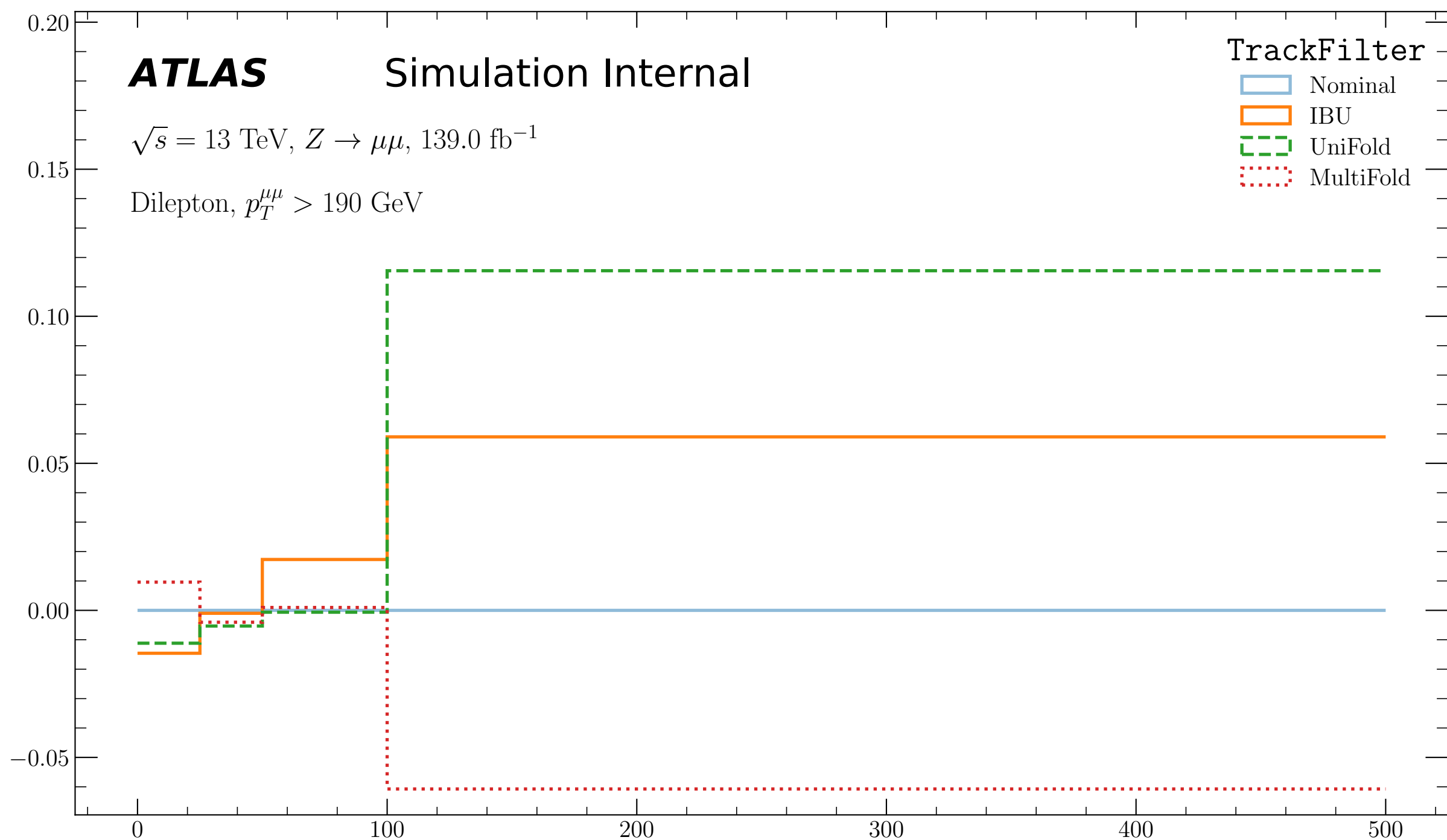
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

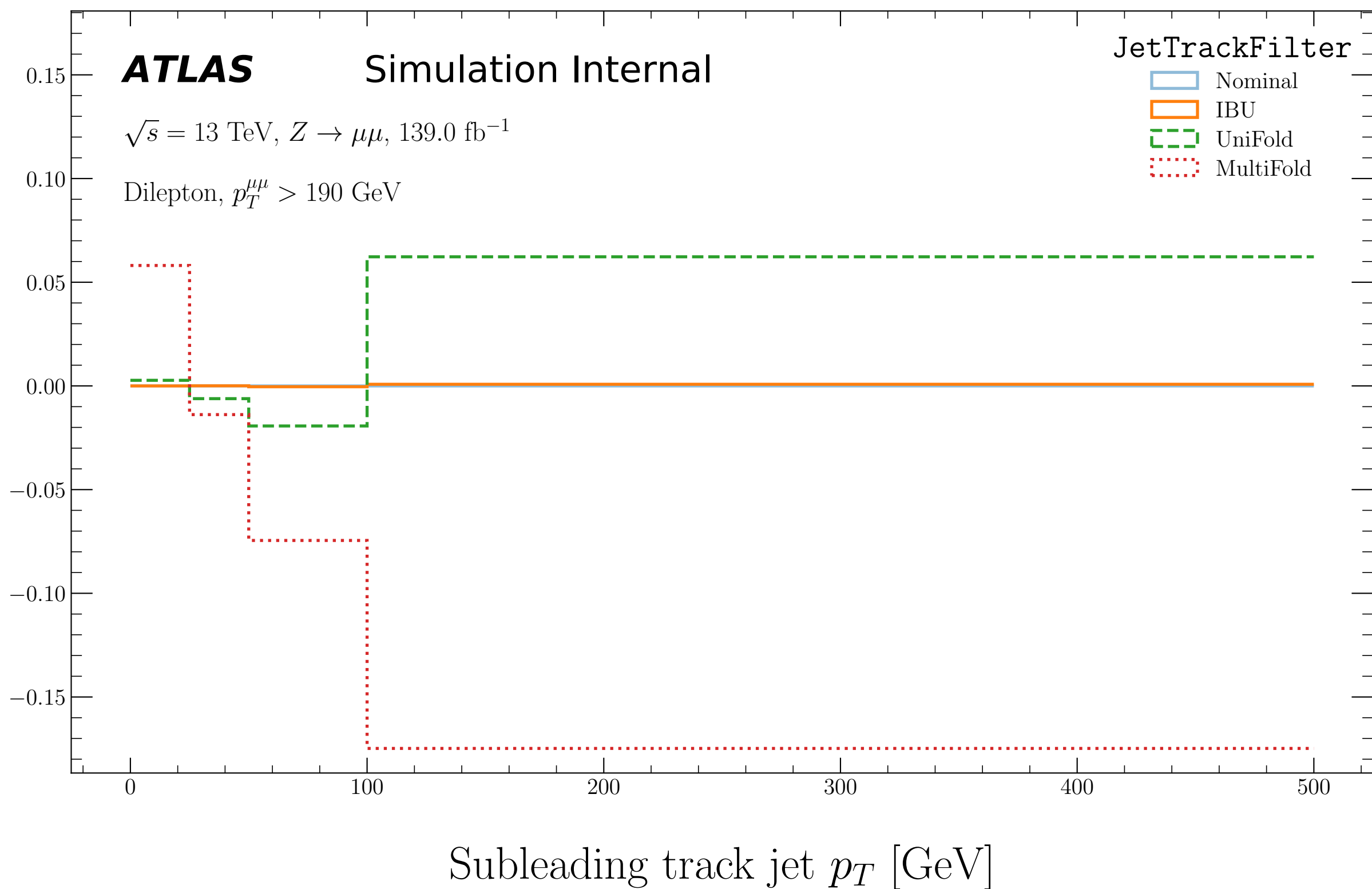
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet p_T [GeV]



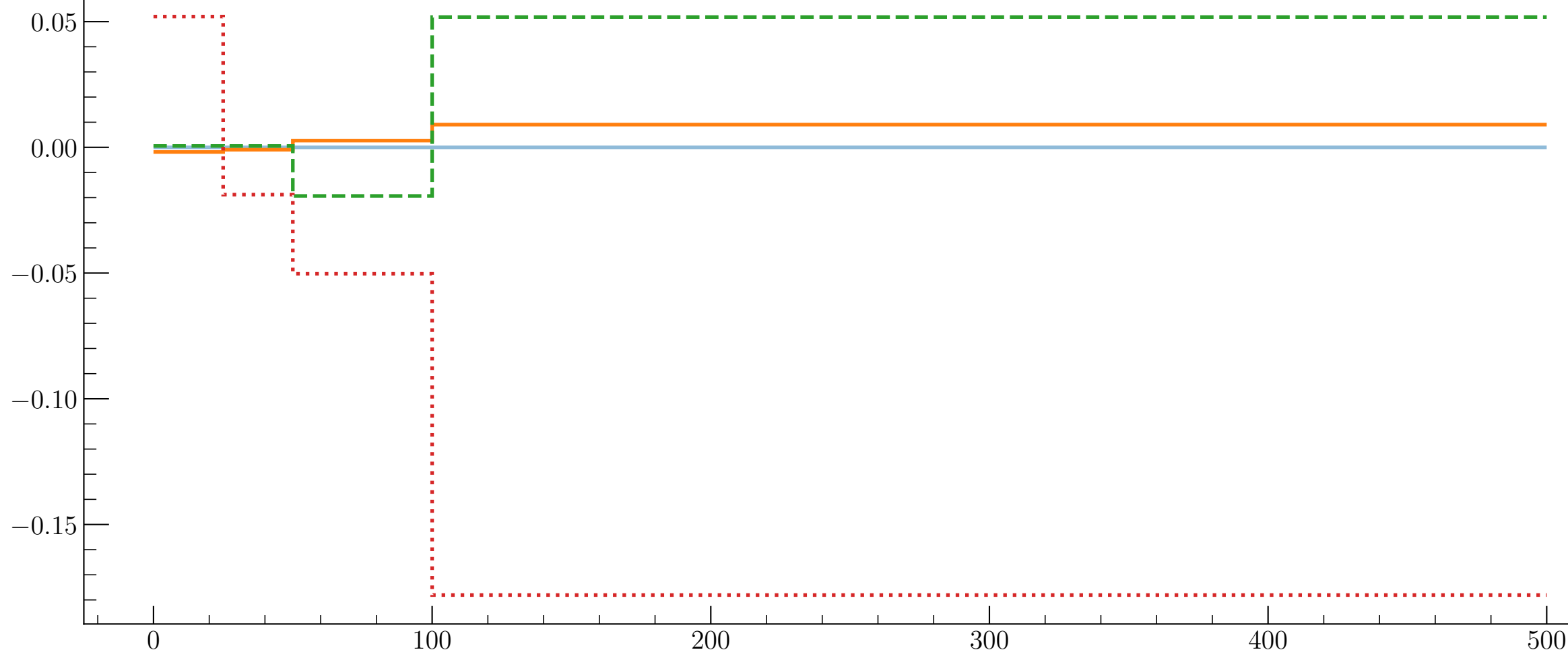
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet p_T [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

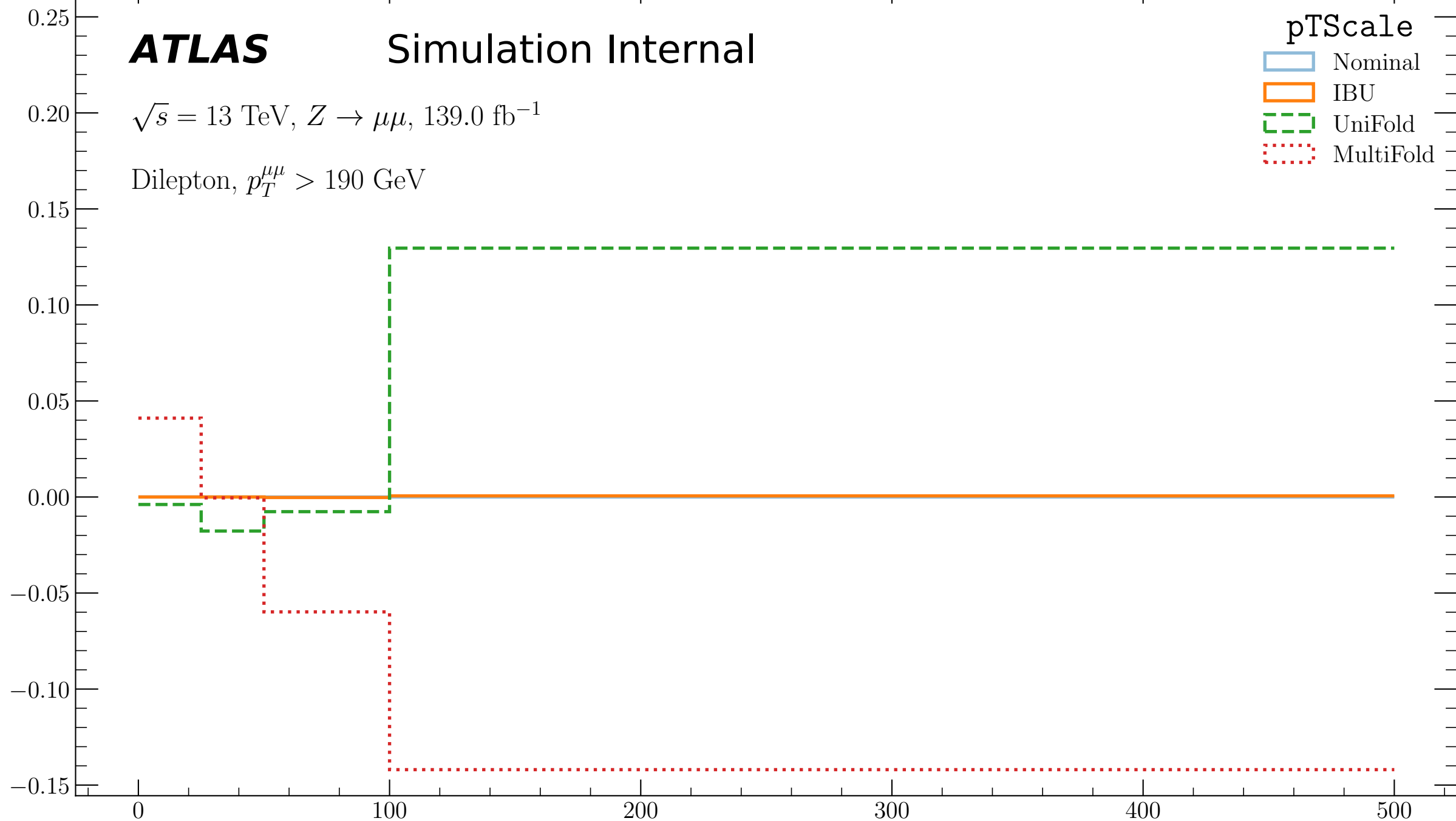
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet p_T [GeV]

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

0.06

0.04

0.02

0.00

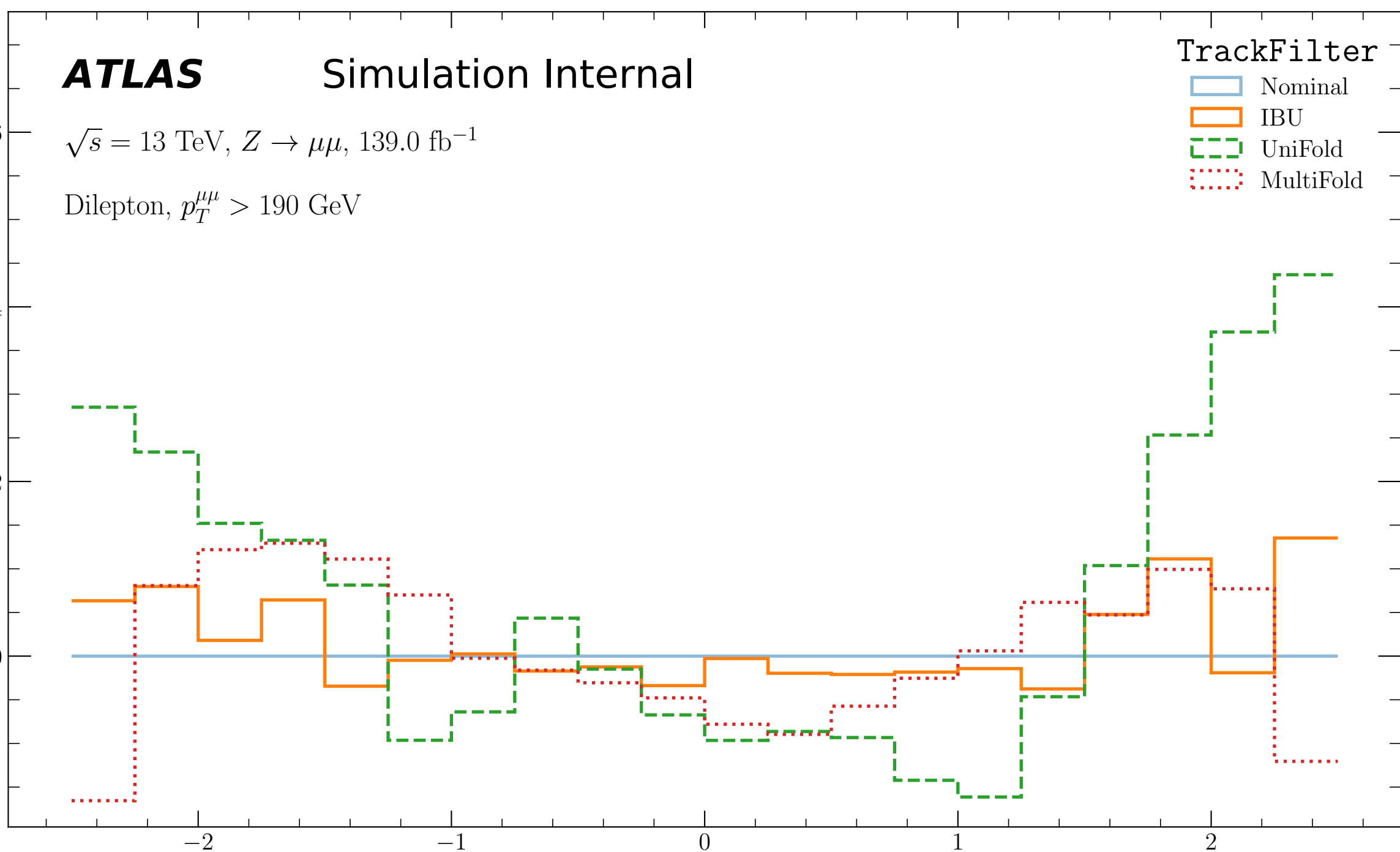
-2

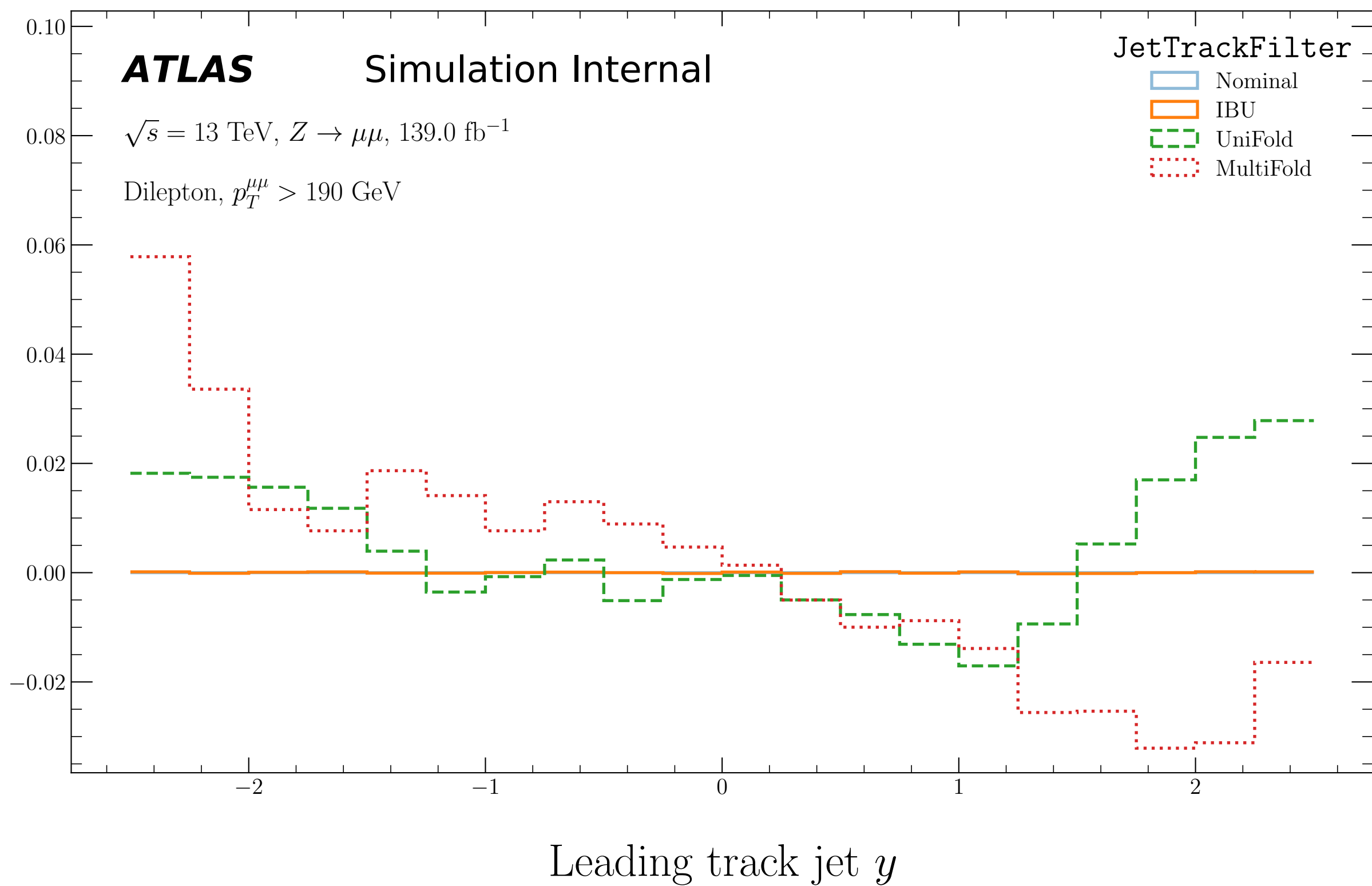
-1

0

1

2

Leading track jet y 



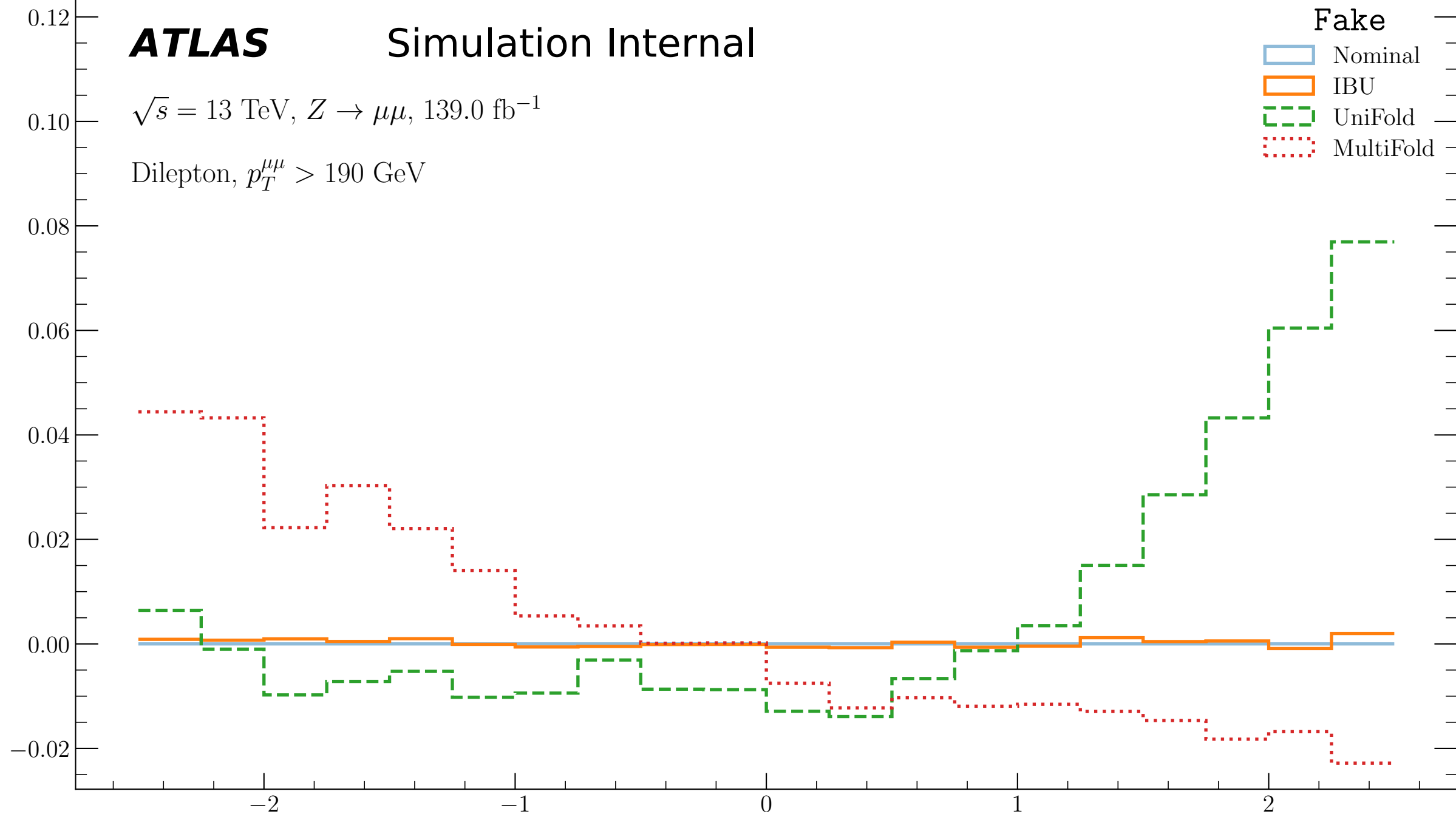
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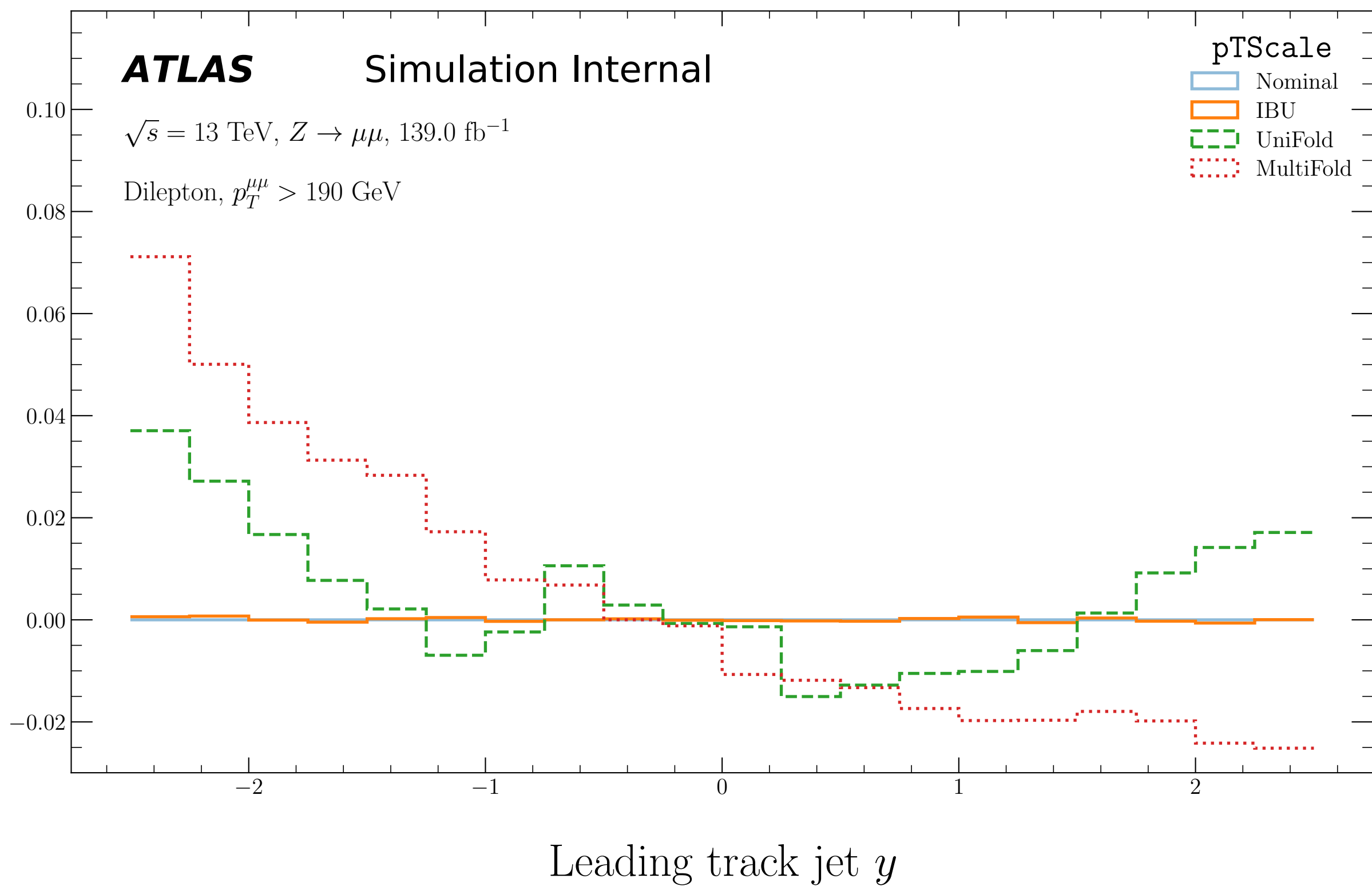
Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet y



Relative Systematic Effect (MultiFold)

ATLAS

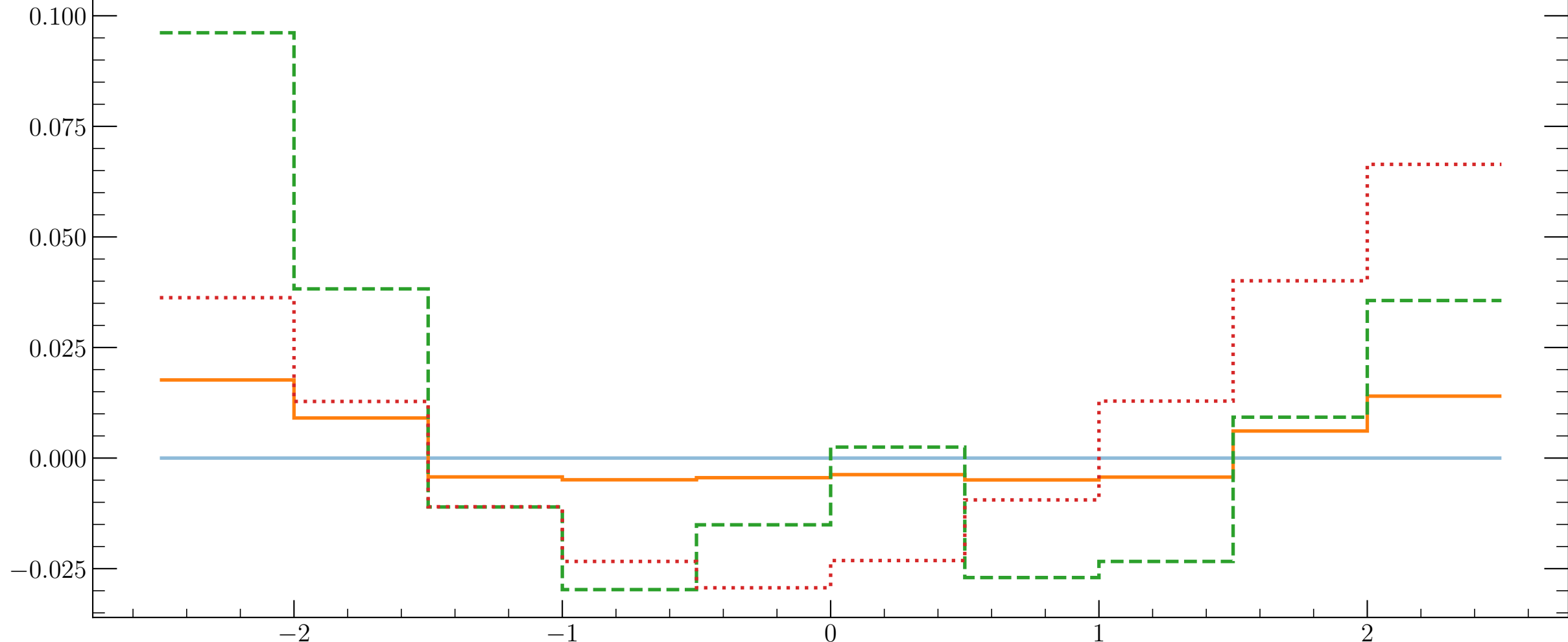
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

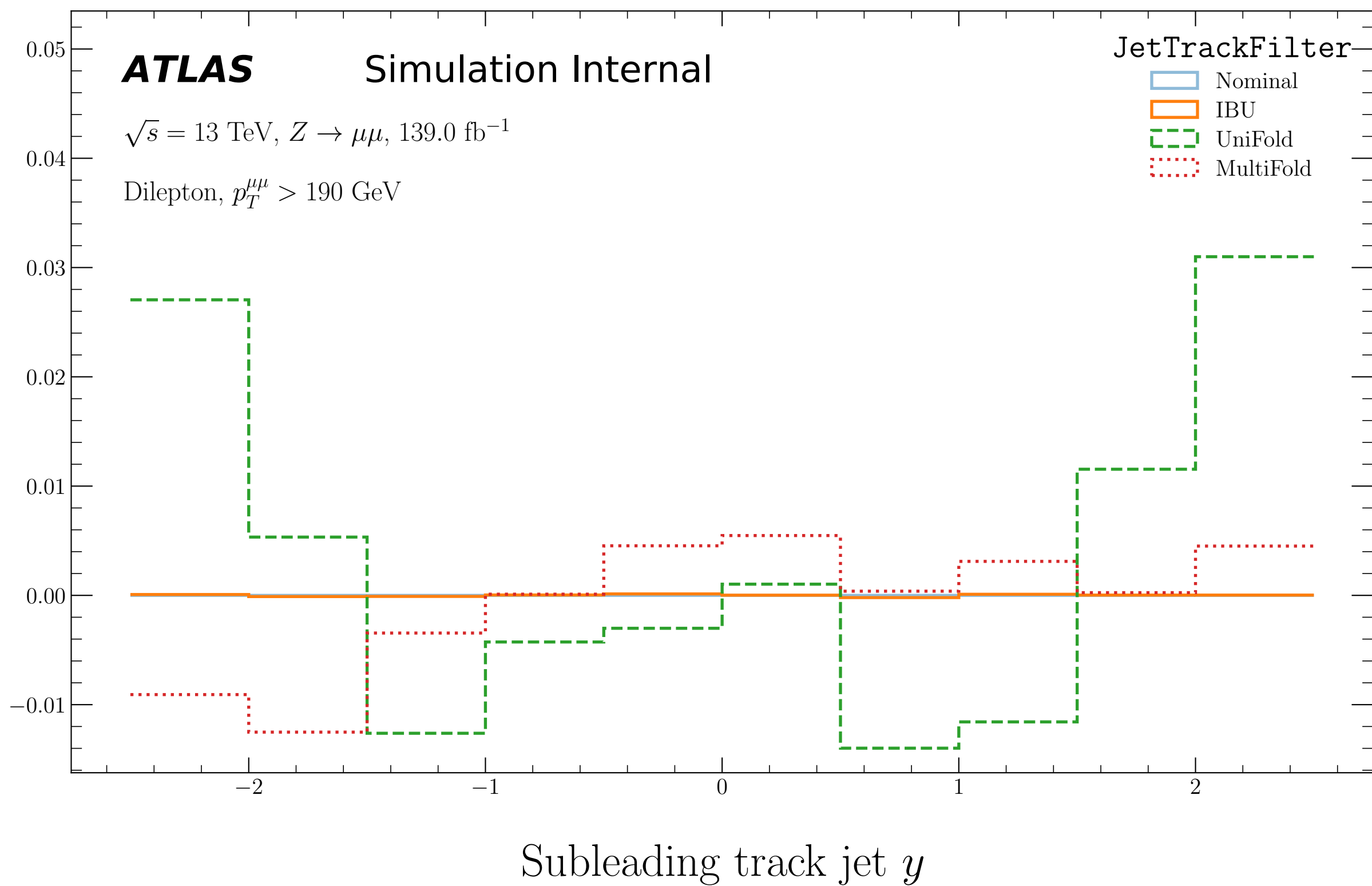
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet y



ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

0.08
0.06
0.04
0.02
0.00
-0.02

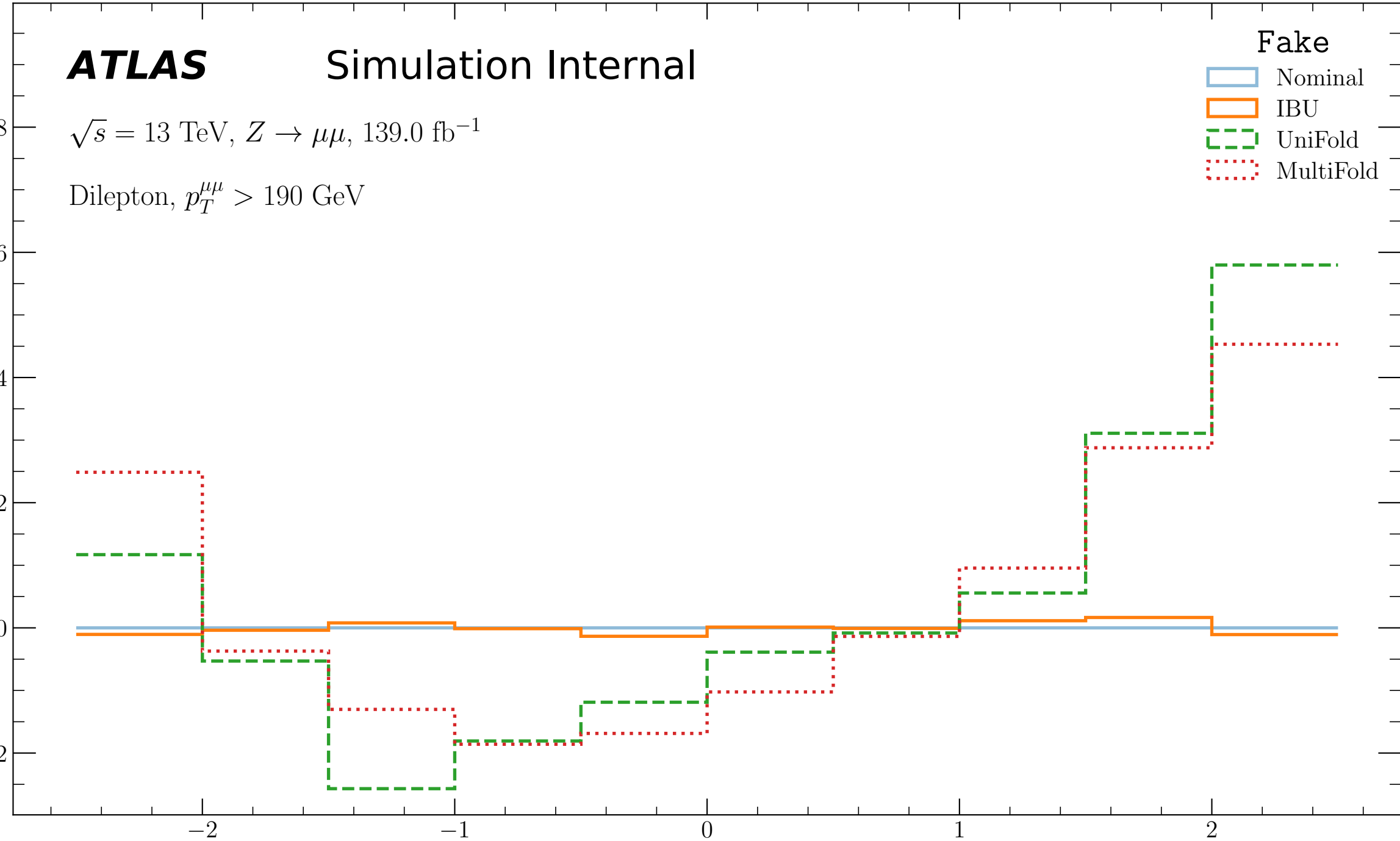
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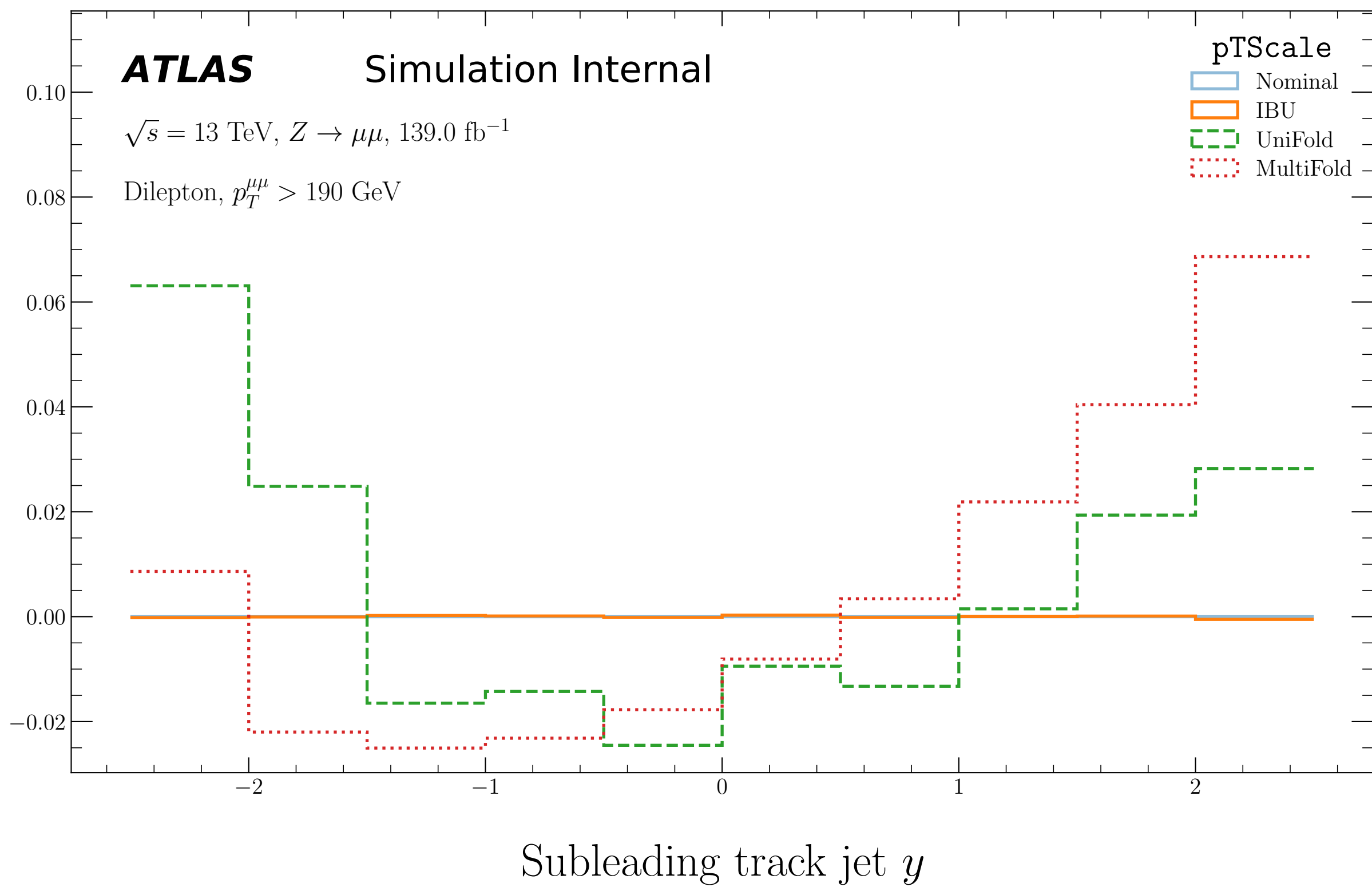
-1

0

1

2

Subleading track jet y 



ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

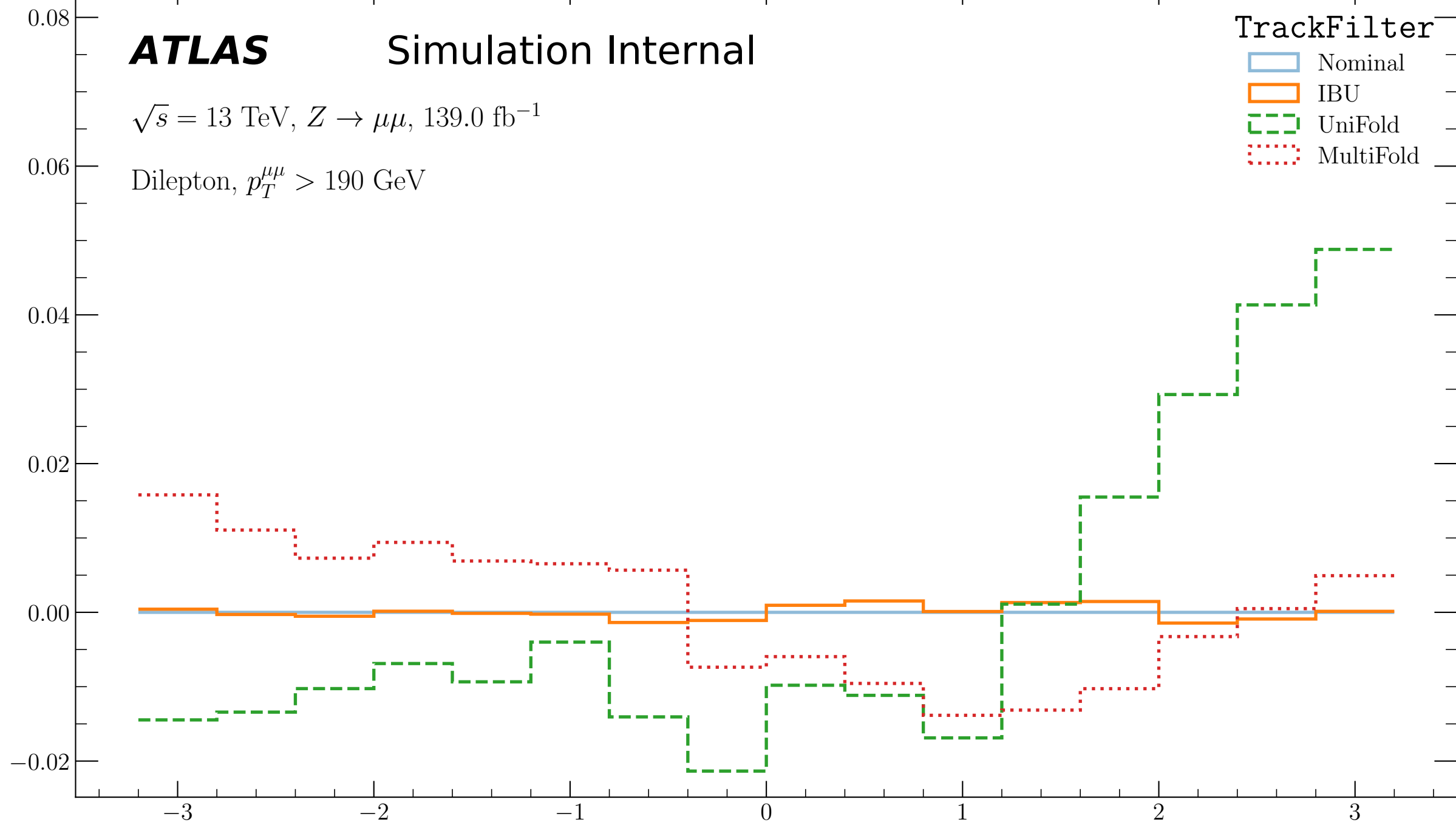
TrackFilter

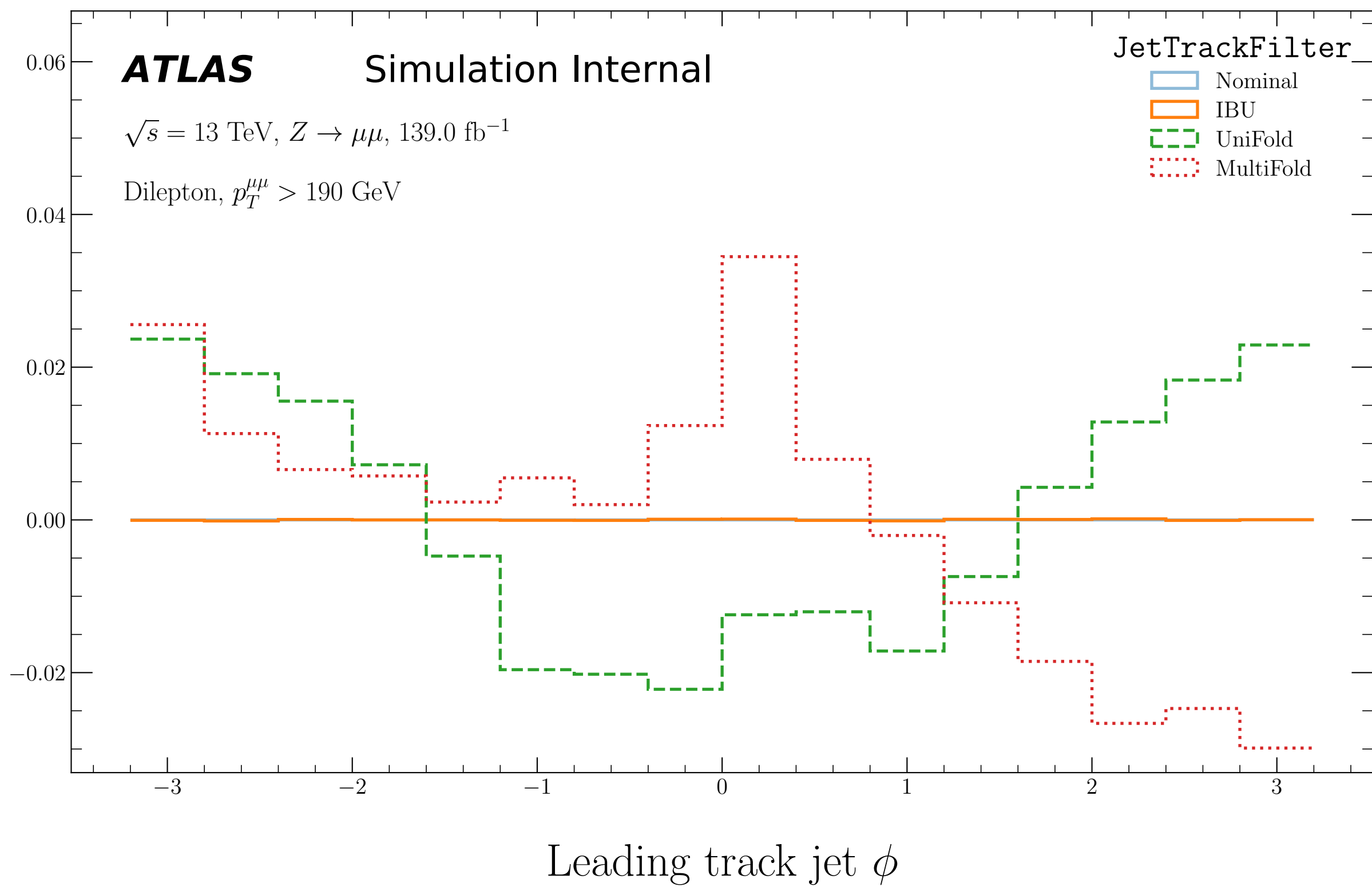
Nominal

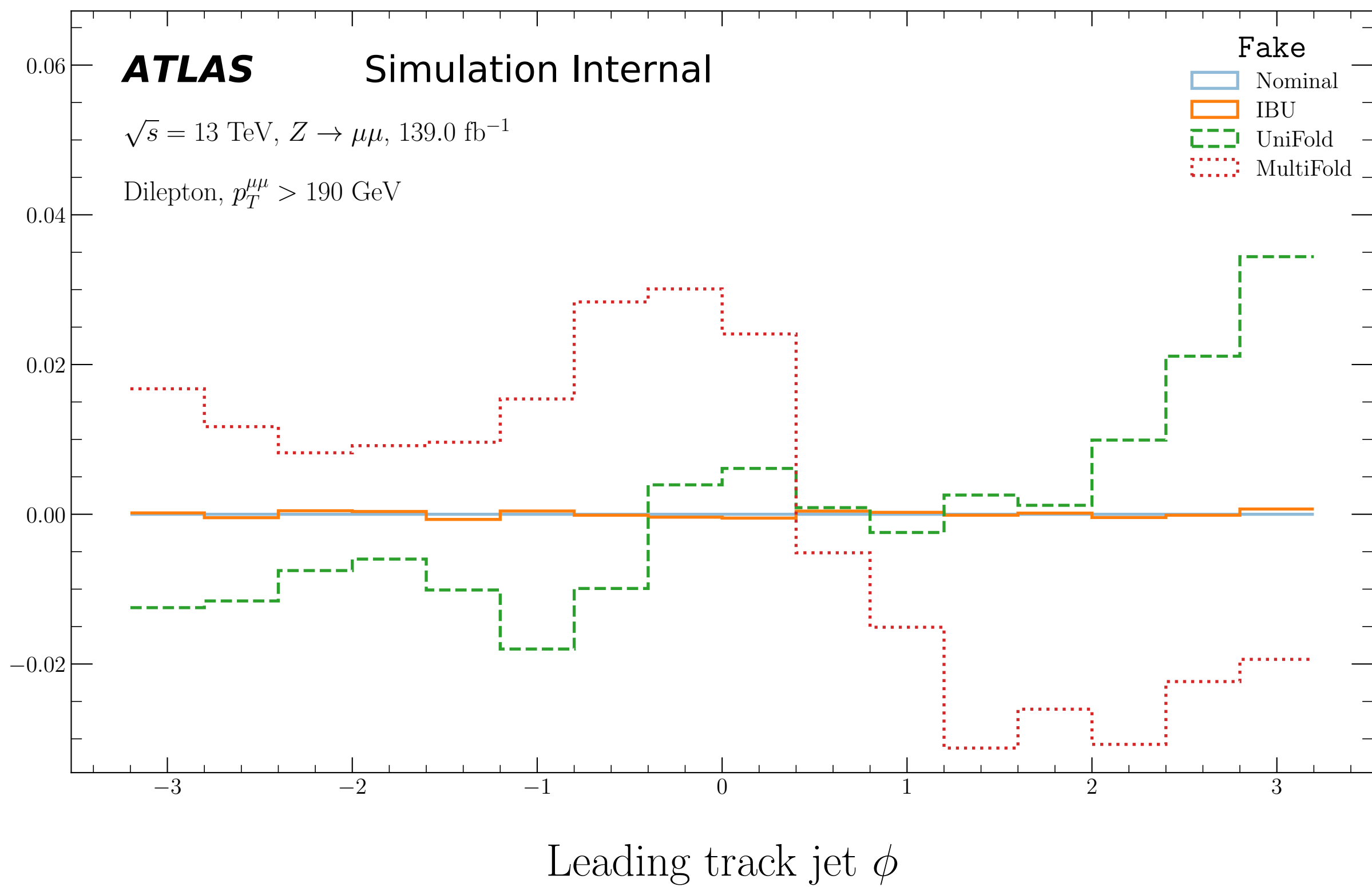
IBU

UniFold

MultiFold







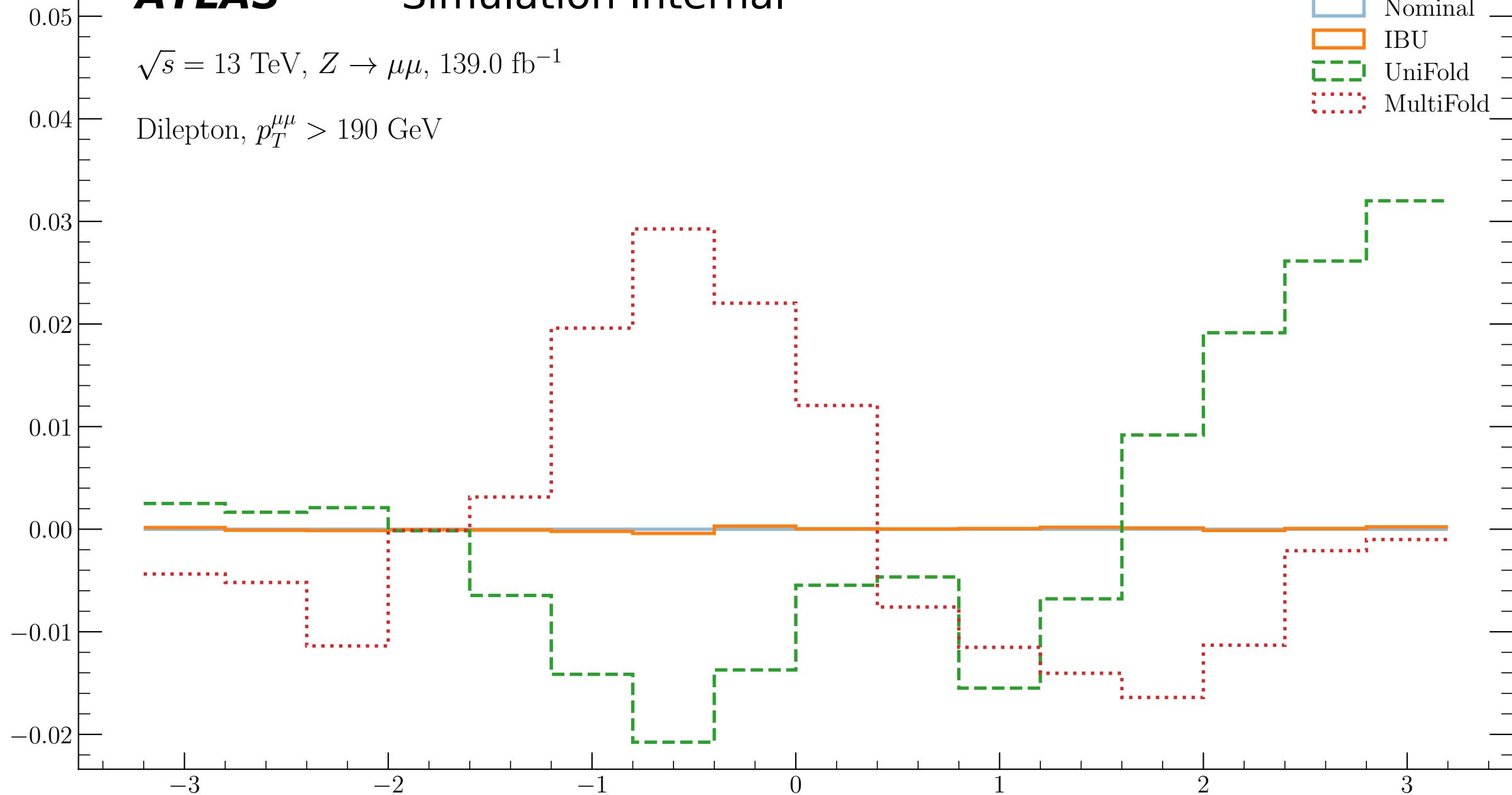
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet ϕ

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

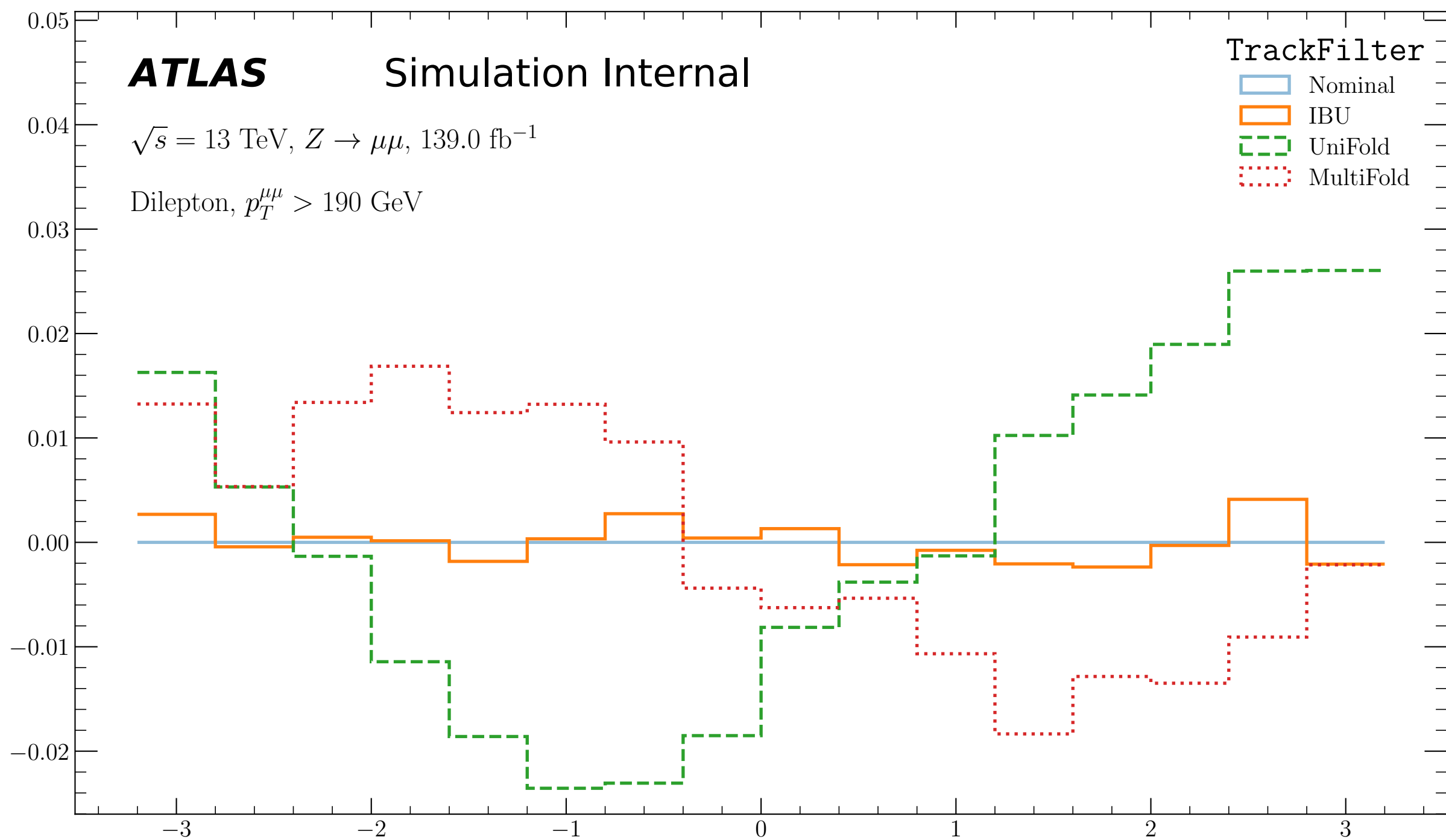
TrackFilter

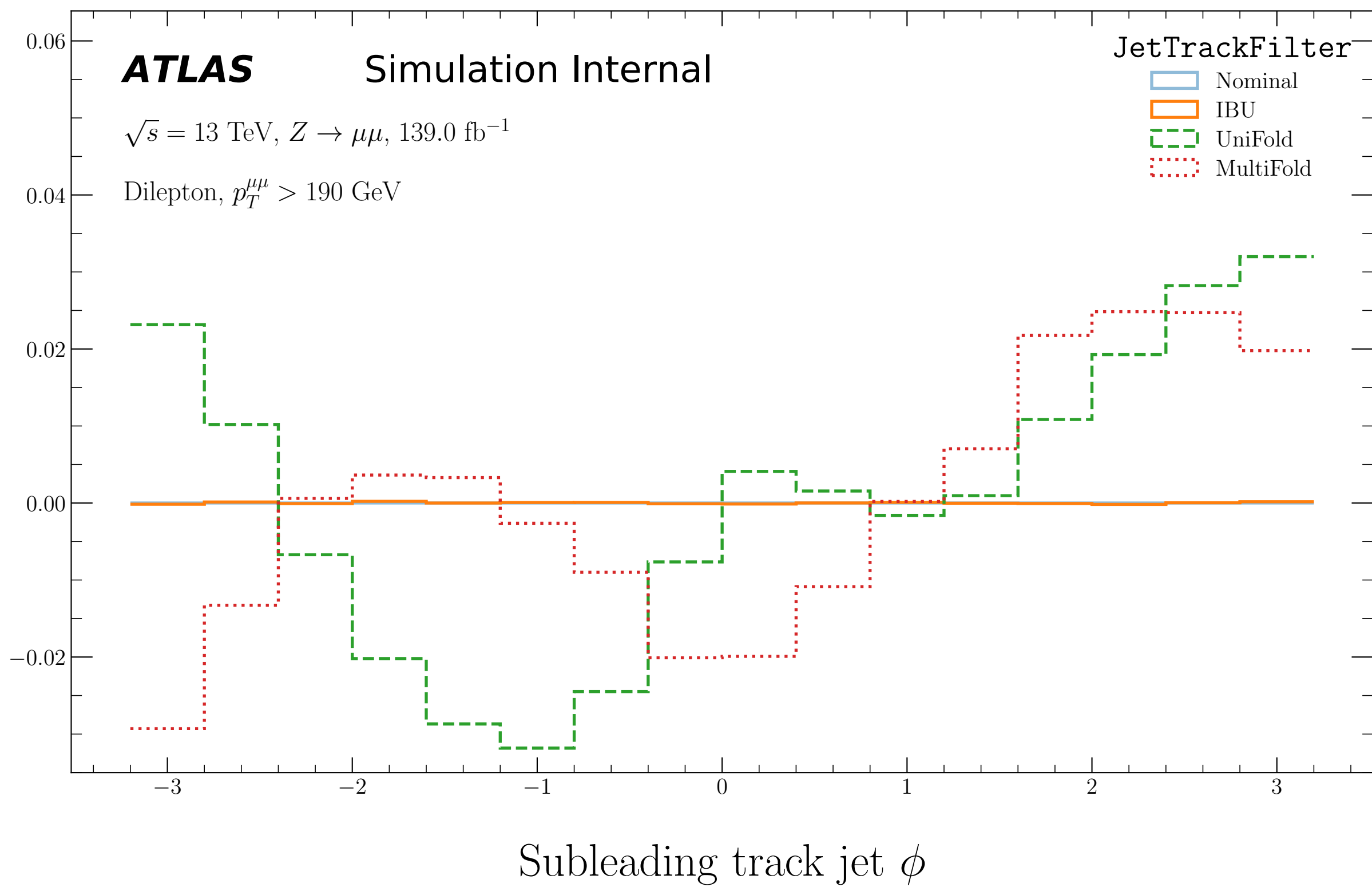
Nominal

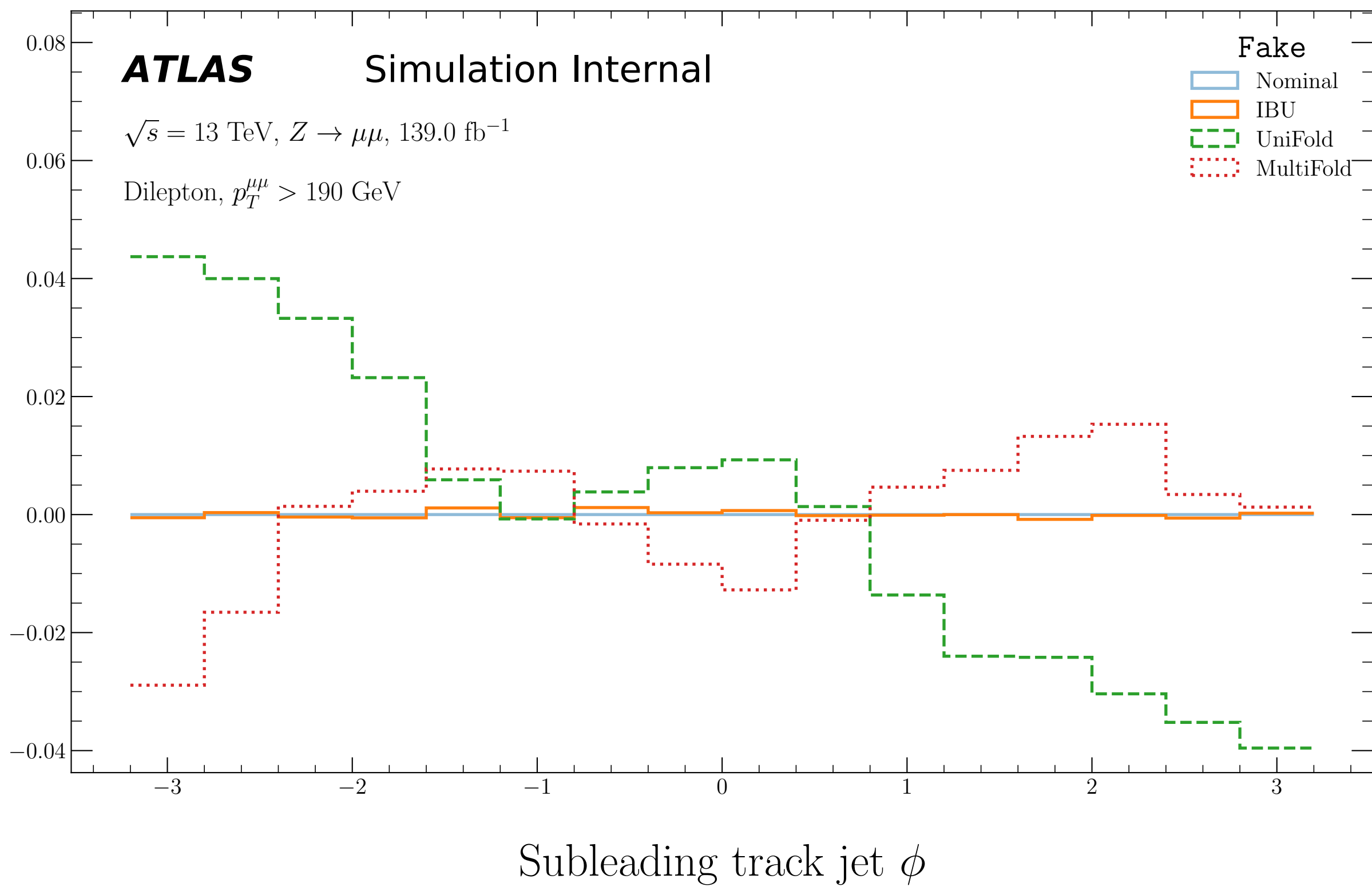
IBU

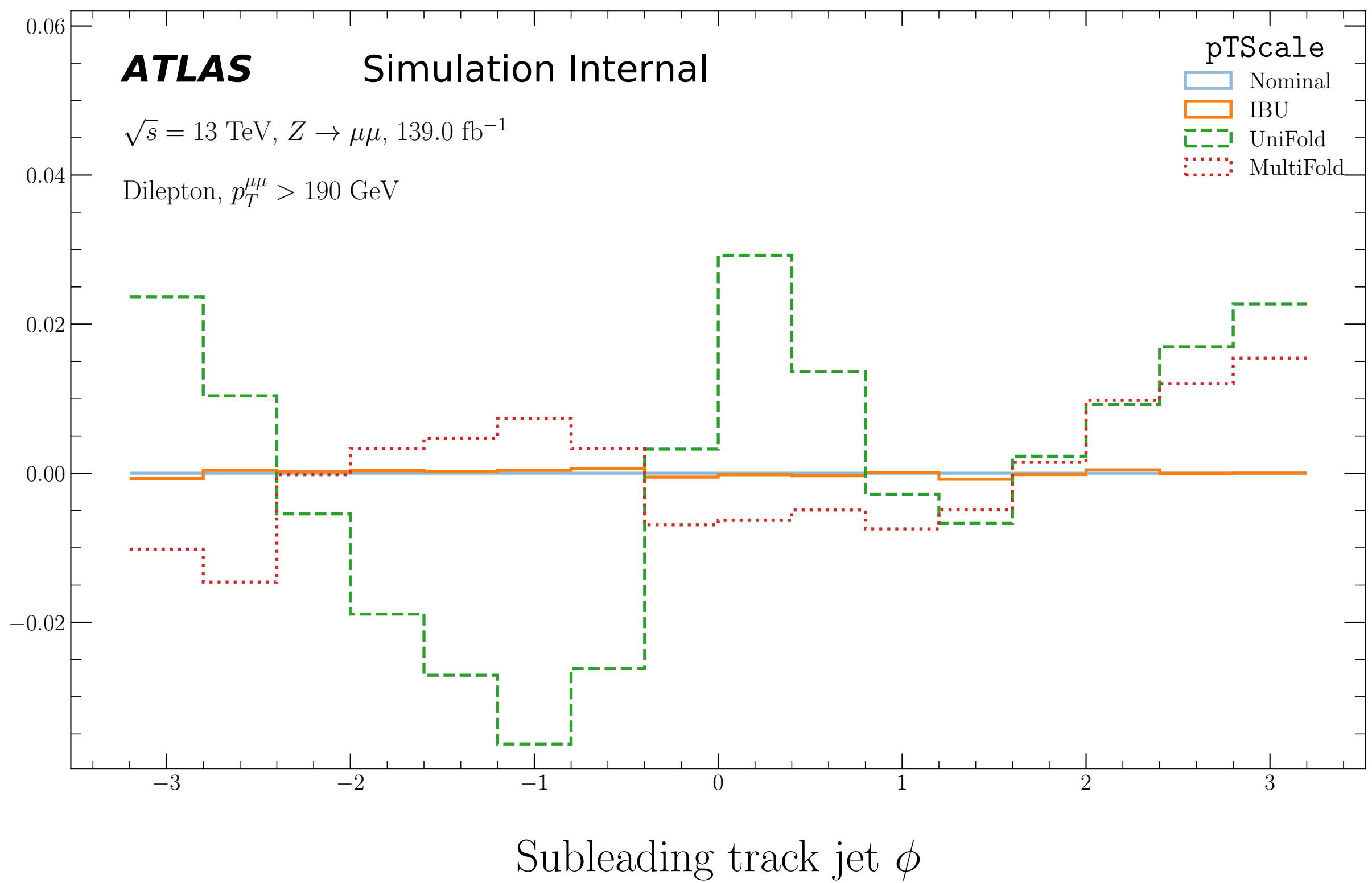
UniFold

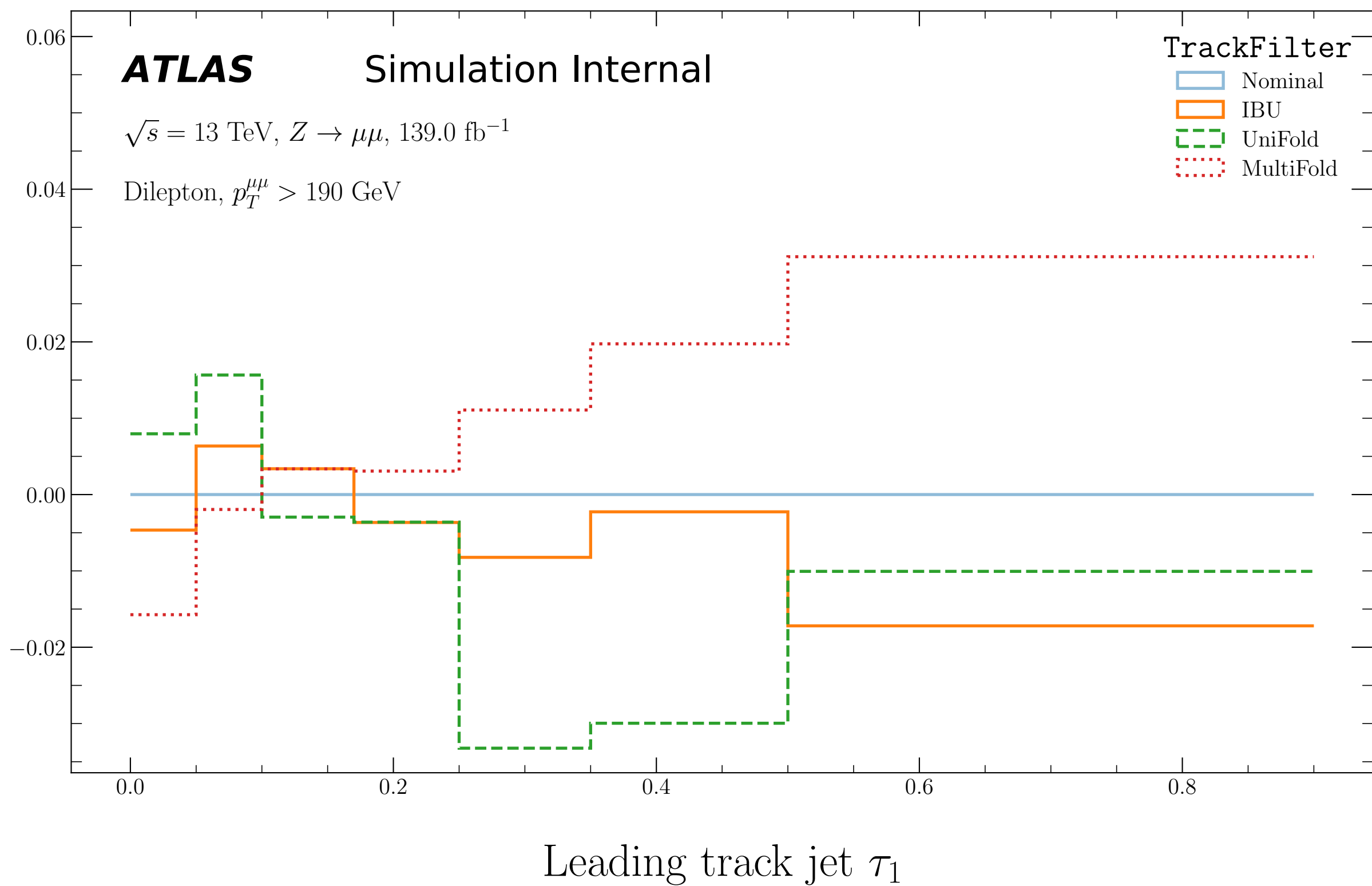
MultiFold

Subleading track jet ϕ









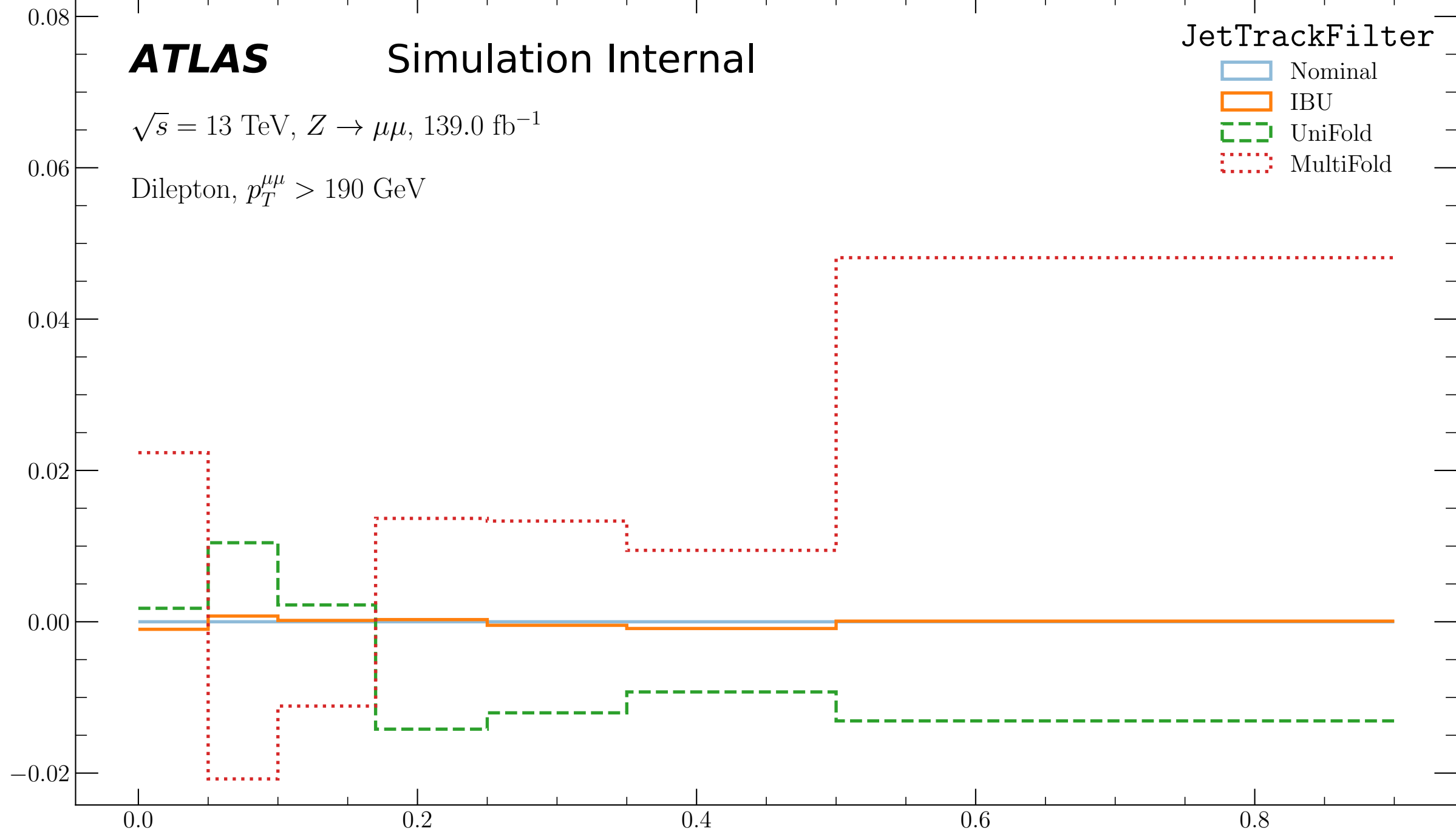
ATLAS

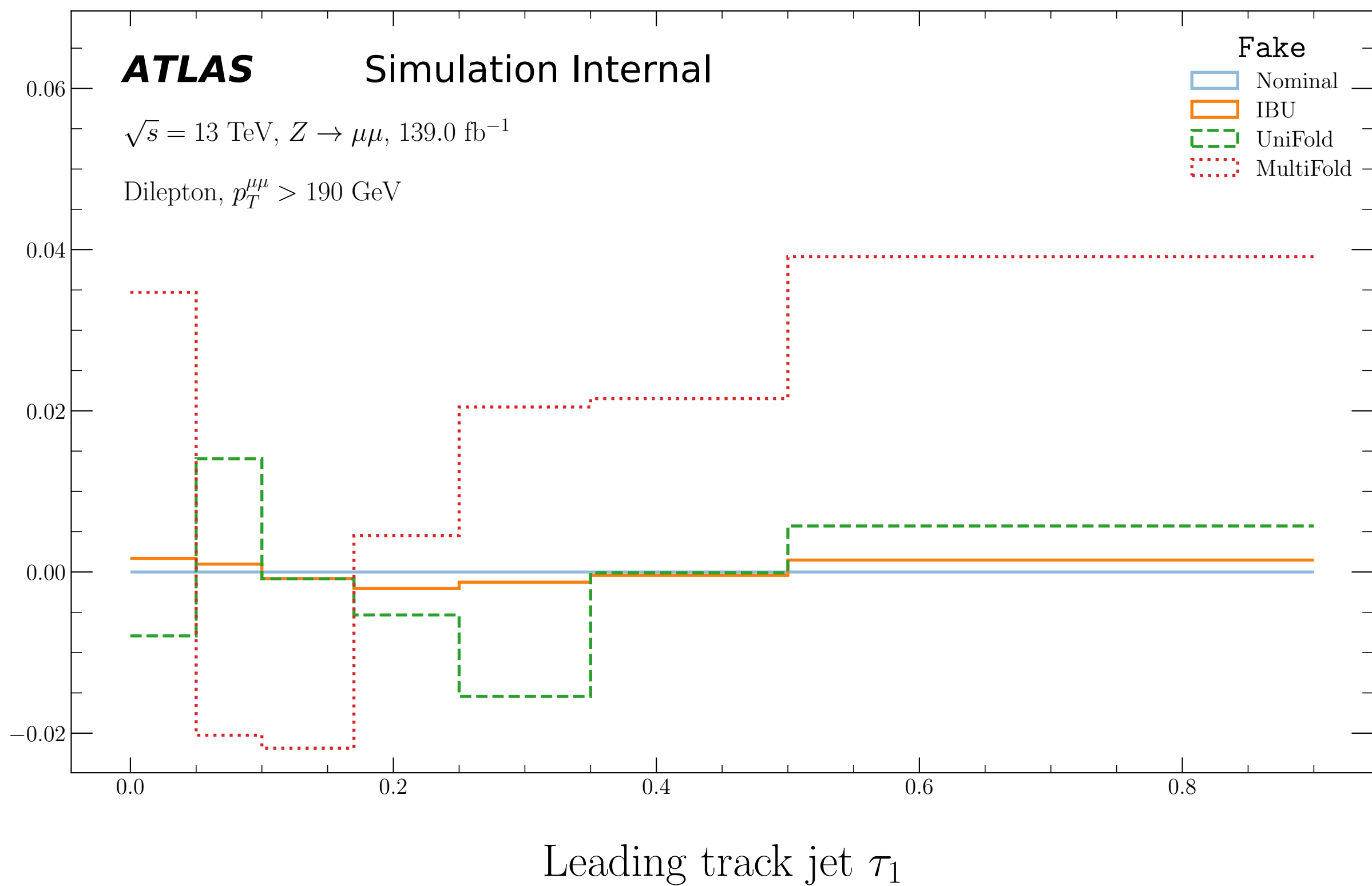
Simulation Internal

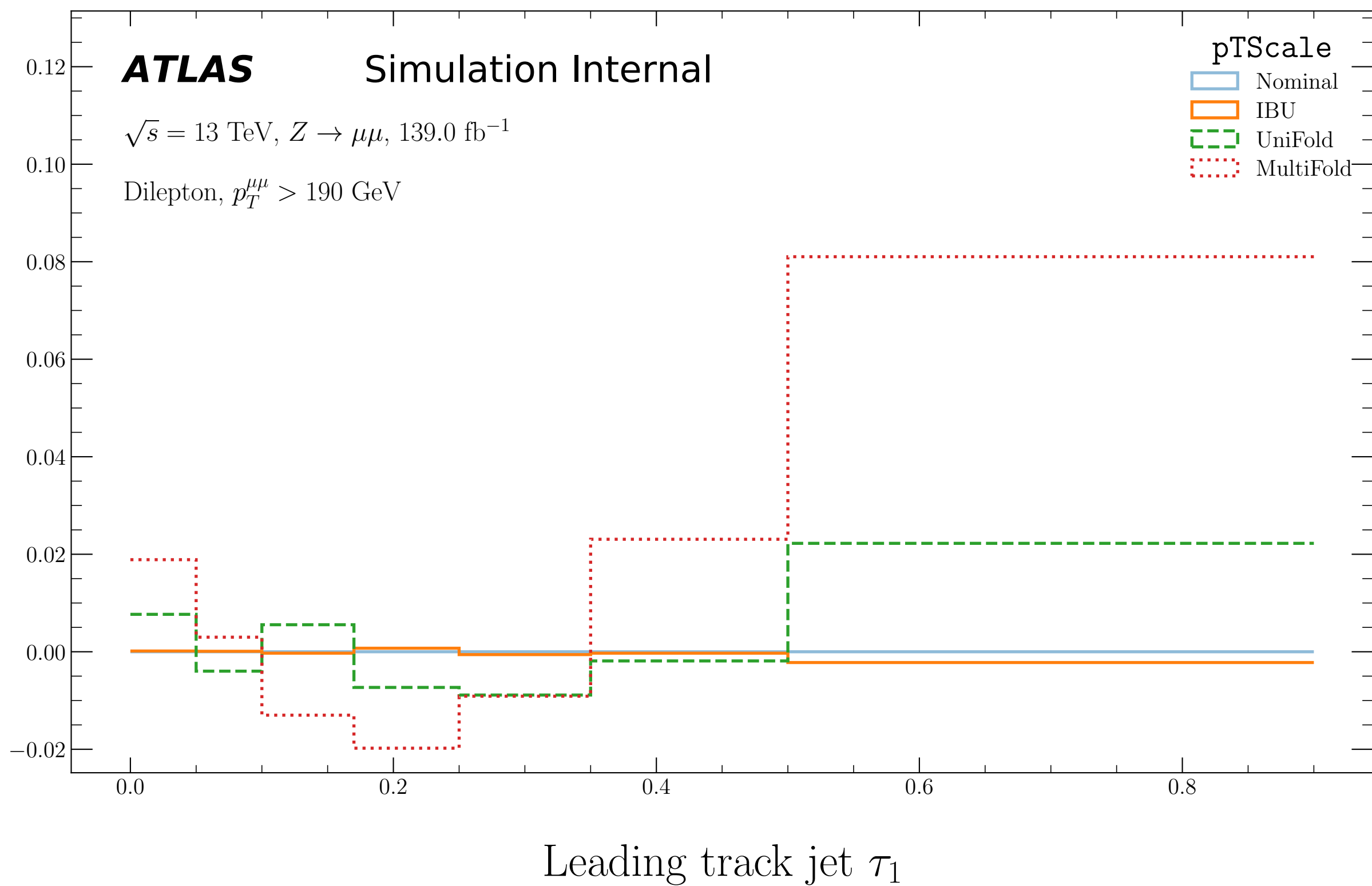
 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

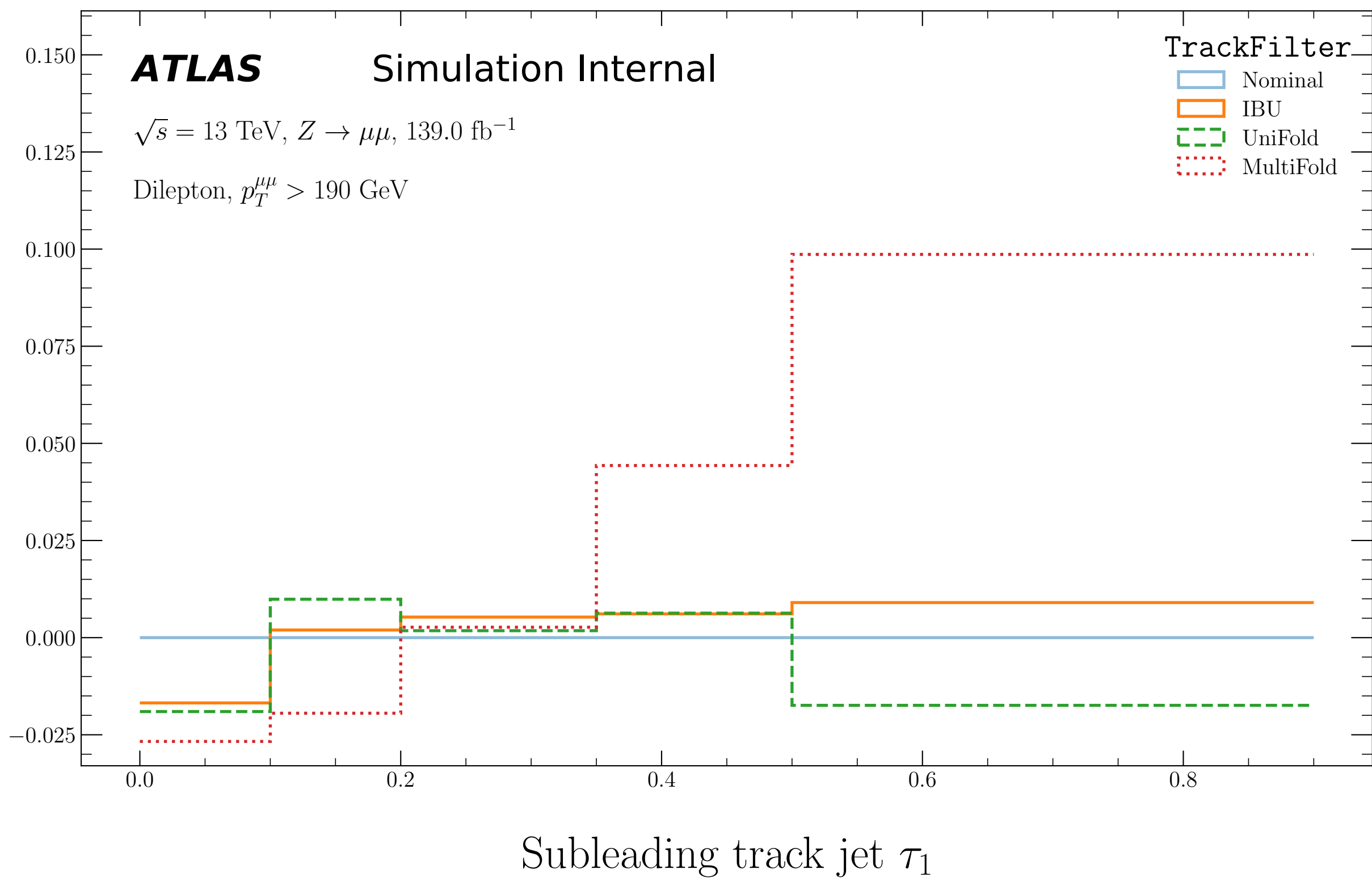
JetTrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet τ_1







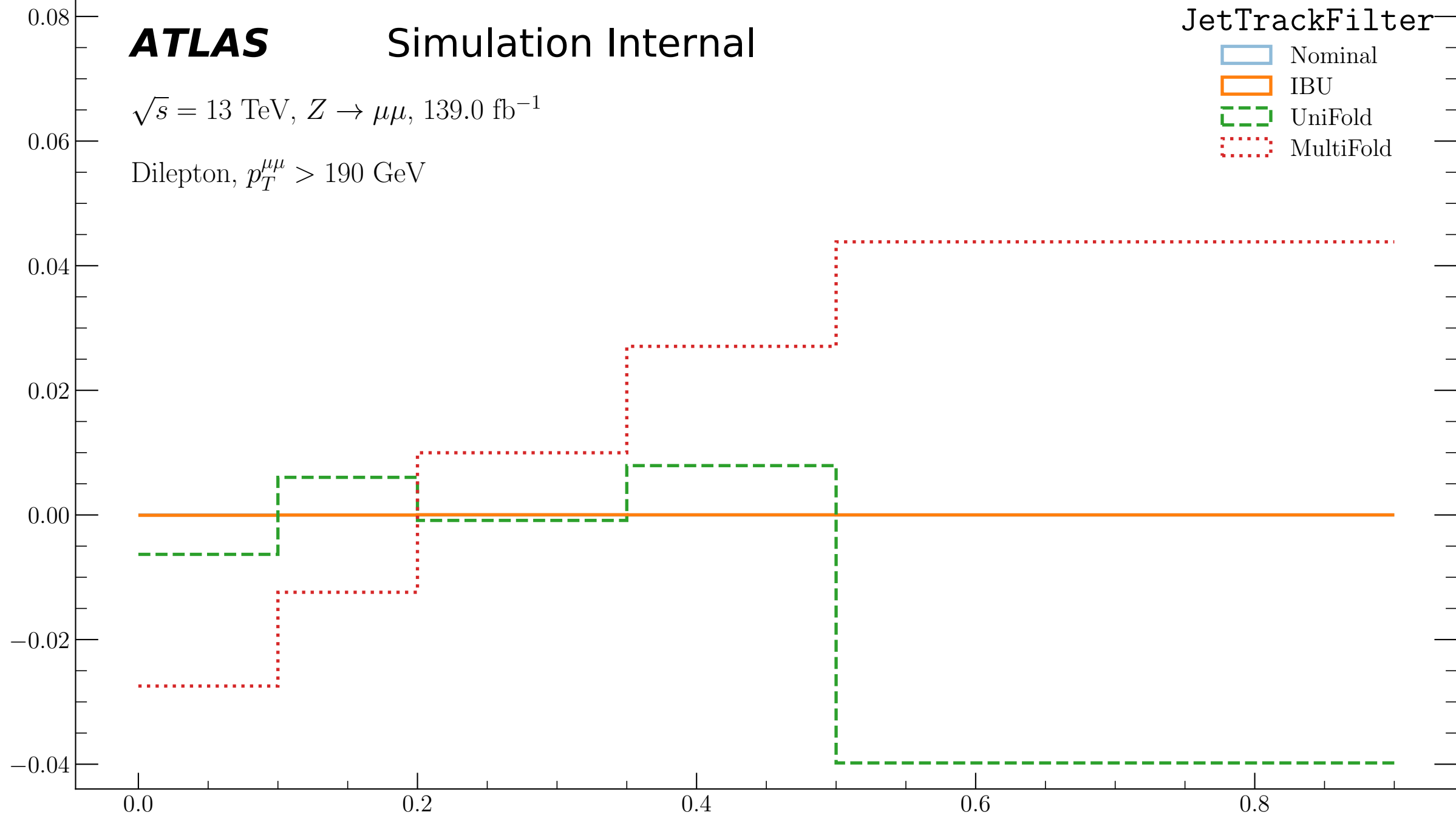
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet τ_1

Relative Systematic Effect (MultiFold)

ATLAS

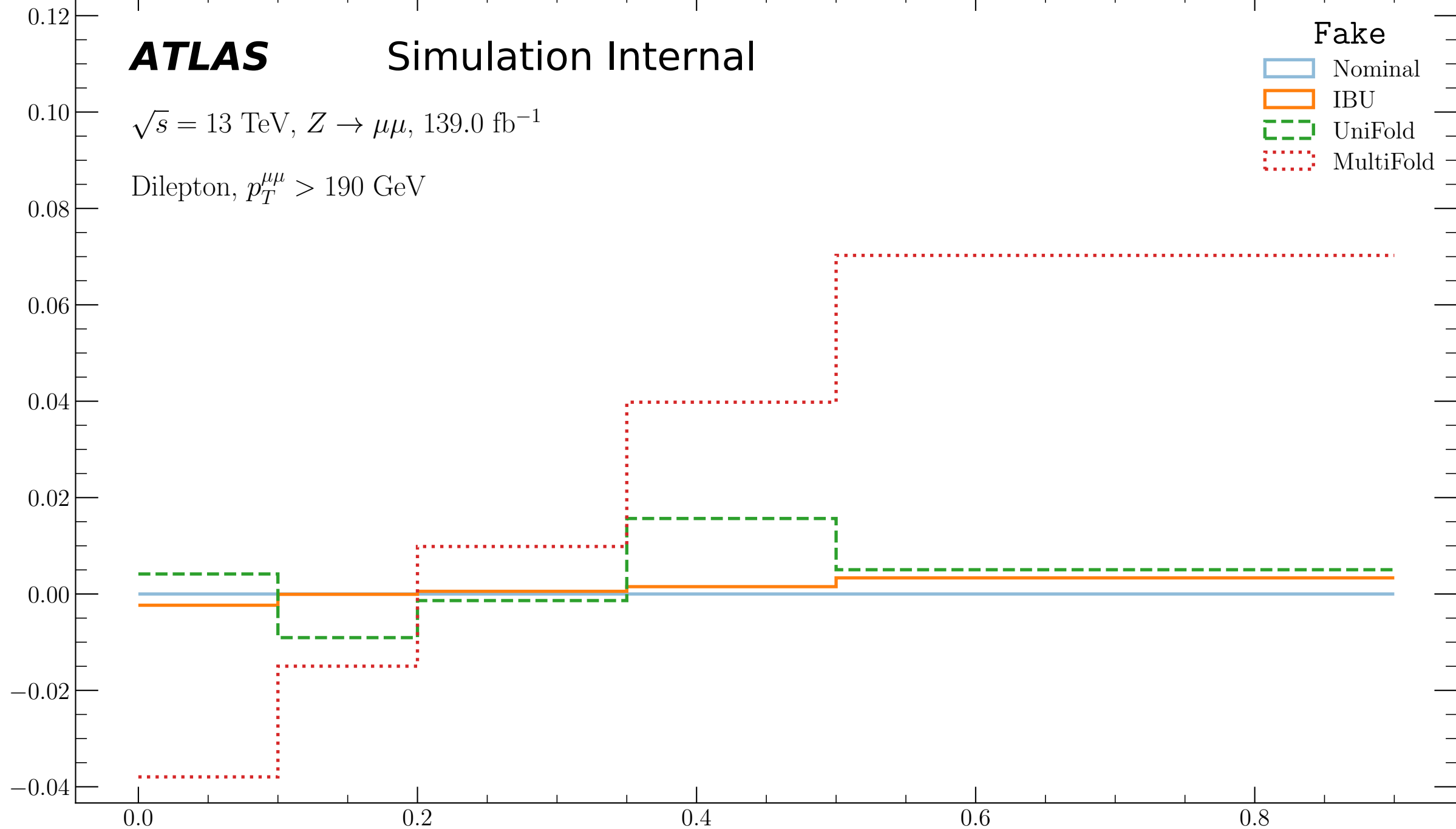
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet τ_1

Relative Systematic Effect (MultiFold)

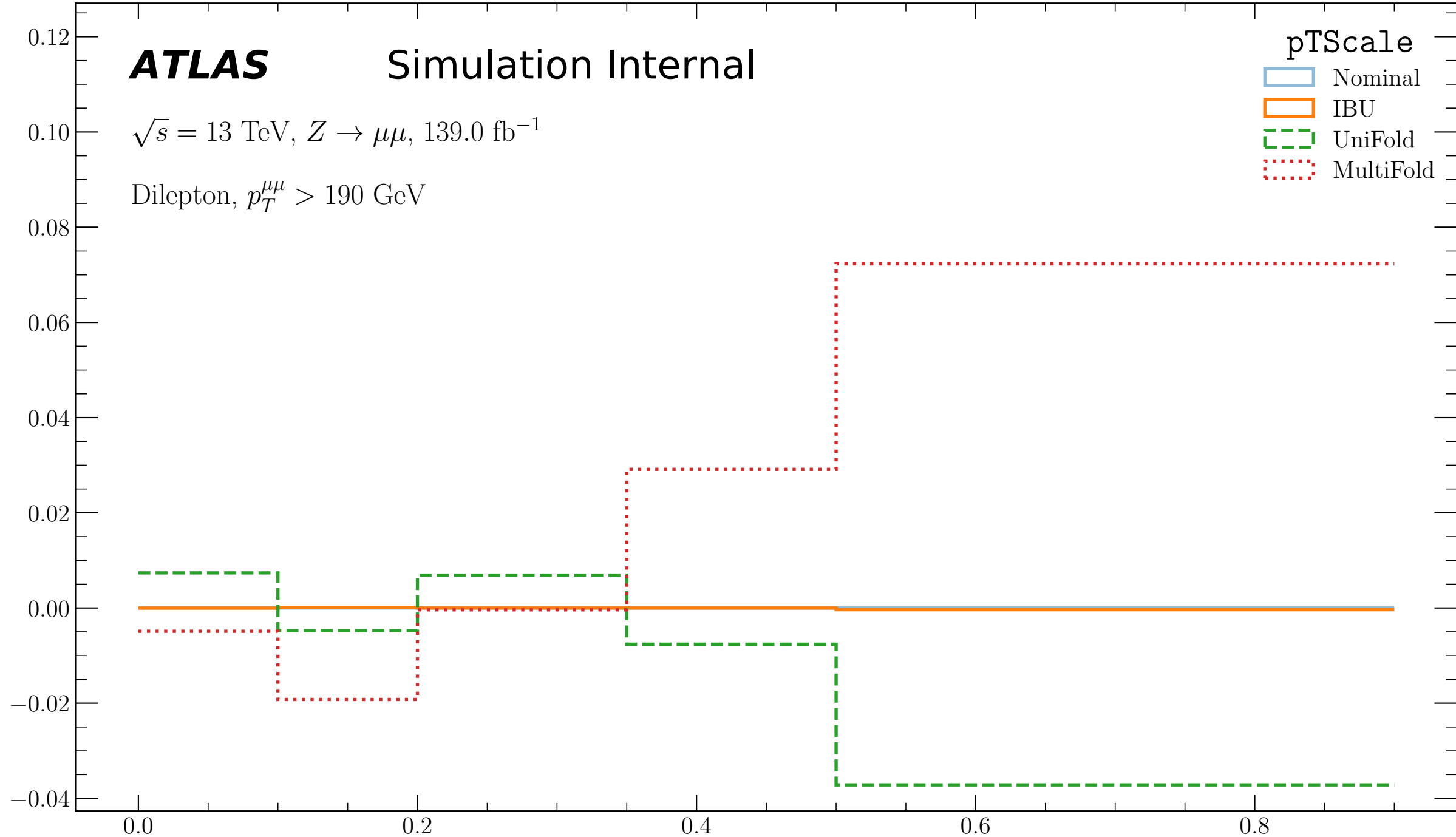
ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale
Nominal
IBU
UniFold
MultiFold



Subleading track jet τ_1

Relative Systematic Effect (MultiFold)

ATLAS

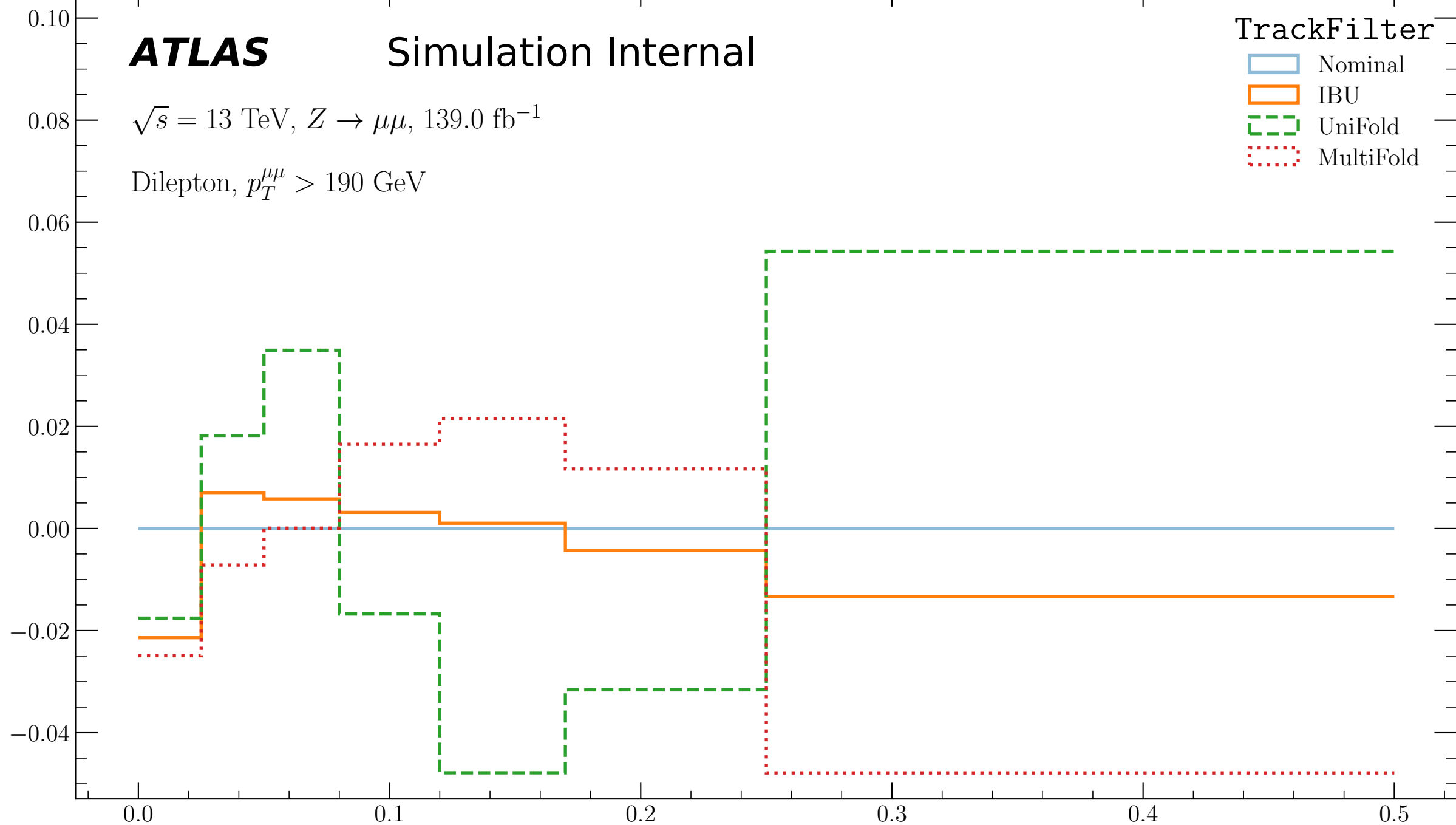
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet τ_2

Relative Systematic Effect (MultiFold)

ATLAS

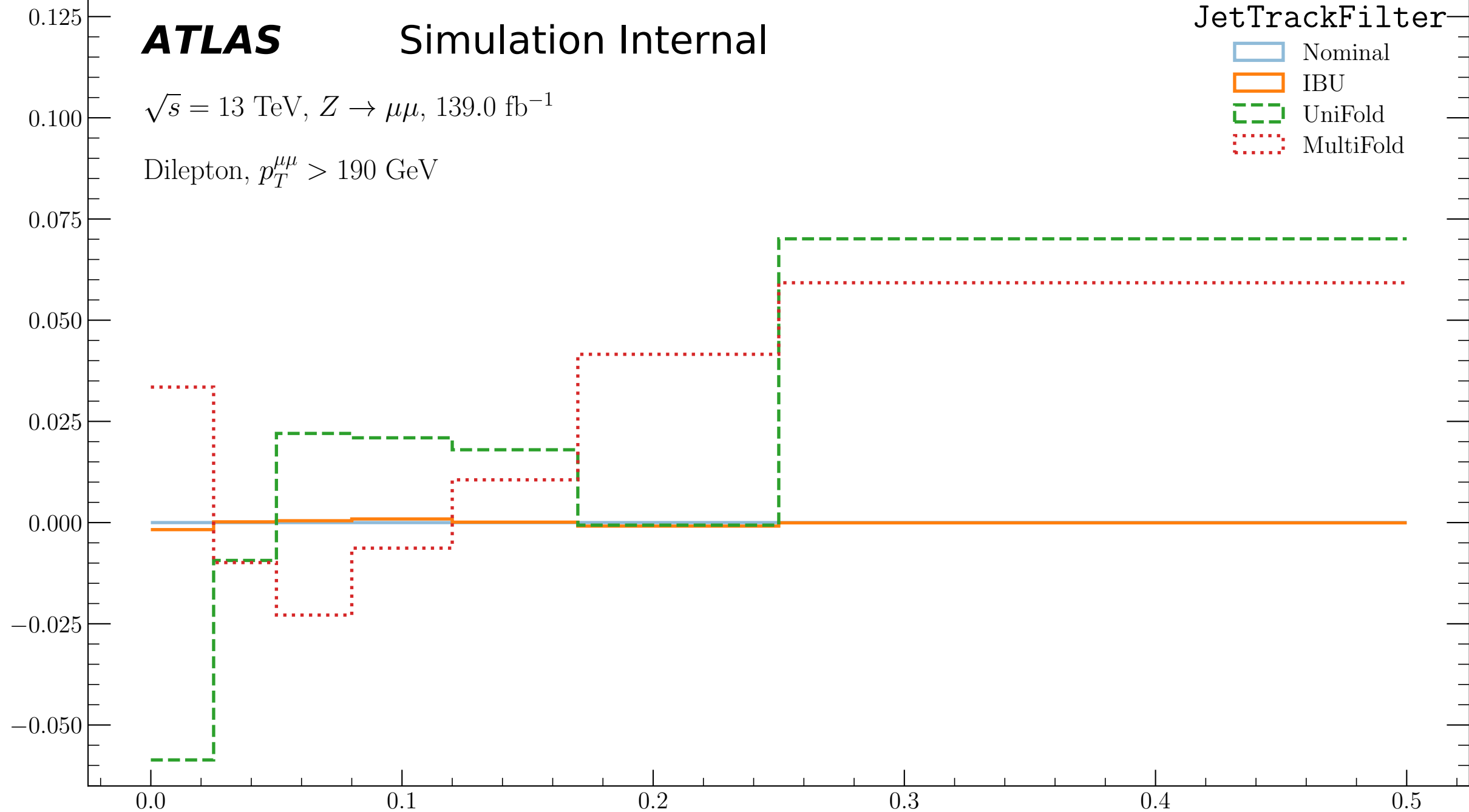
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet τ_2

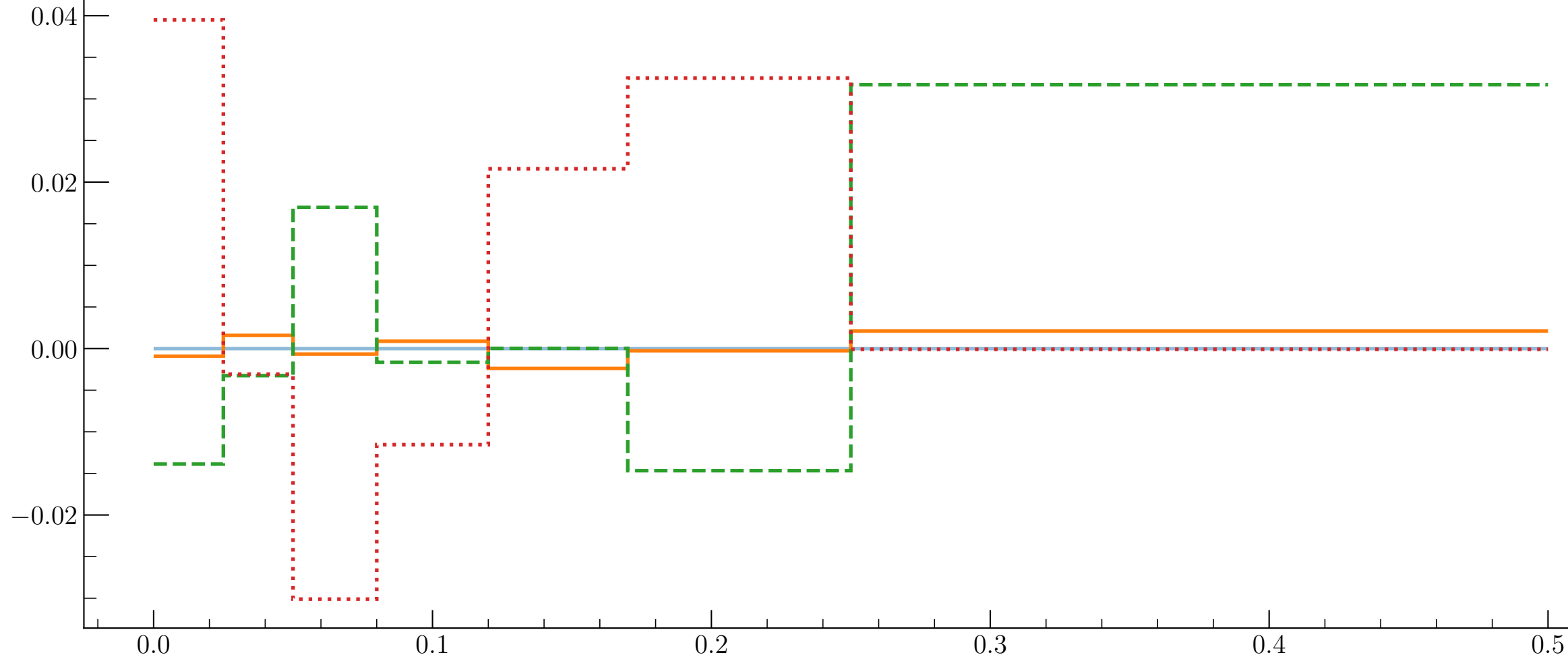
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet τ_2

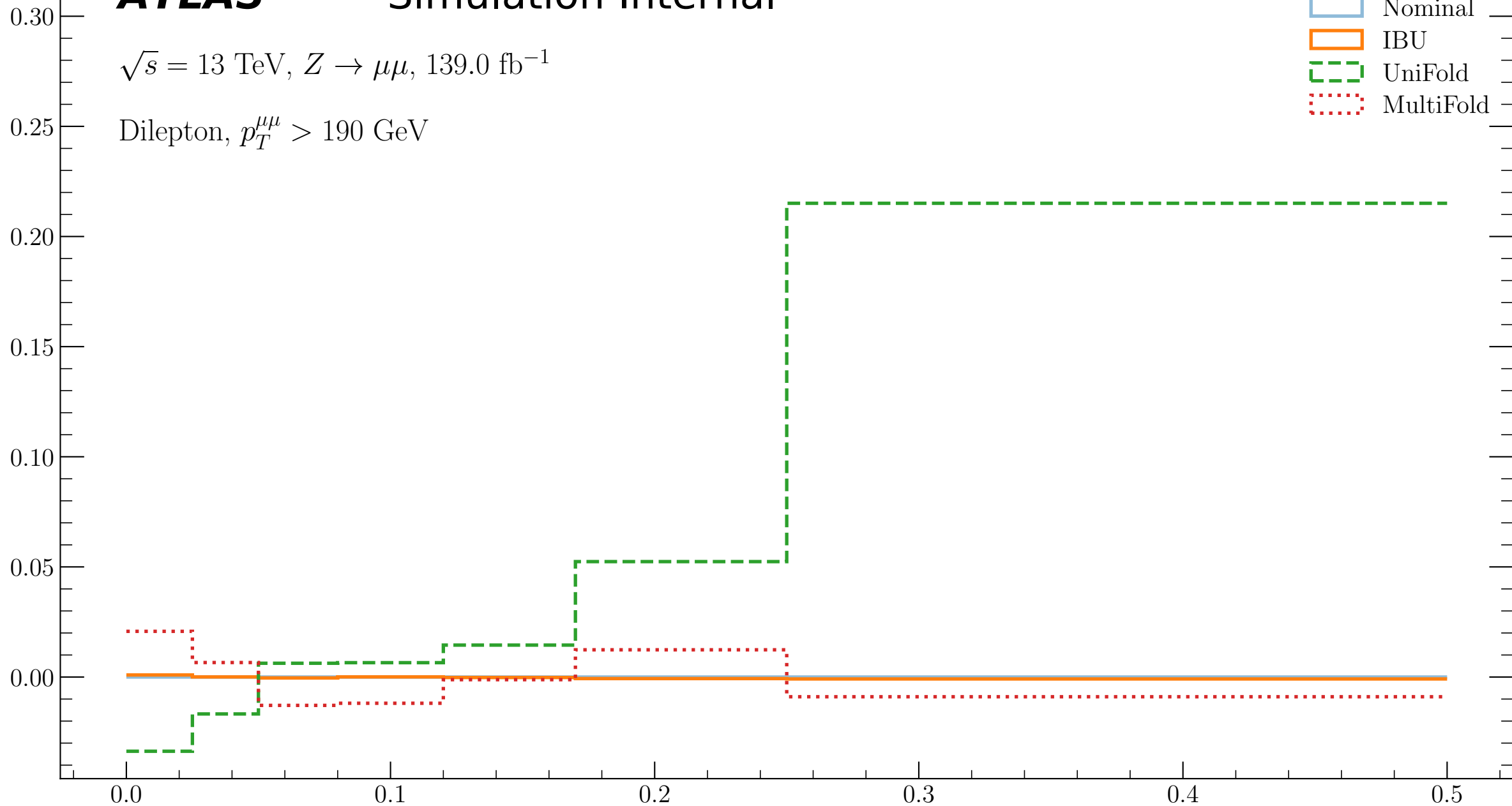
ATLAS

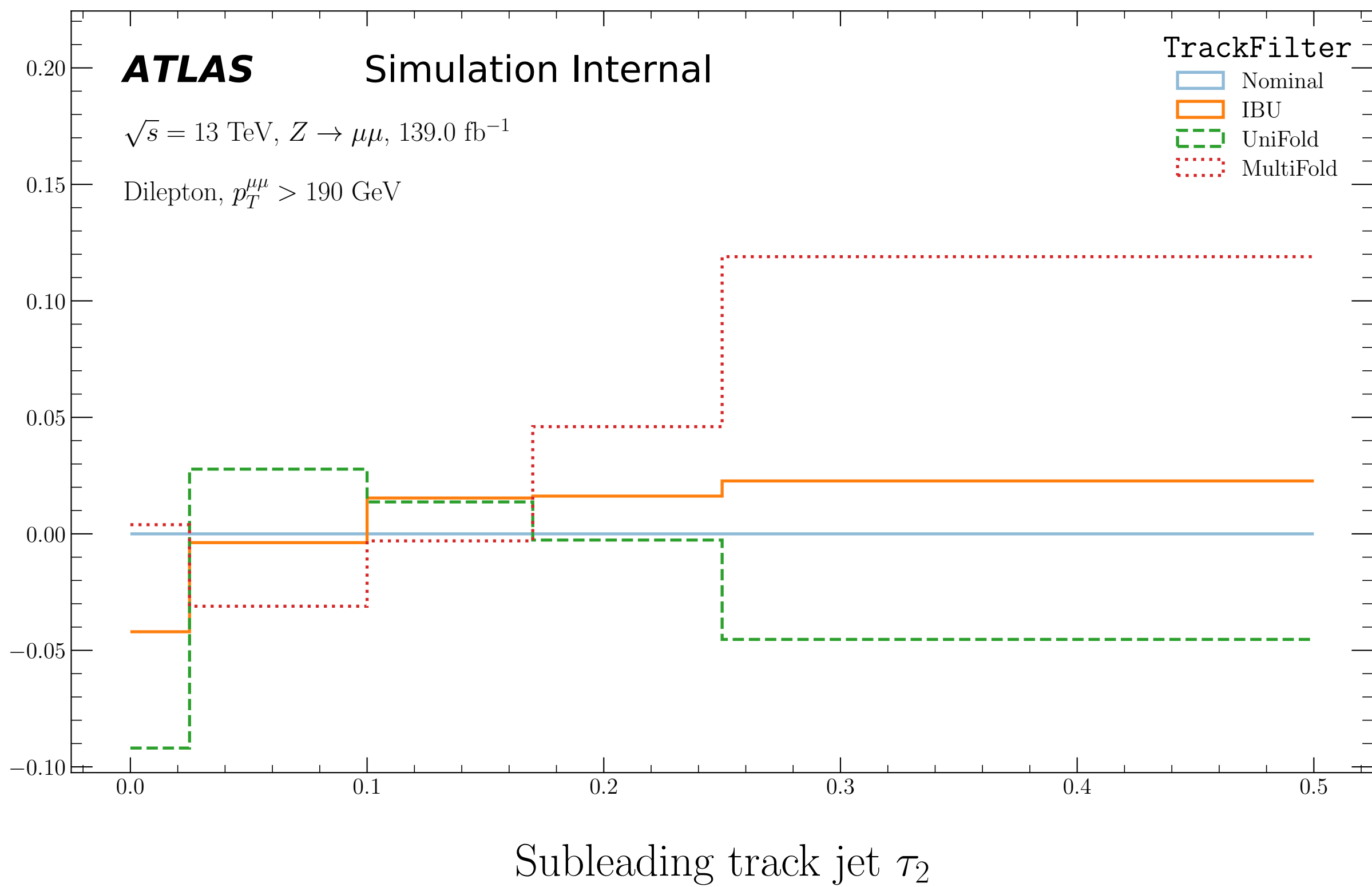
Simulation Internal

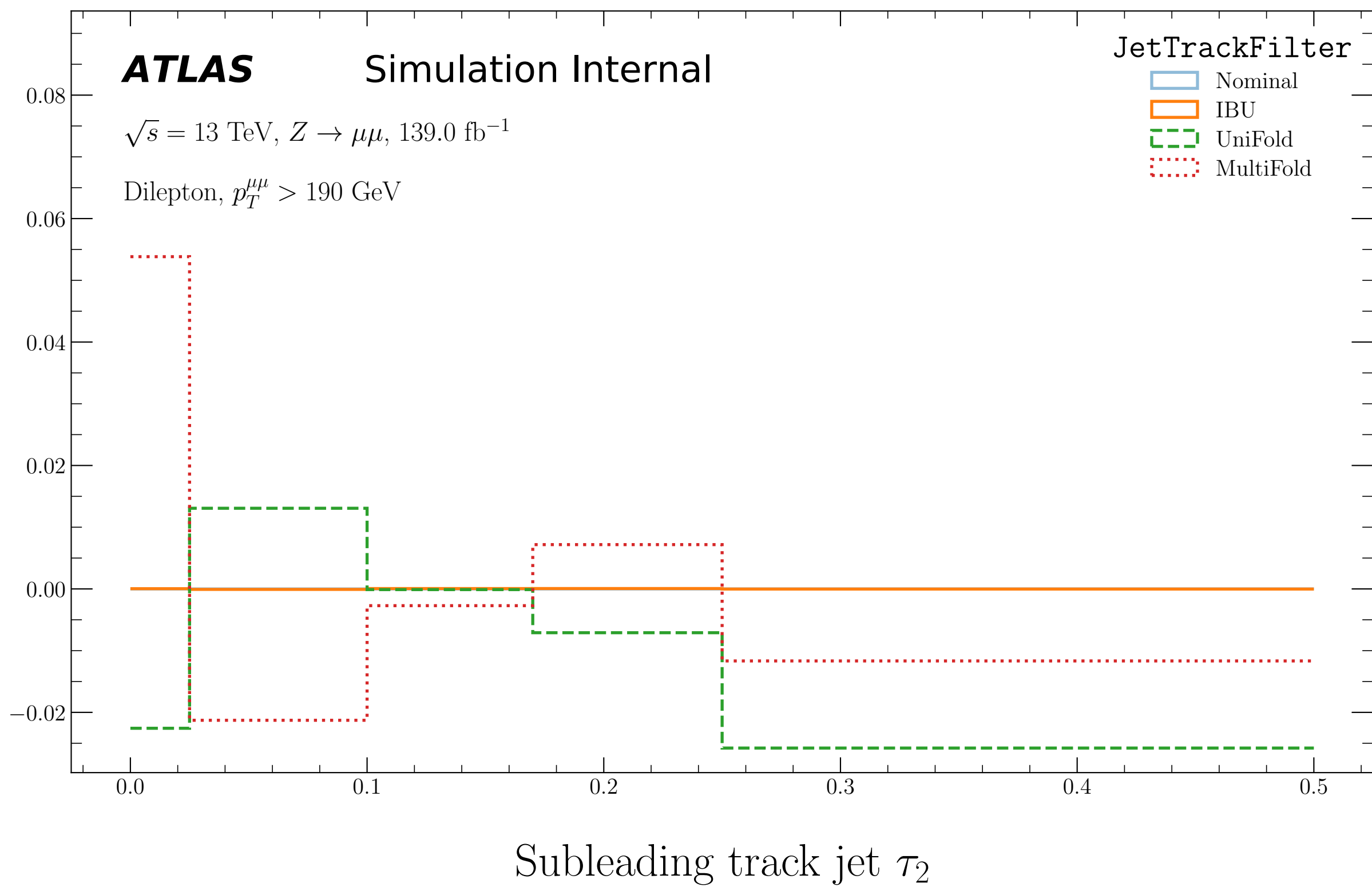
 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

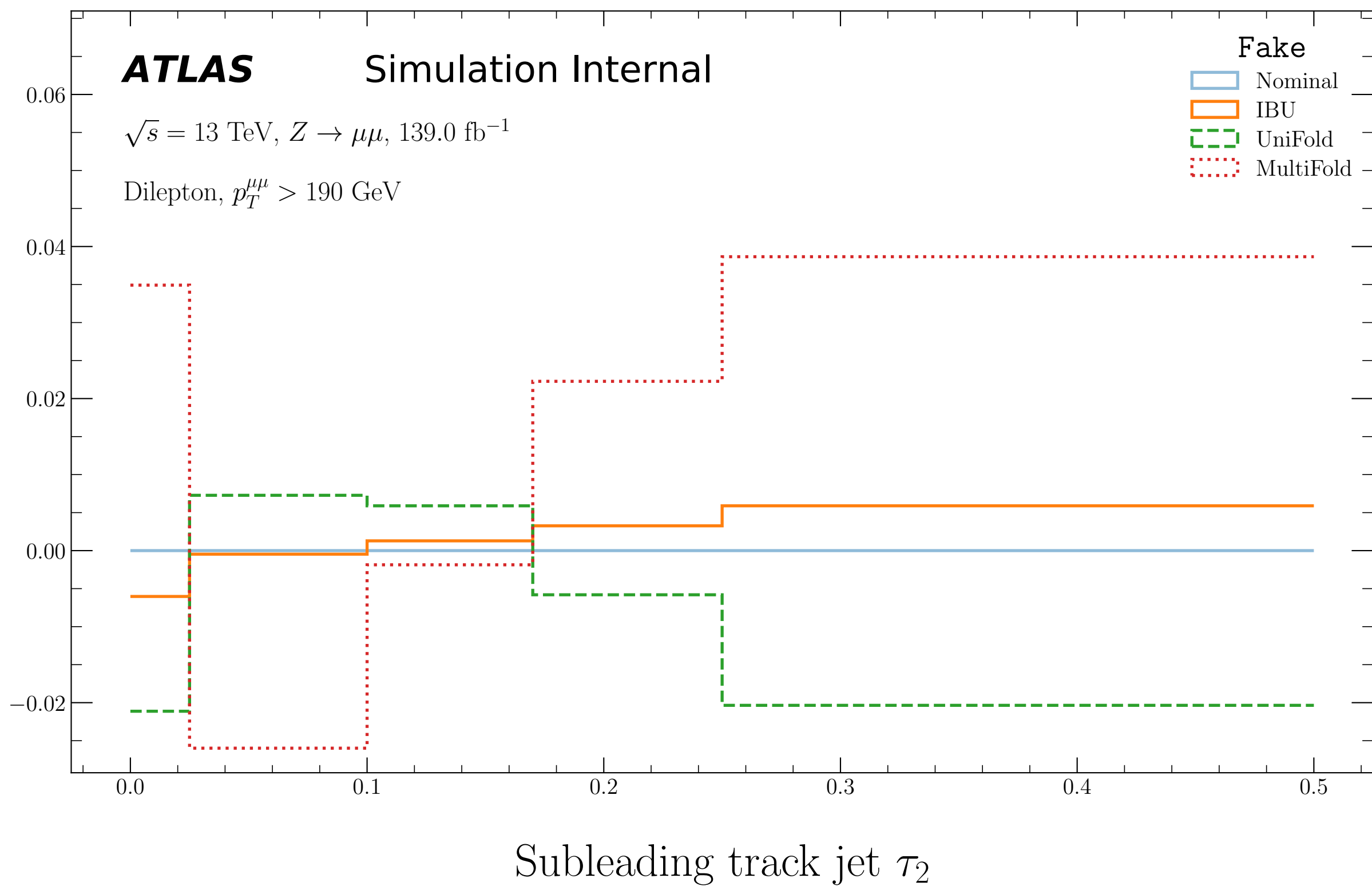
pTScale

- Nominal
- IBU
- UniFold
- MultiFold









Relative Systematic Effect (MultiFold)

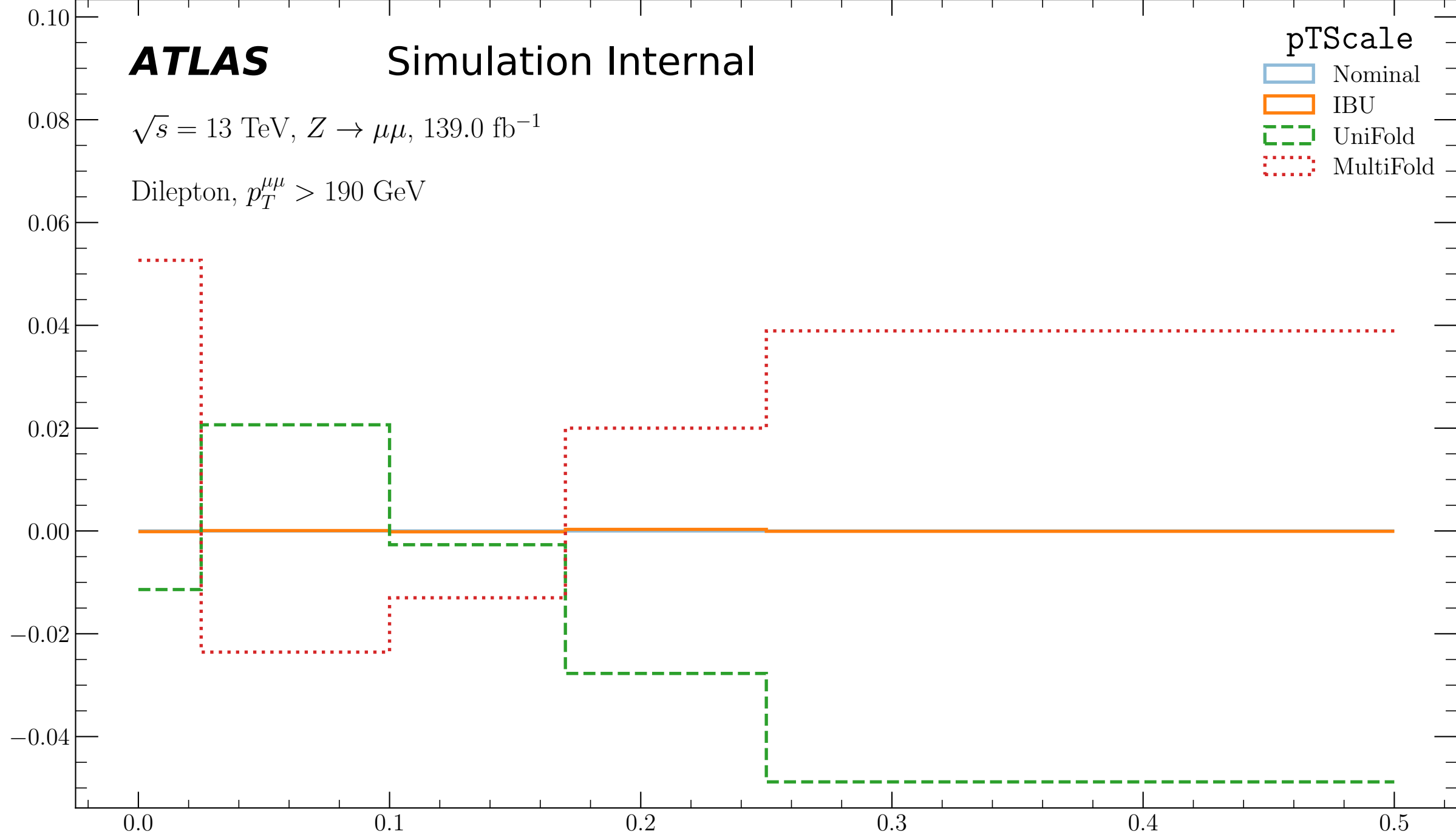
ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale
Nominal
IBU
UniFold
MultiFold



Subleading track jet τ_2

Relative Systematic Effect (MultiFold)

ATLAS

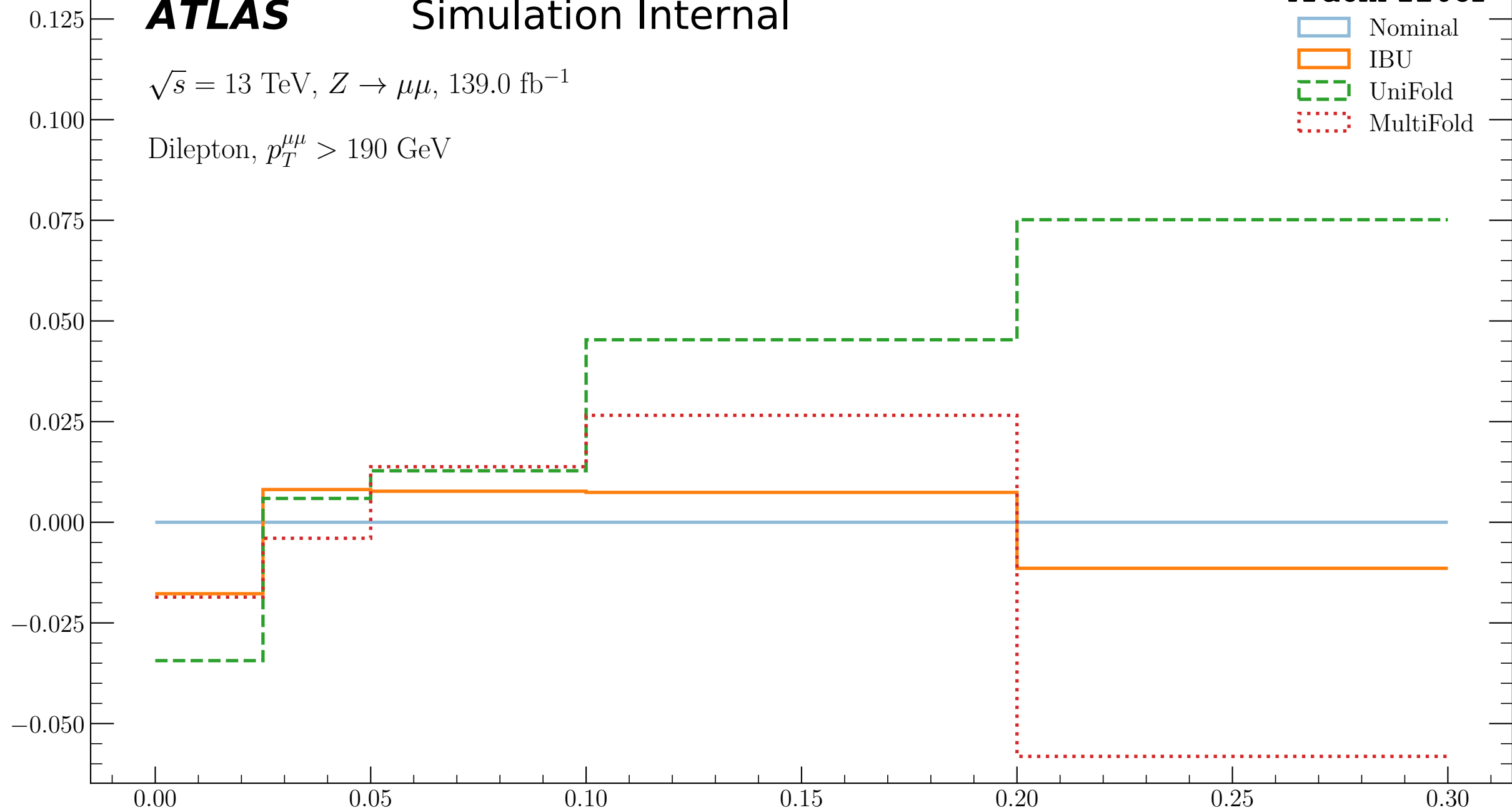
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

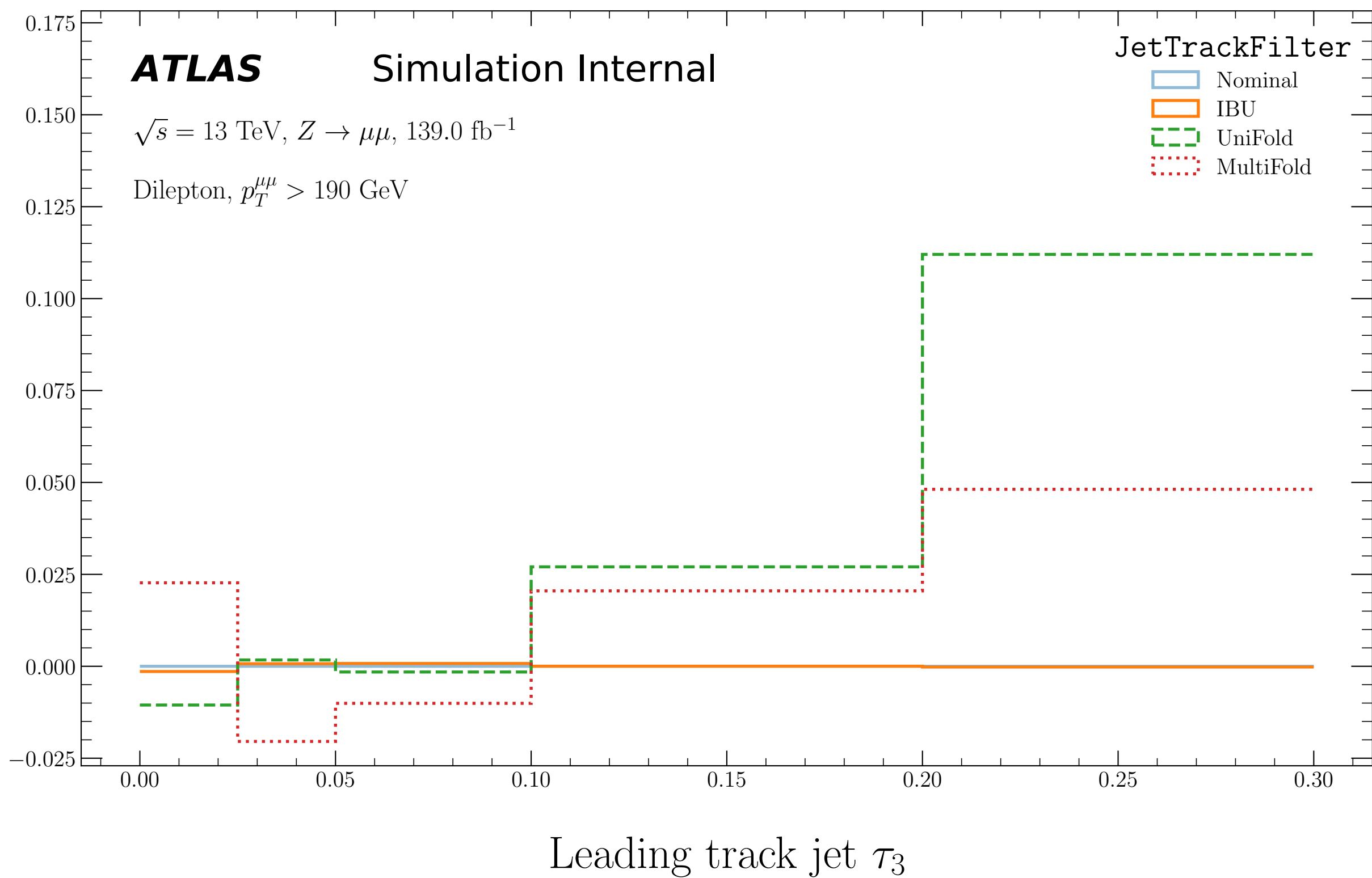
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

- Nominal
- IBU
- UniFold
- MultiFold



Leading track jet τ_3



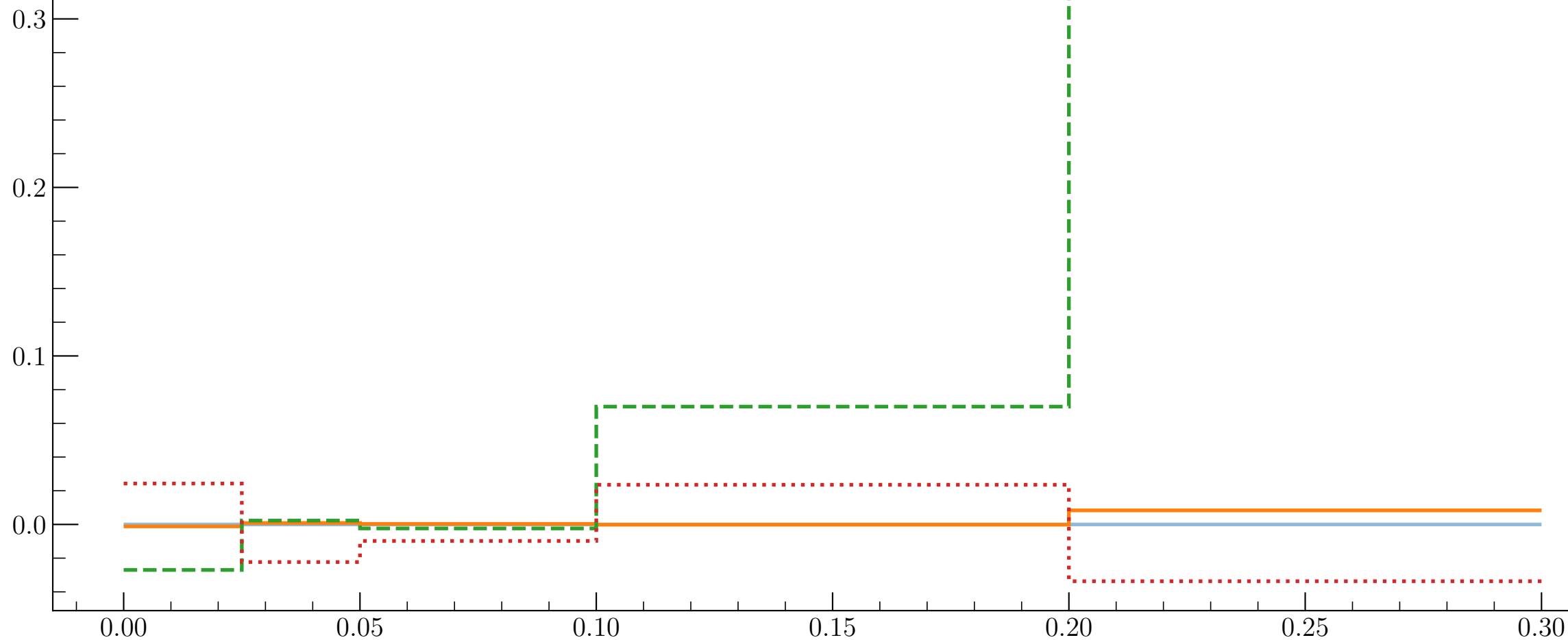
ATLAS

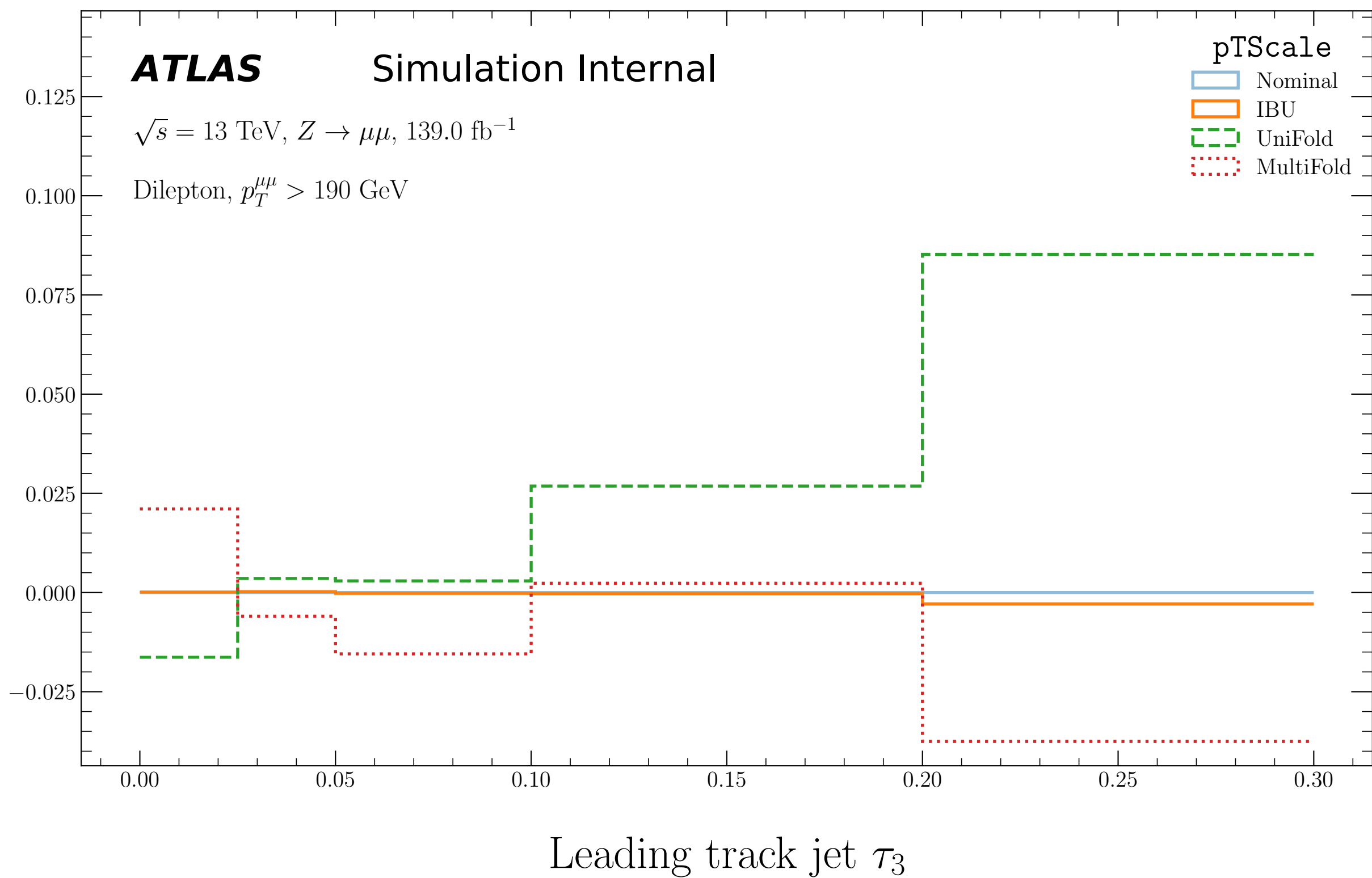
Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet τ_3



ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

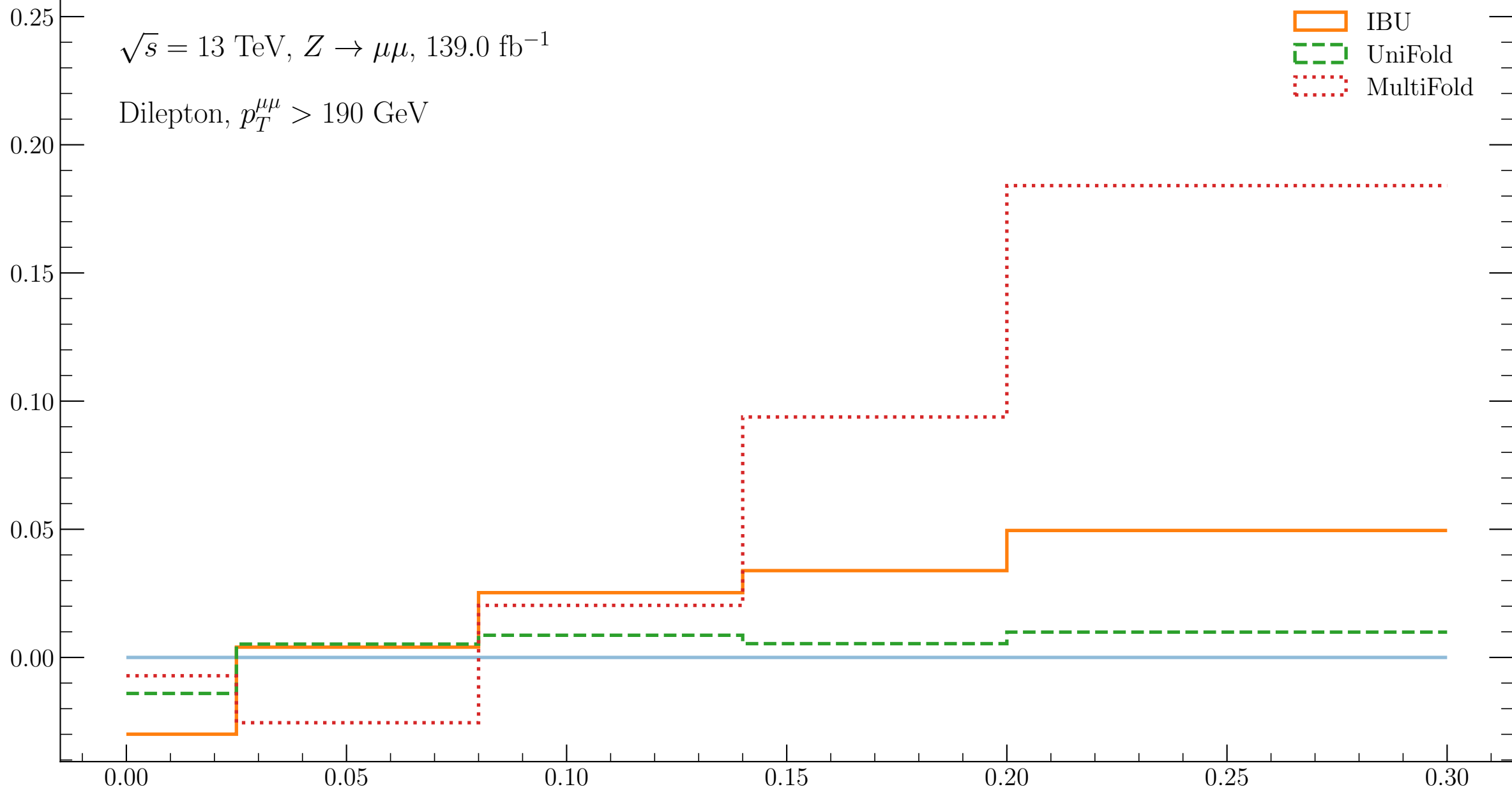
TrackFilter

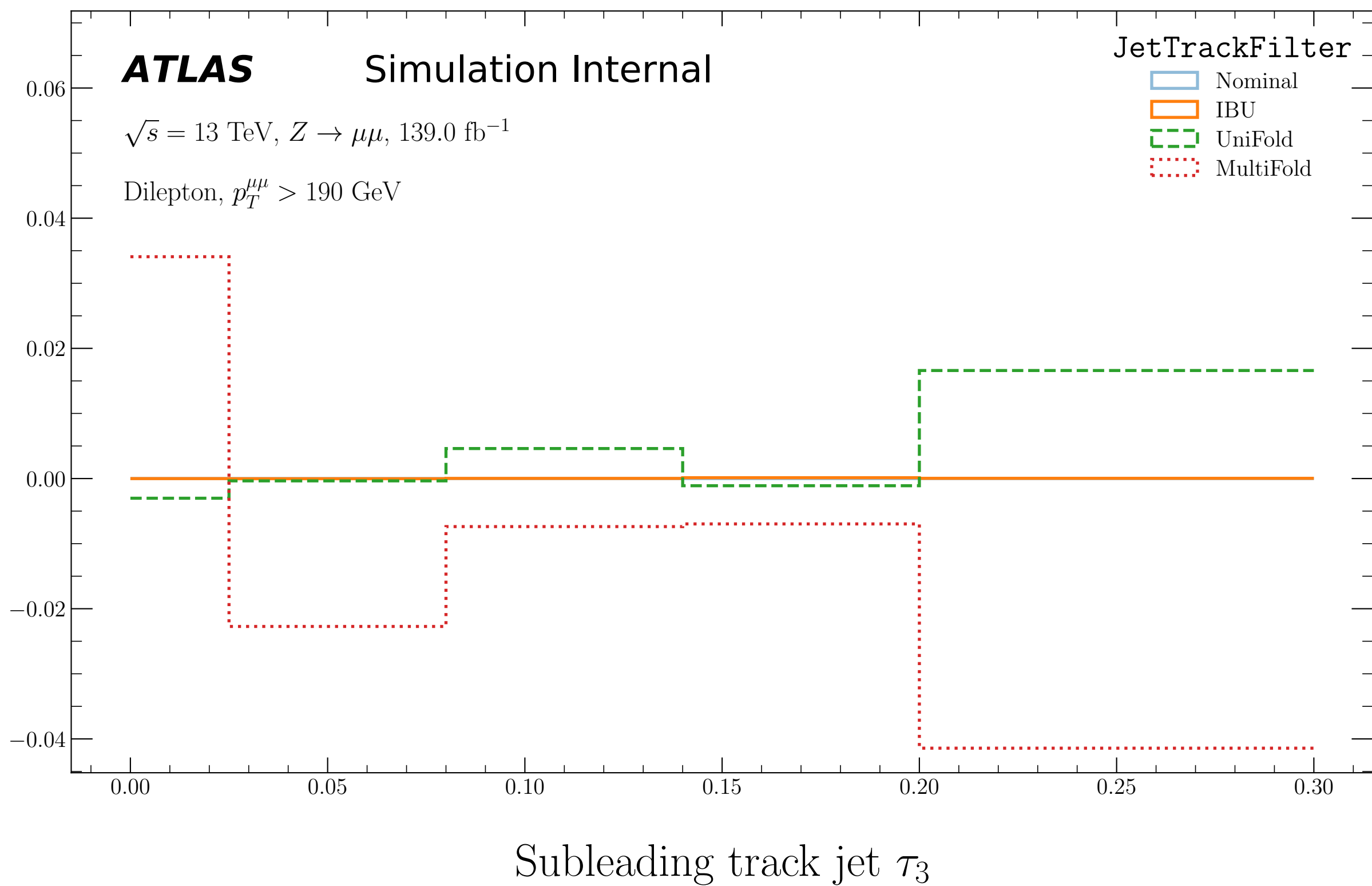
Nominal

IBU

UniFold

MultiFold

Subleading track jet τ_3



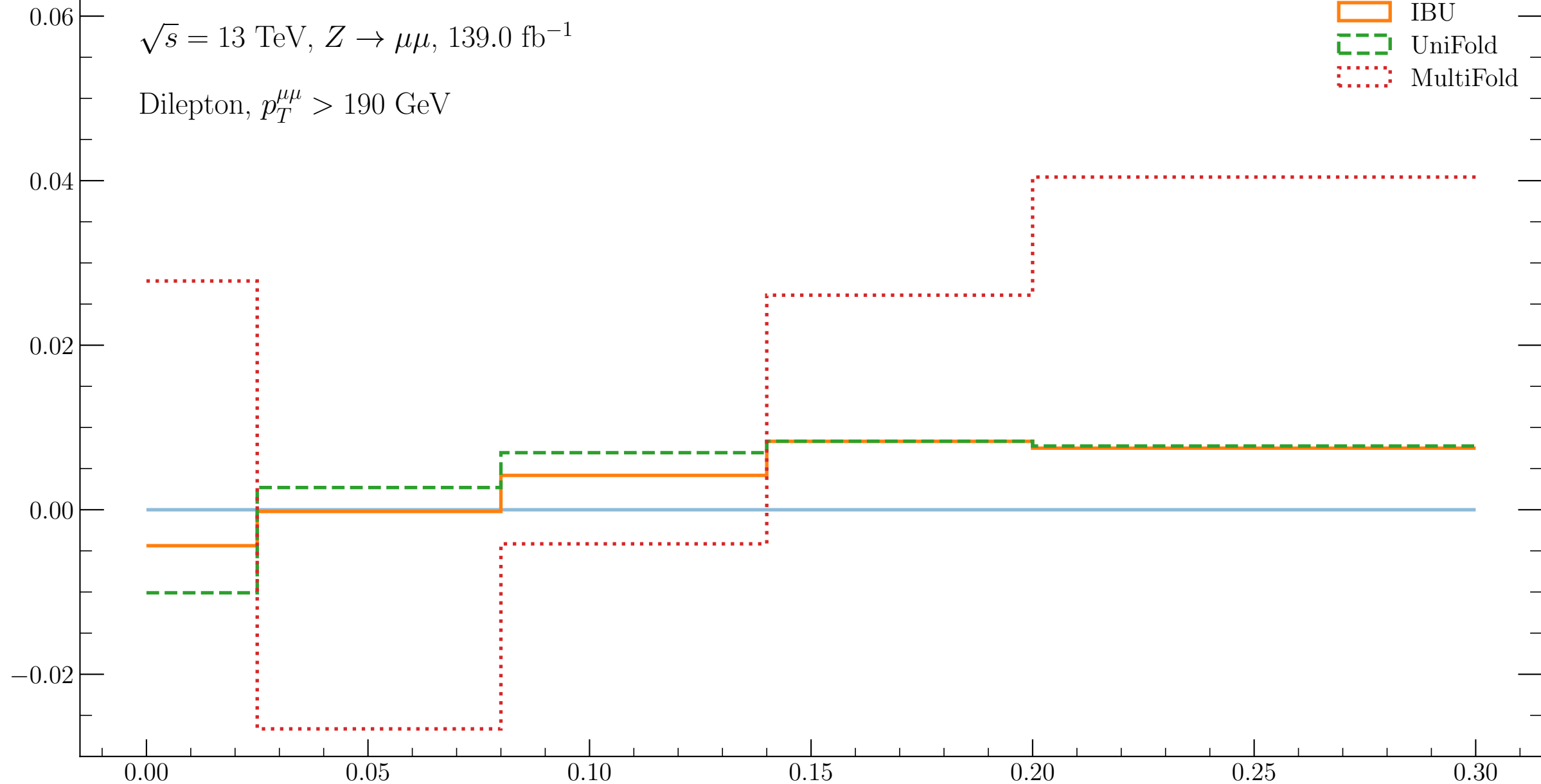
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet τ_3

Relative Systematic Effect (MultiFold)

ATLAS

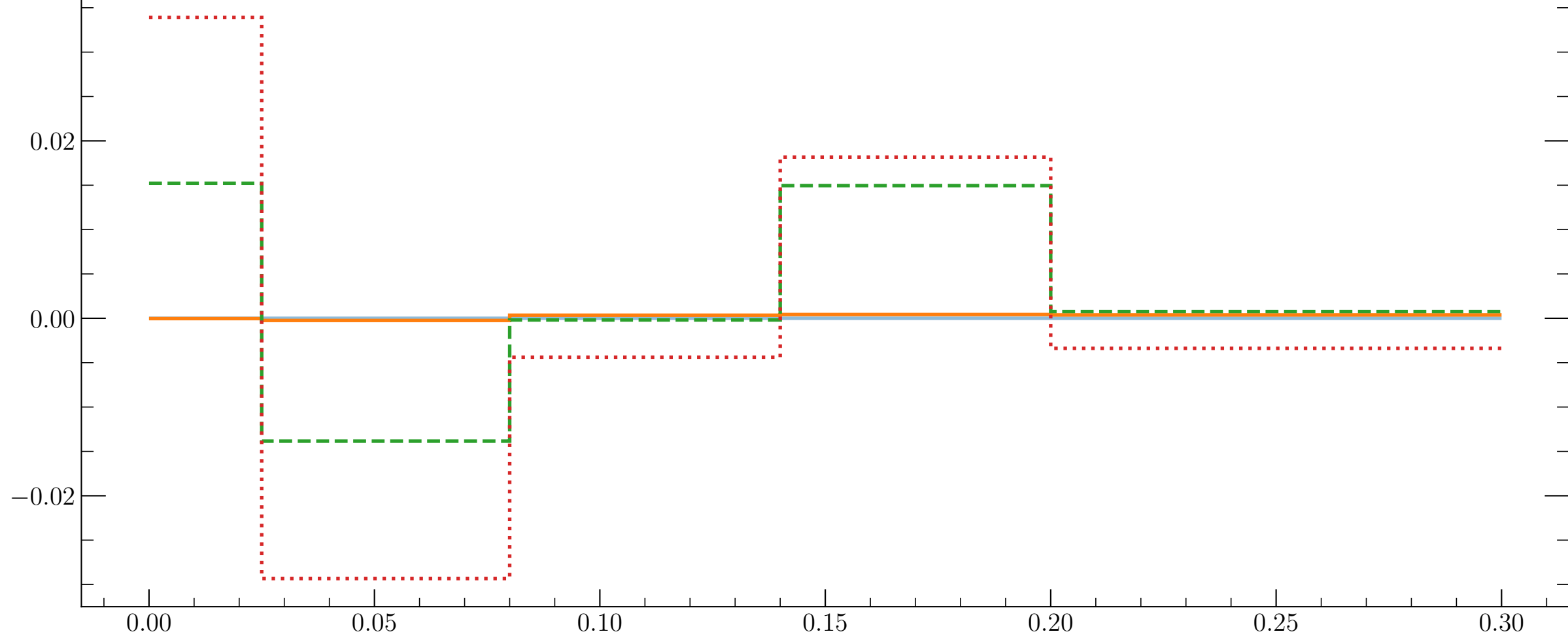
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

- Nominal
- IBU
- UniFold
- MultiFold



Subleading track jet τ_3

Relative Systematic Effect (MultiFold)

ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}$, $Z \rightarrow \mu\mu$, 139.0 fb^{-1}

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

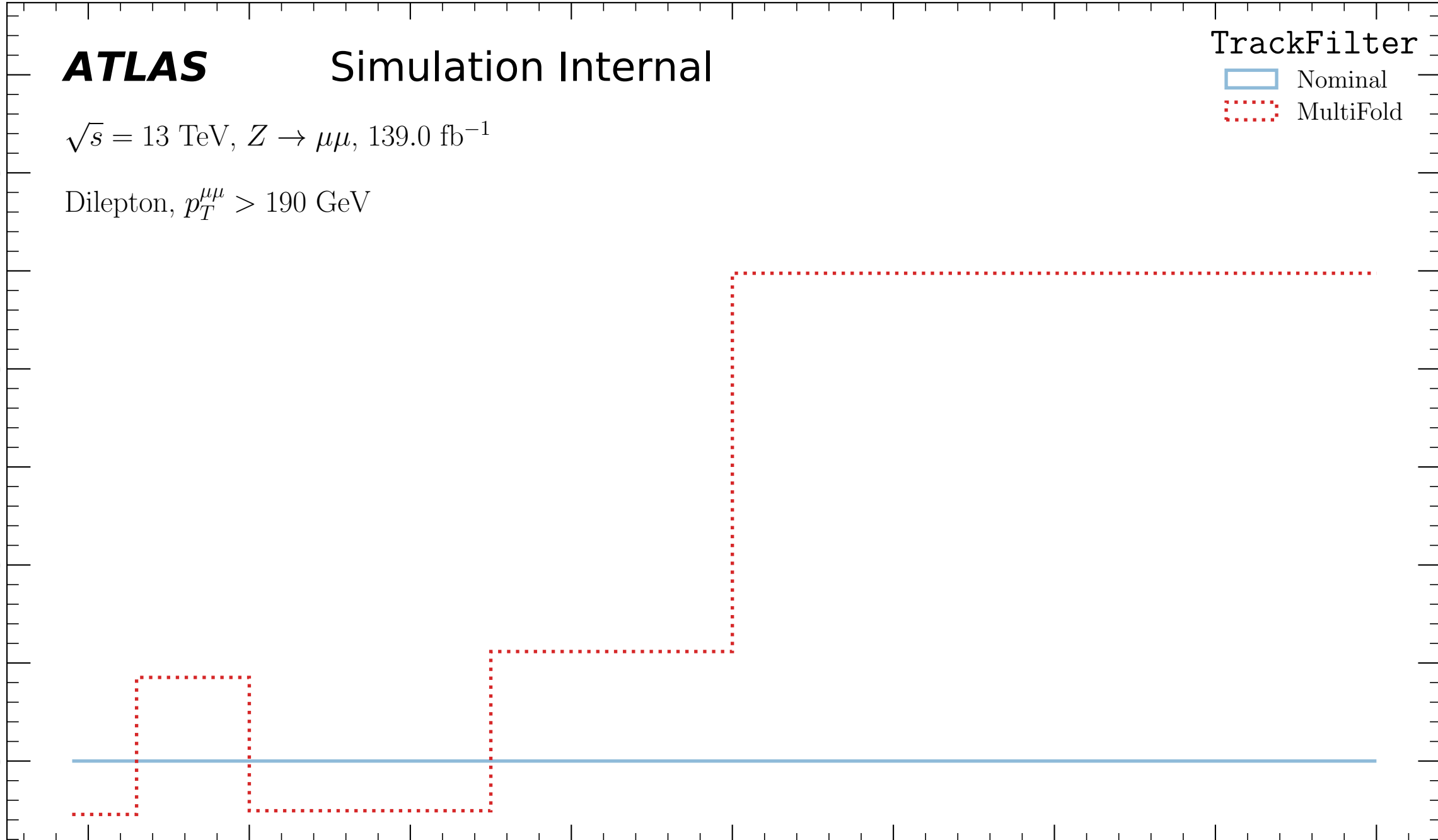
TrackFilter

Nominal
MultiFold

0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000

200 300 400 500 600 700 800 900 1000

$p_T^{\mu\mu} [\text{GeV}]$

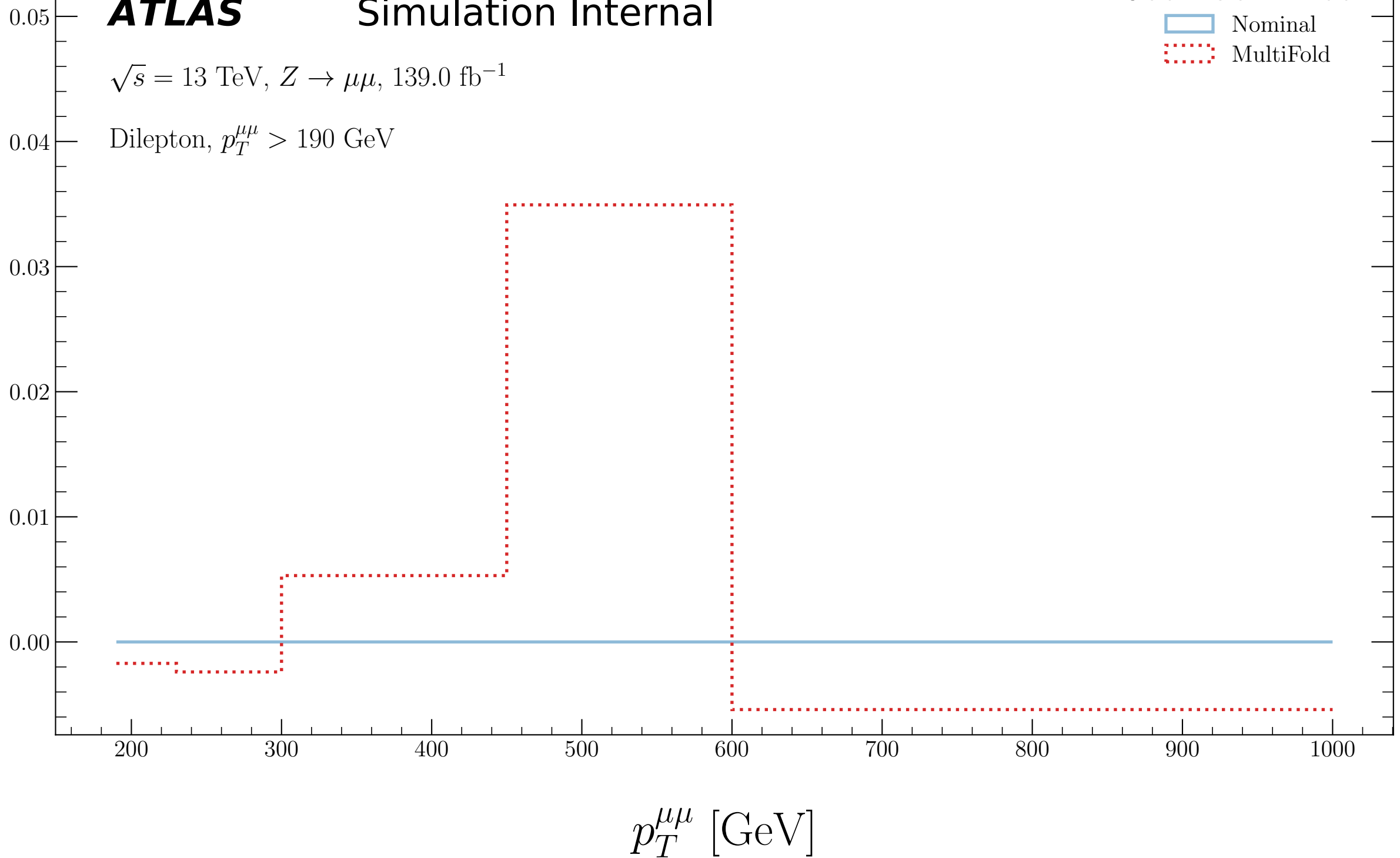


ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

Nominal
MultiFold

Relative Systematic Effect (MultiFold)

ATLAS

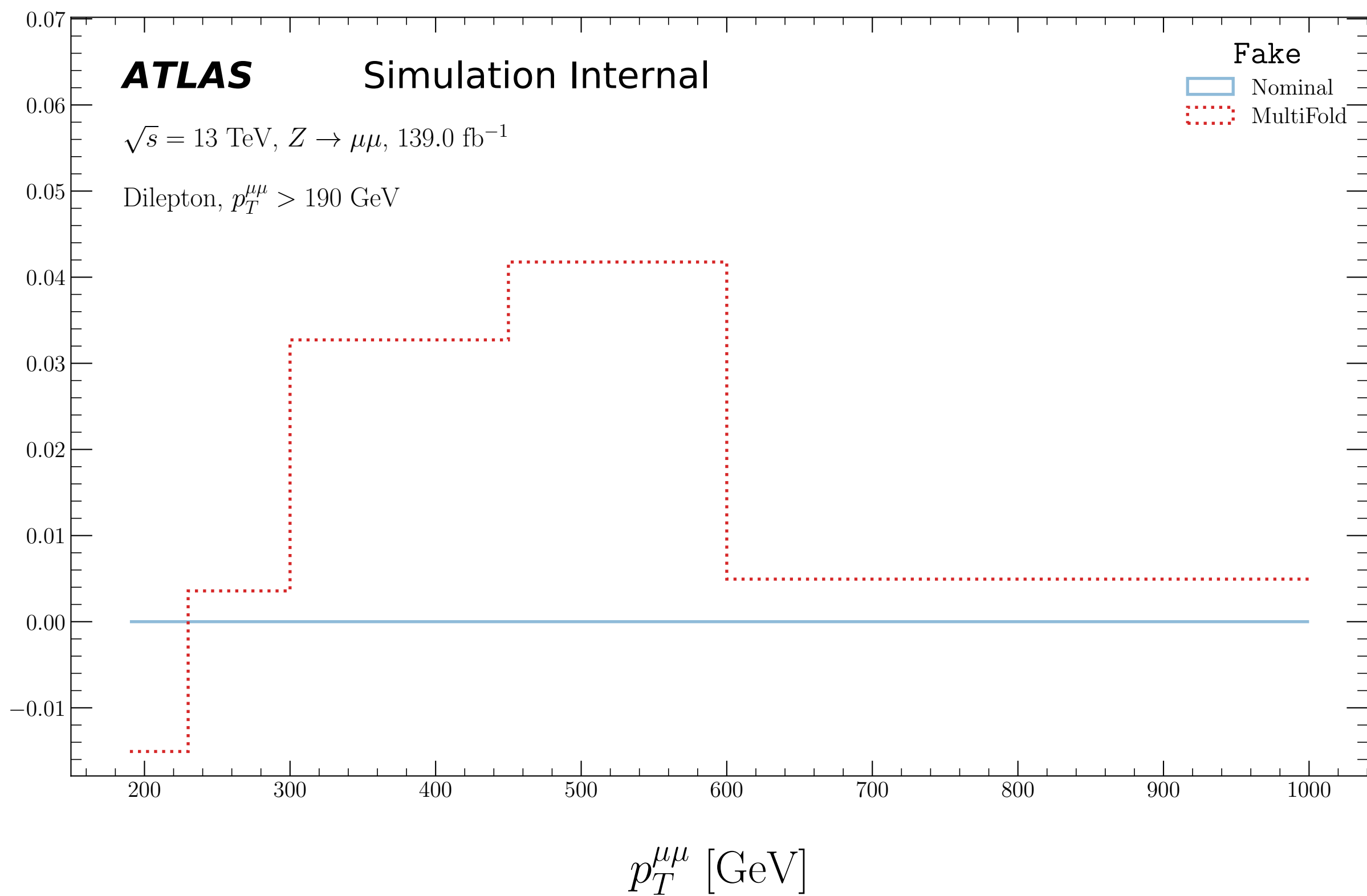
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

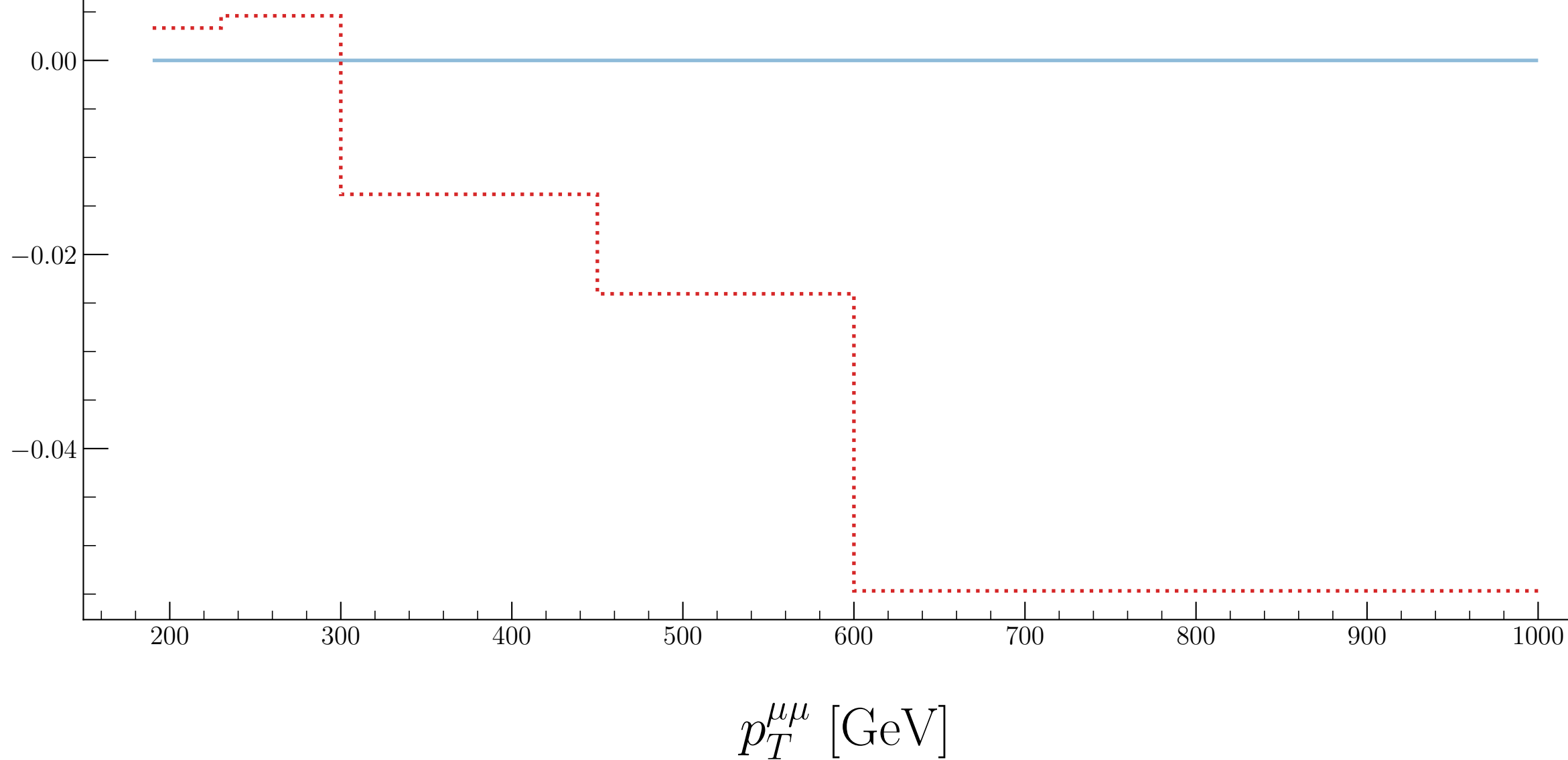
Nominal
MultiFold



ATLAS

Simulation Internal

pTScale

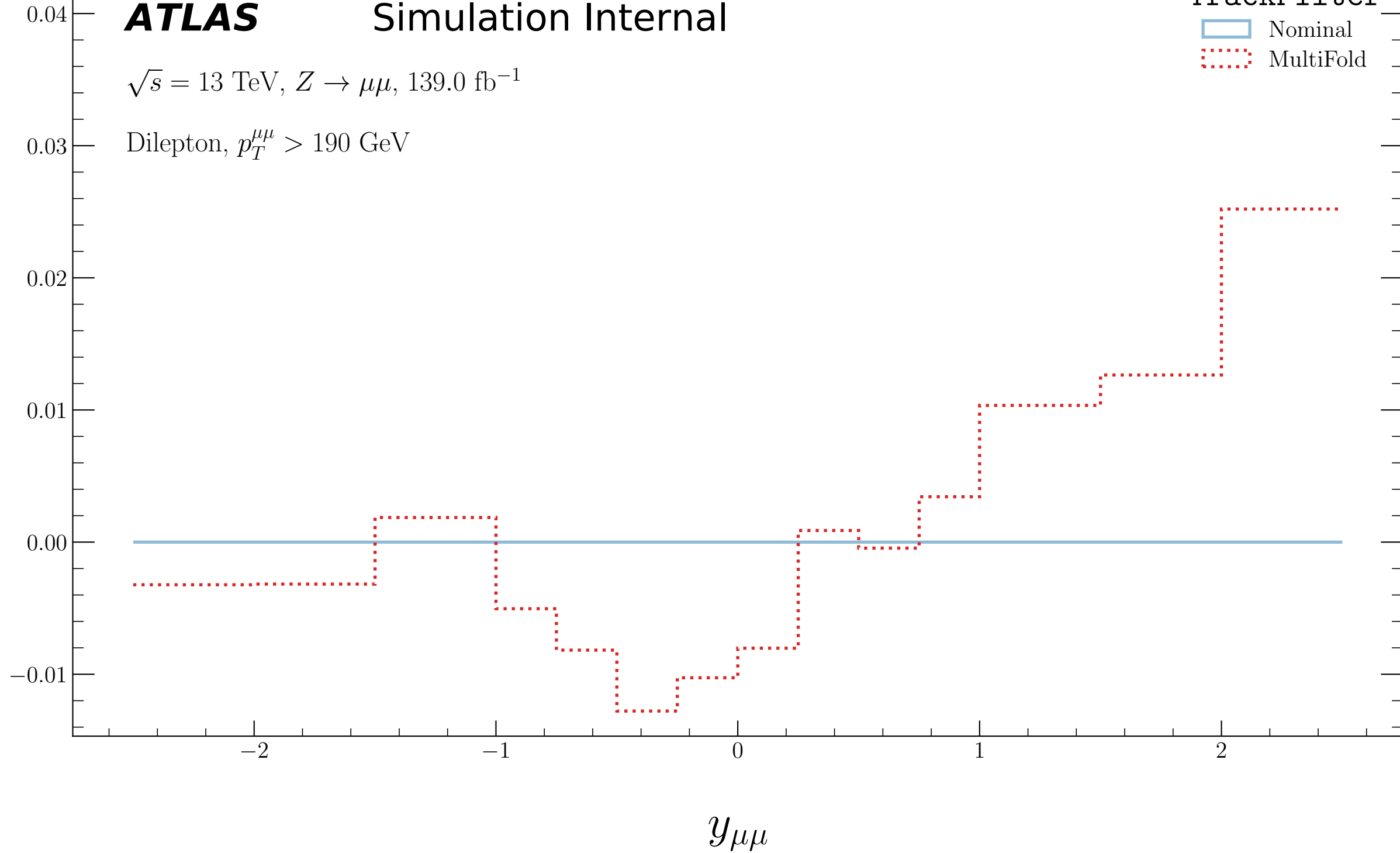
Nominal
MultiFold $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$ 

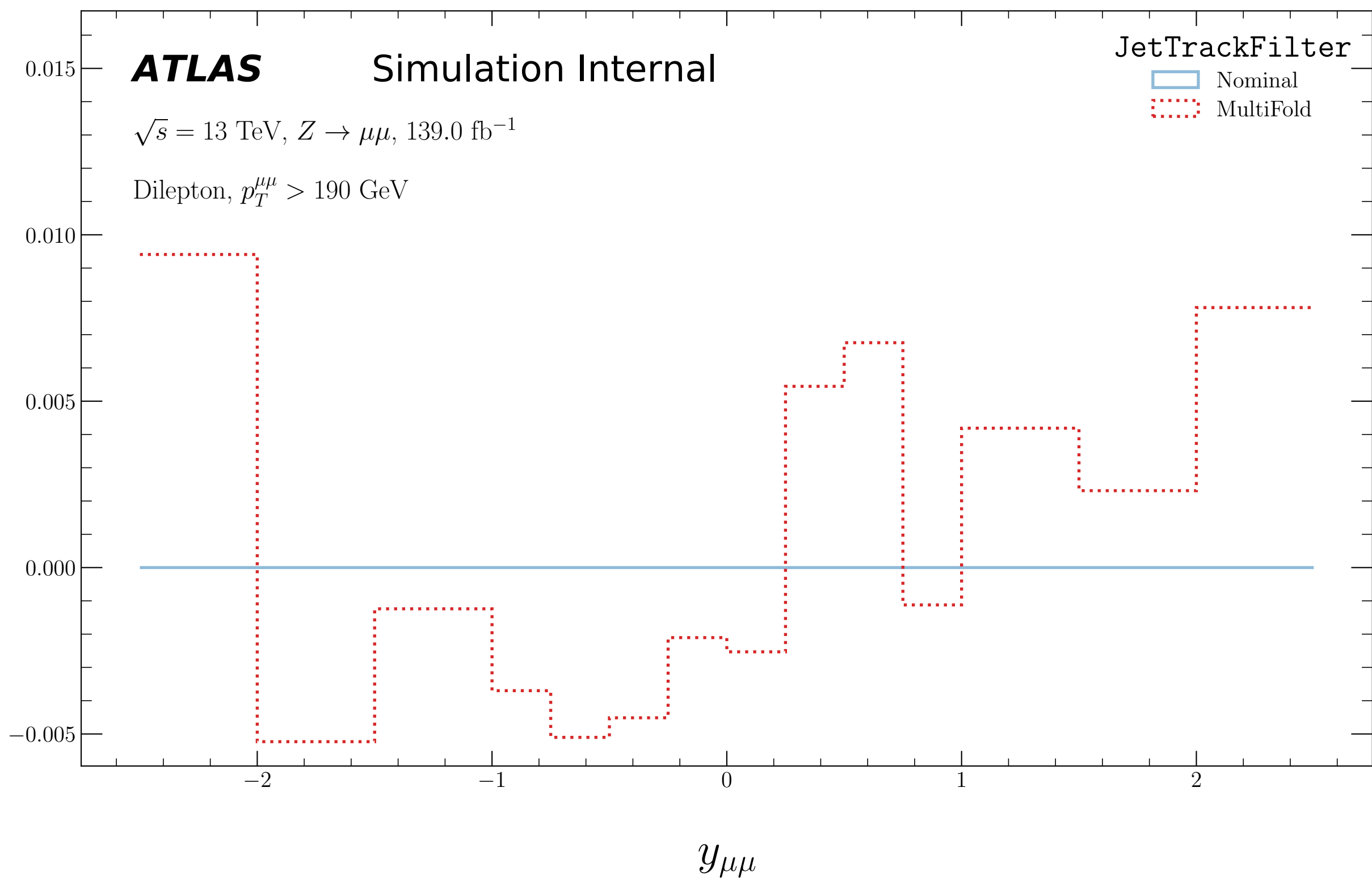
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold



Relative Systematic Effect (MultiFold)

ATLAS

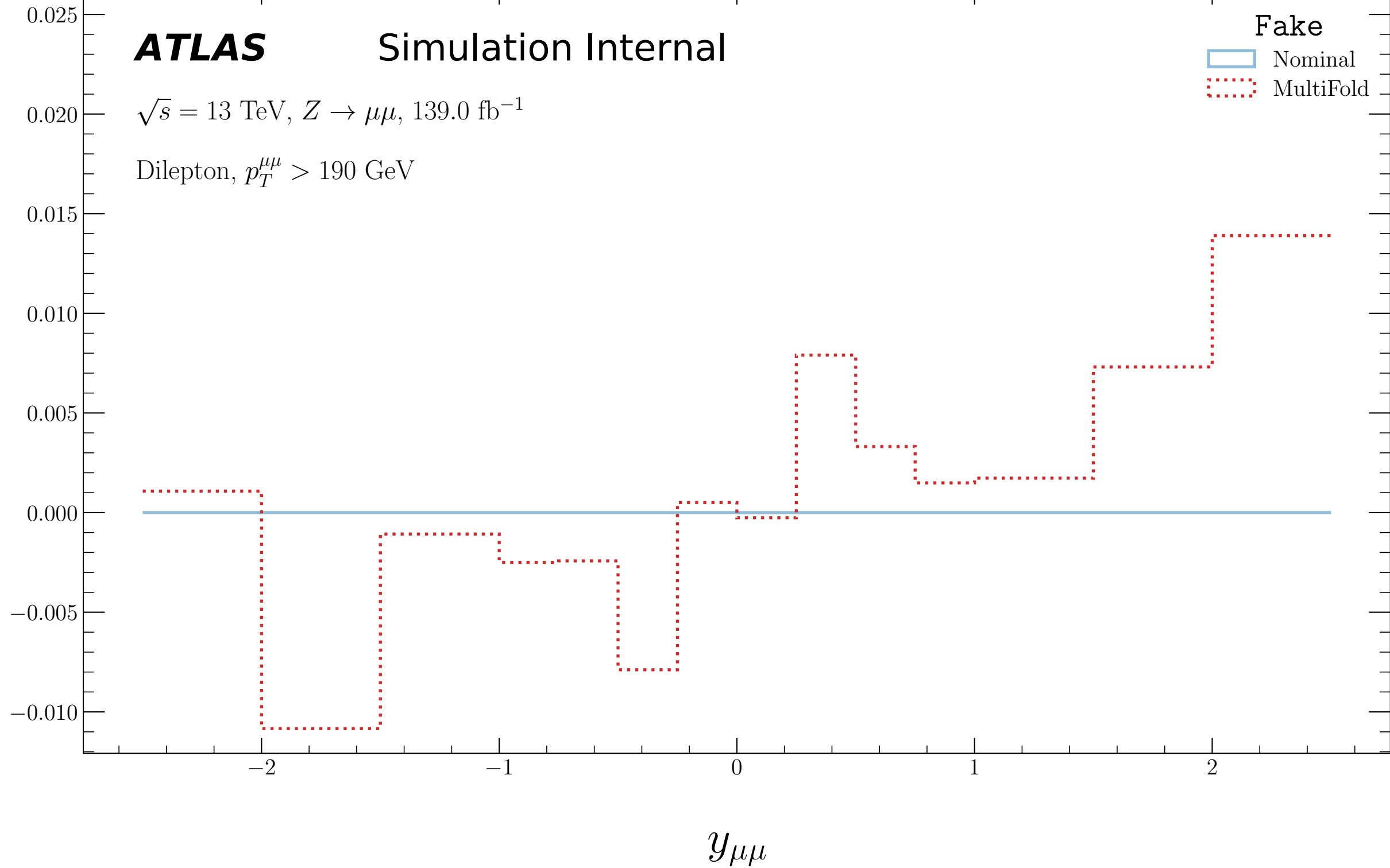
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

Nominal
MultiFold



Relative Systematic Effect (MultiFold)

ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

Nominal
MultiFold

0.10
0.08
0.06
0.04
0.02
0.00

-2

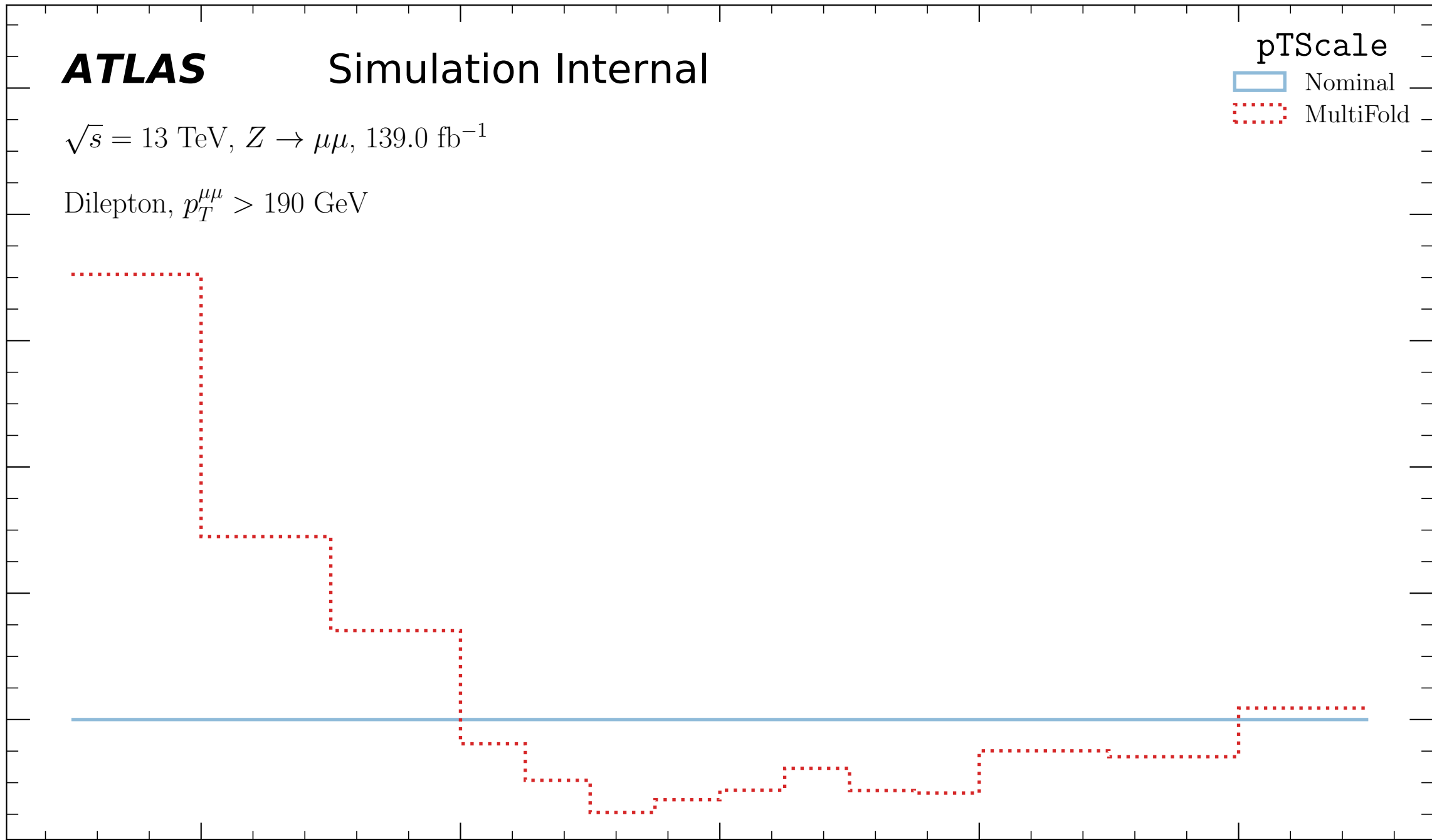
-1

0

1

2

$y_{\mu\mu}$

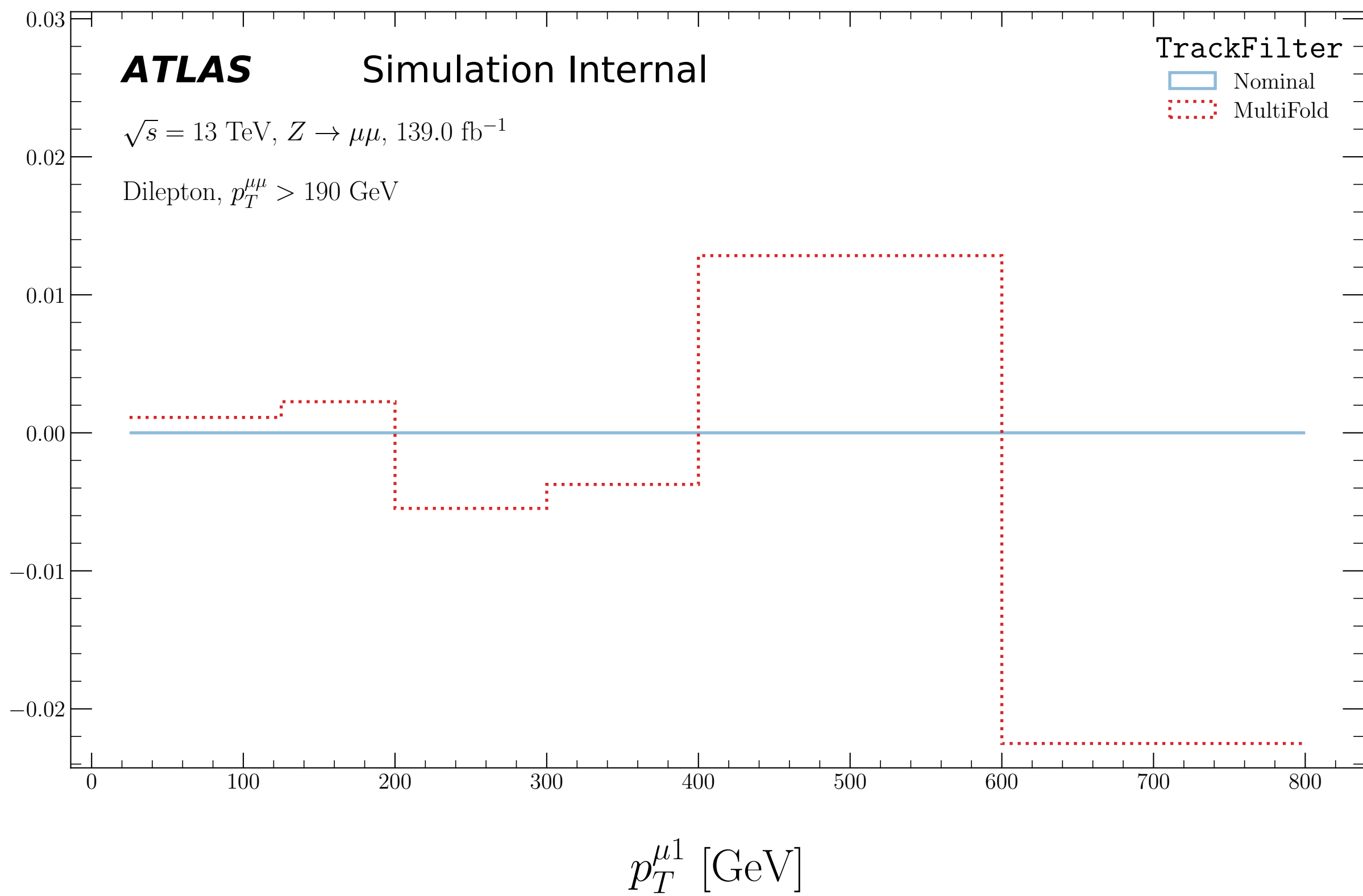


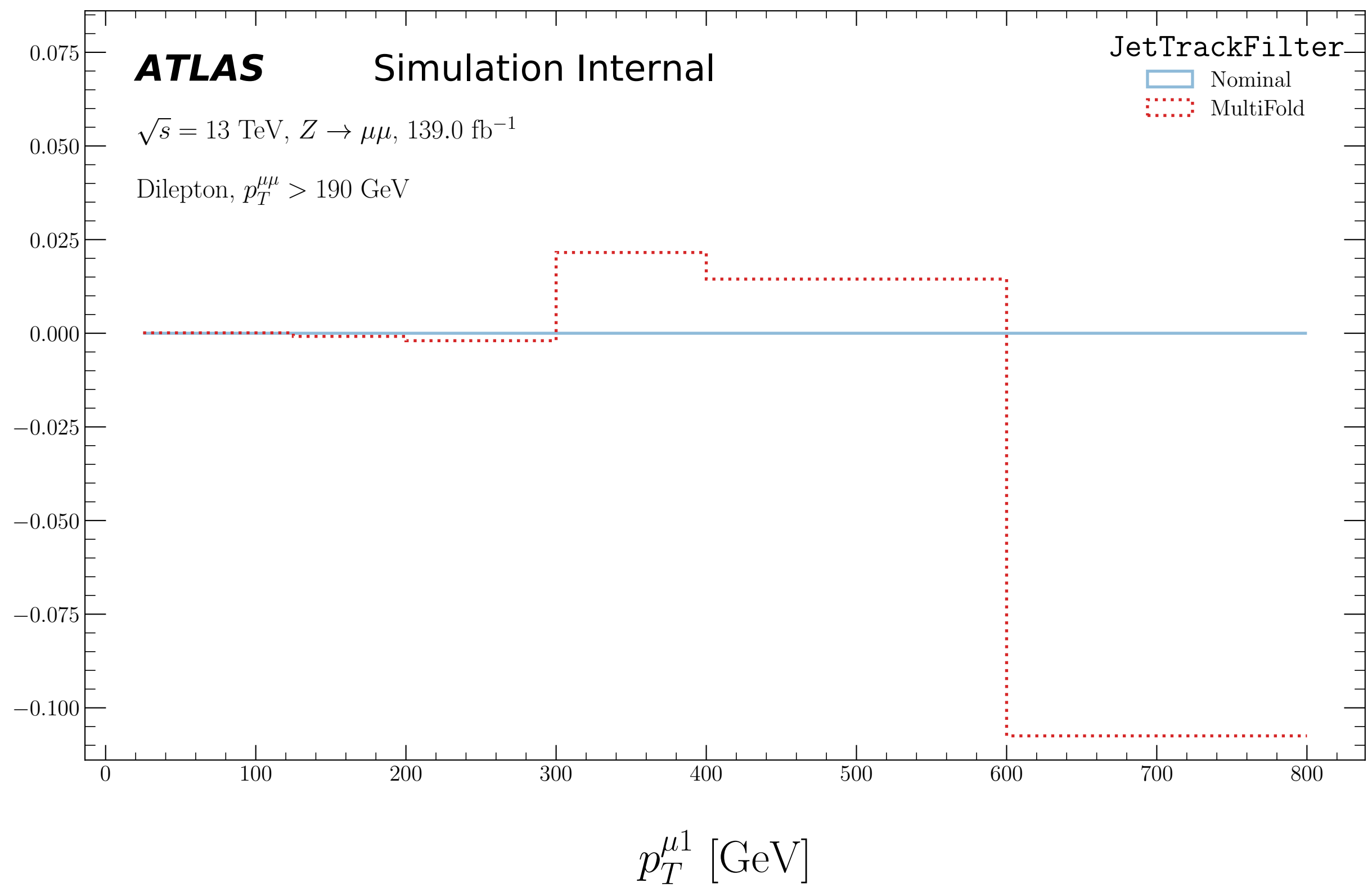
ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold

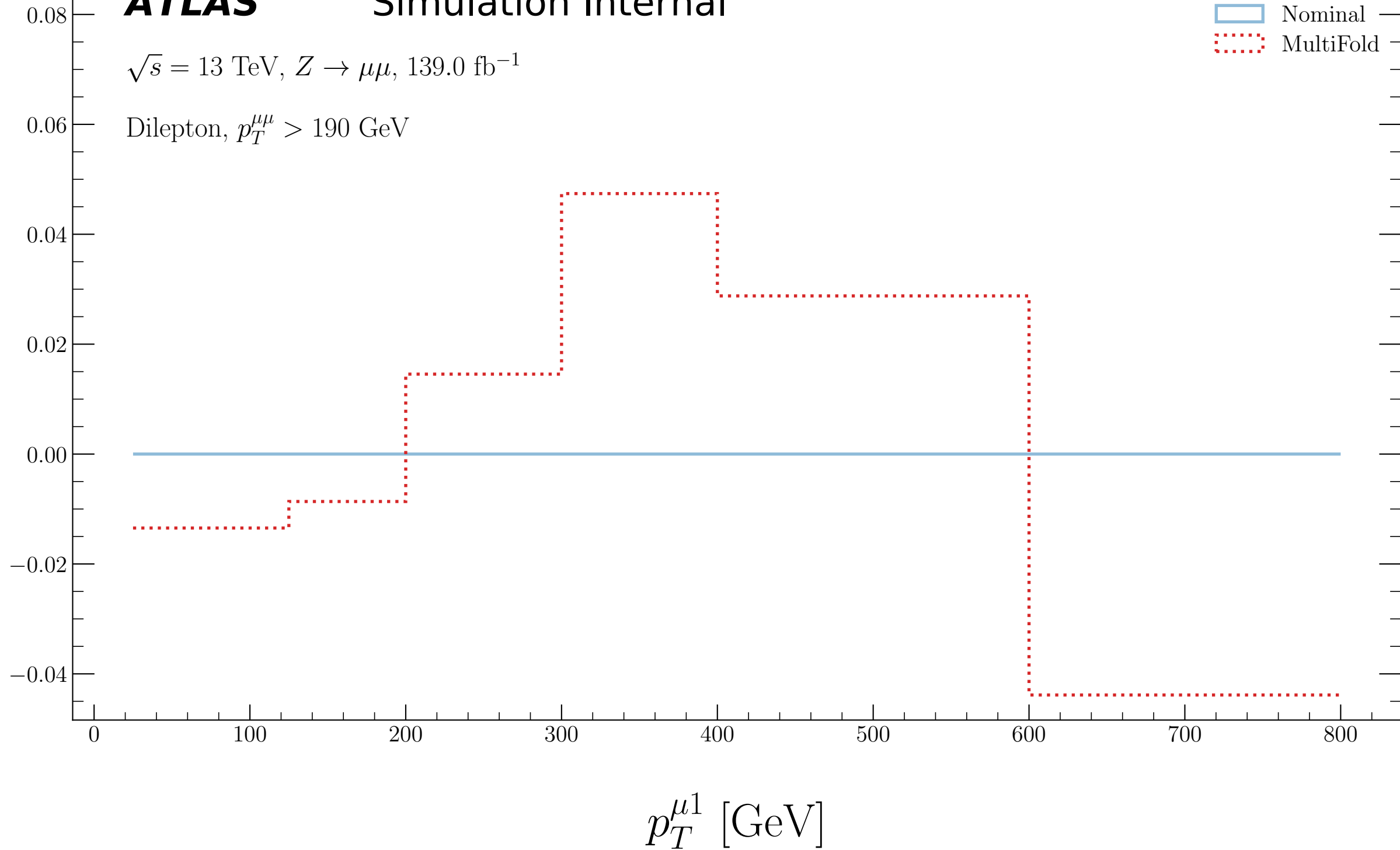


ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

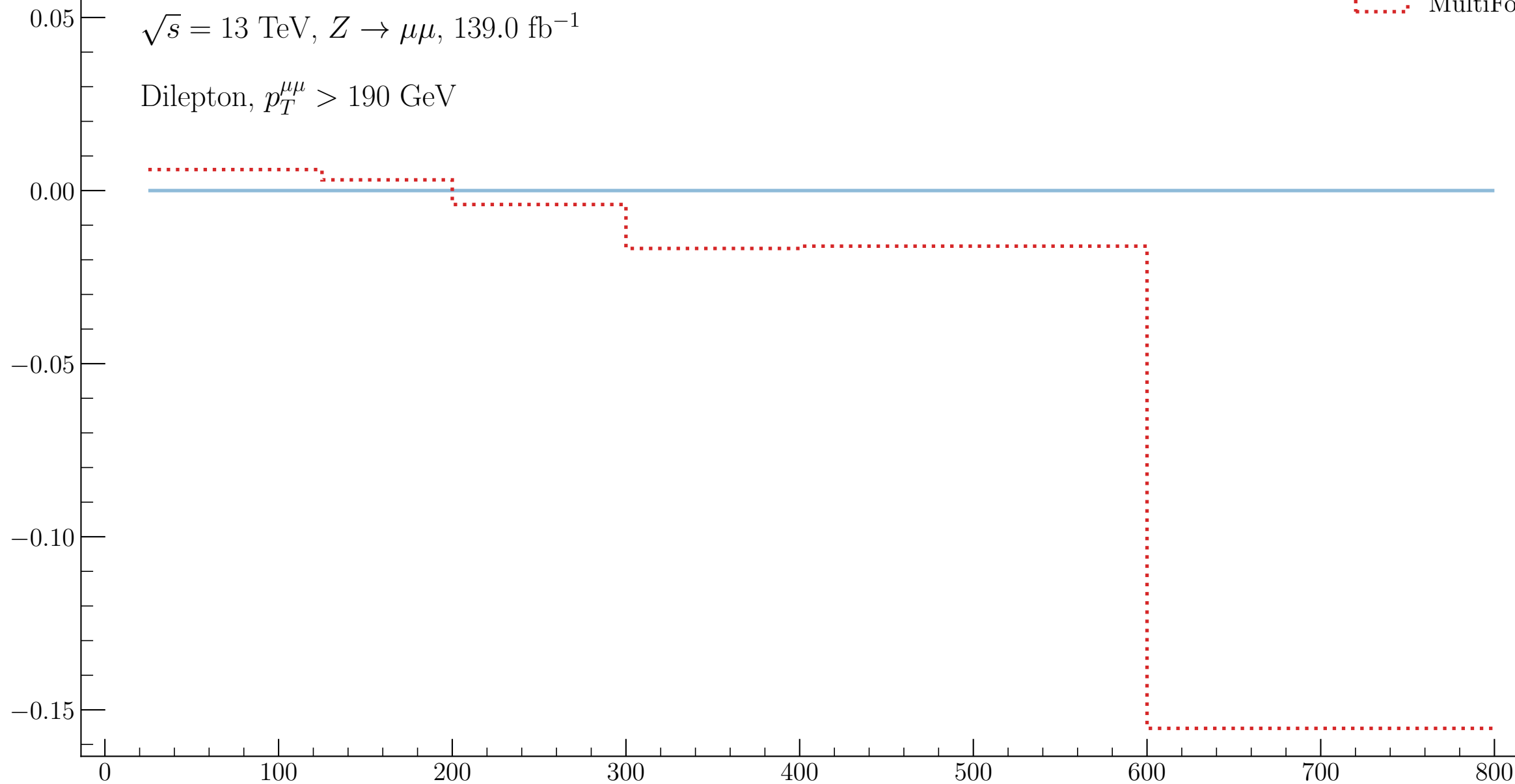
Nominal
MultiFold

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

Nominal
MultiFold $p_T^{\mu 1}$ [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

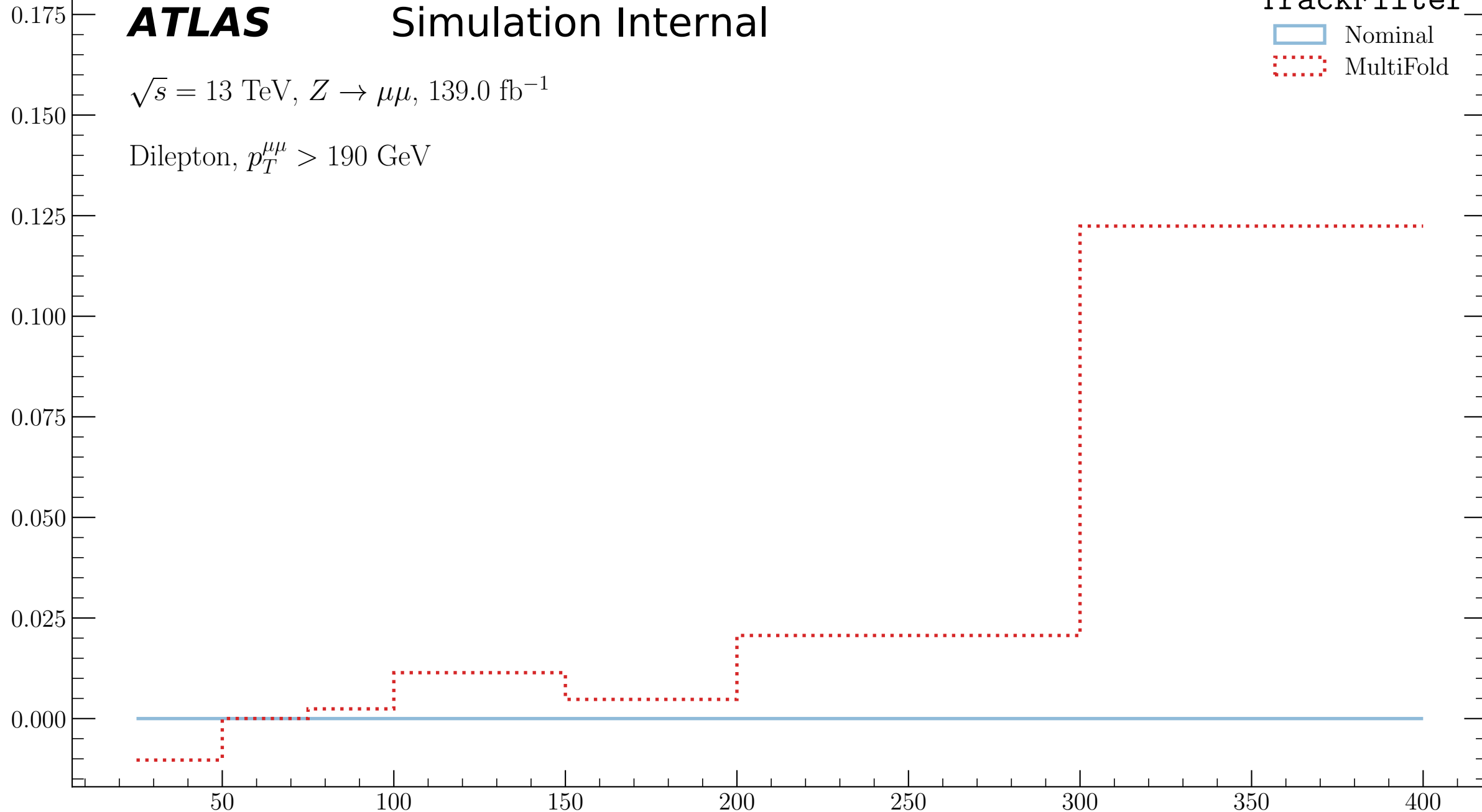
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold



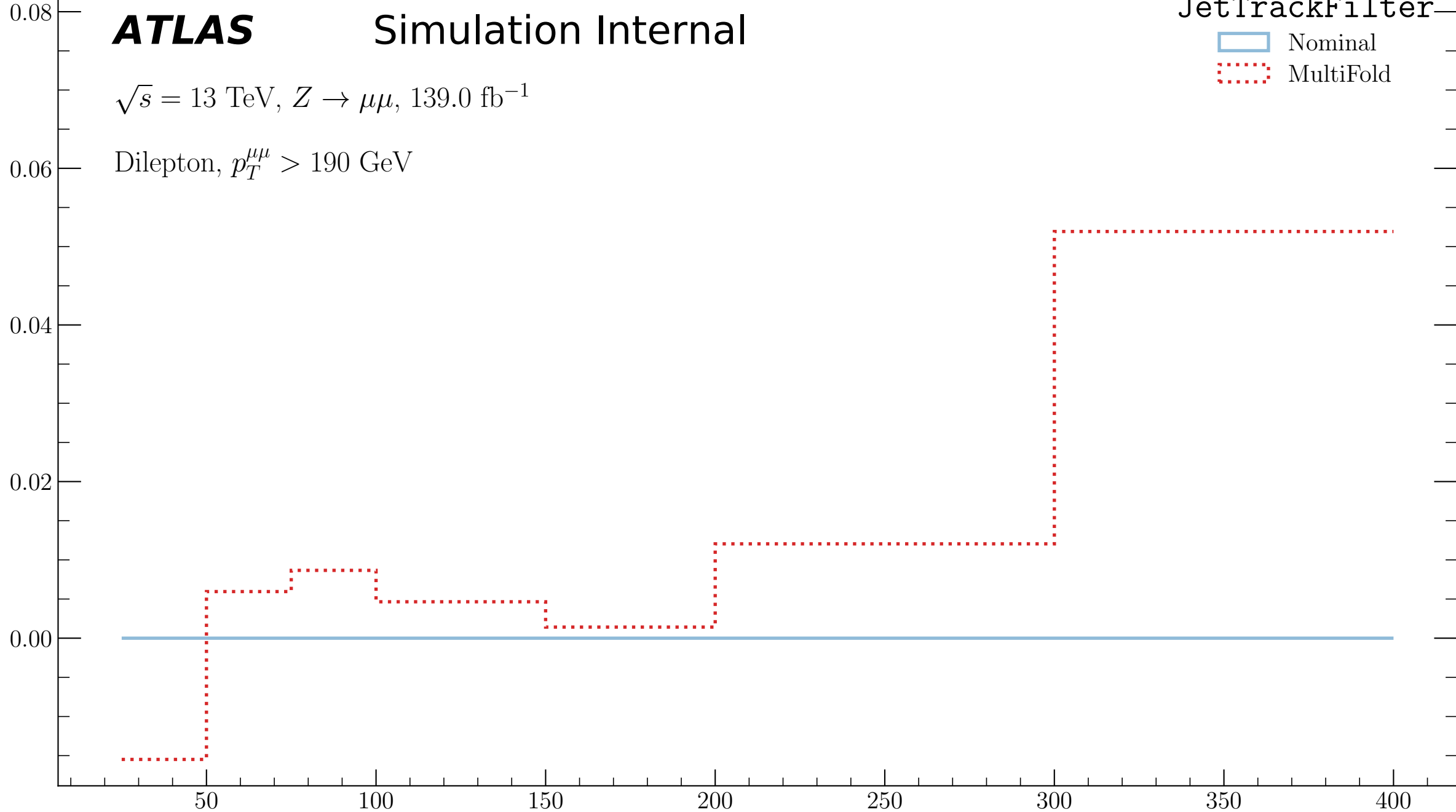
$p_T^{\mu\mu}$ [GeV]

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

Nominal
MultiFold $p_T^{\mu\mu}$ [GeV]

Relative Systematic Effect (MultiFold)

ATLAS

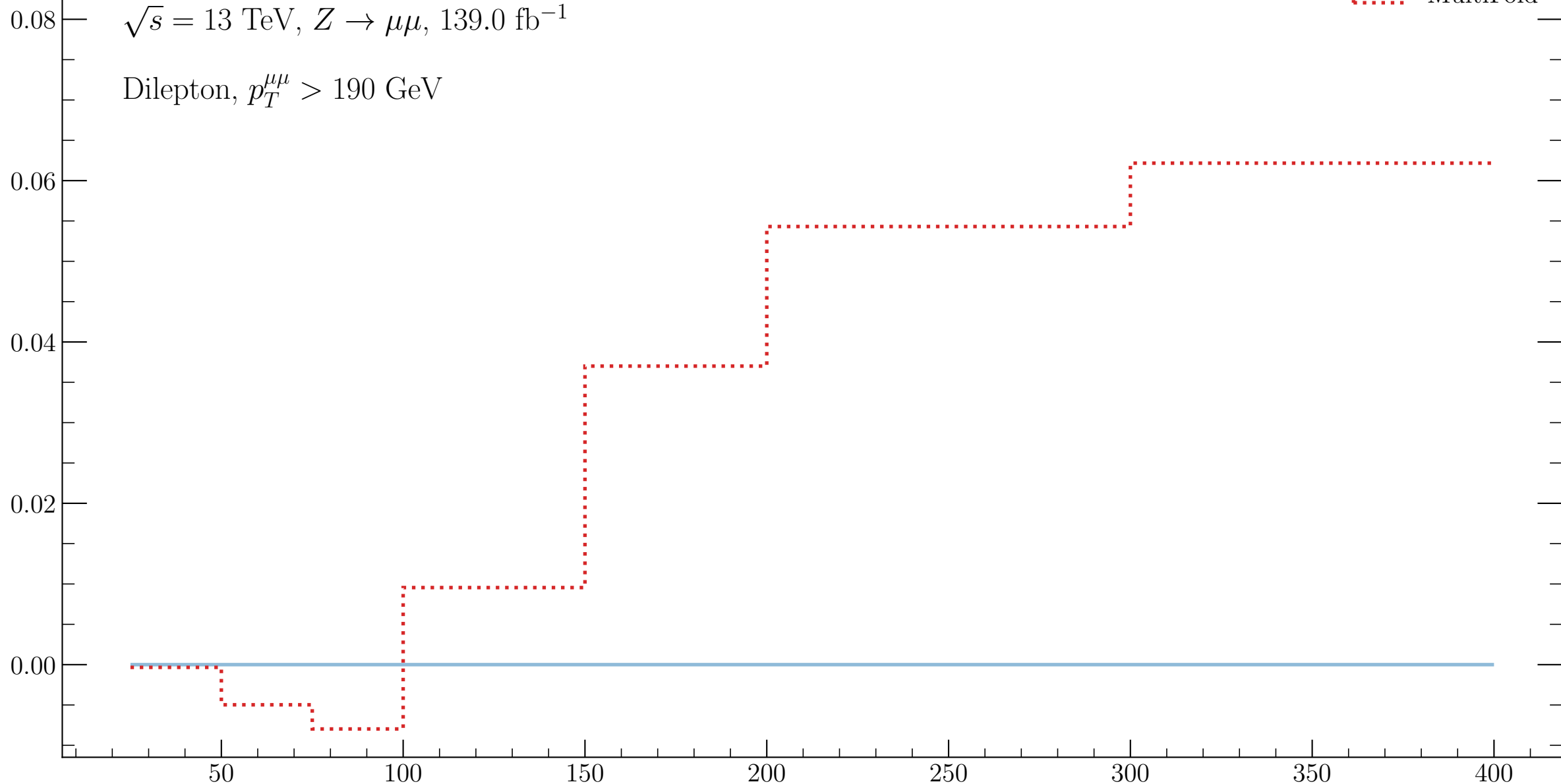
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

Nominal
MultiFold



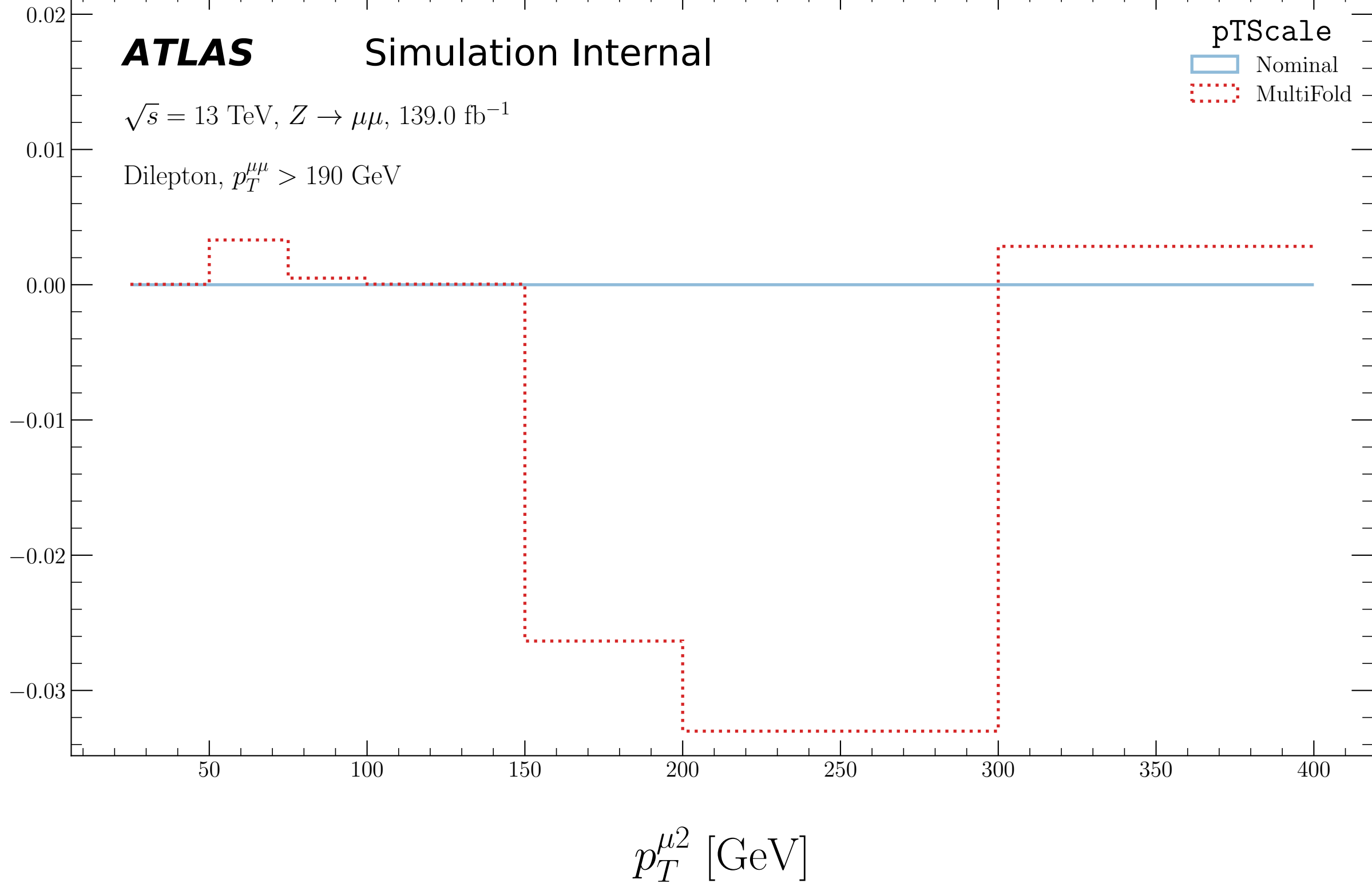
$p_T^{\mu\mu}$ [GeV]

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale
Nominal
MultiFold



Relative Systematic Effect (MultiFold)

ATLAS

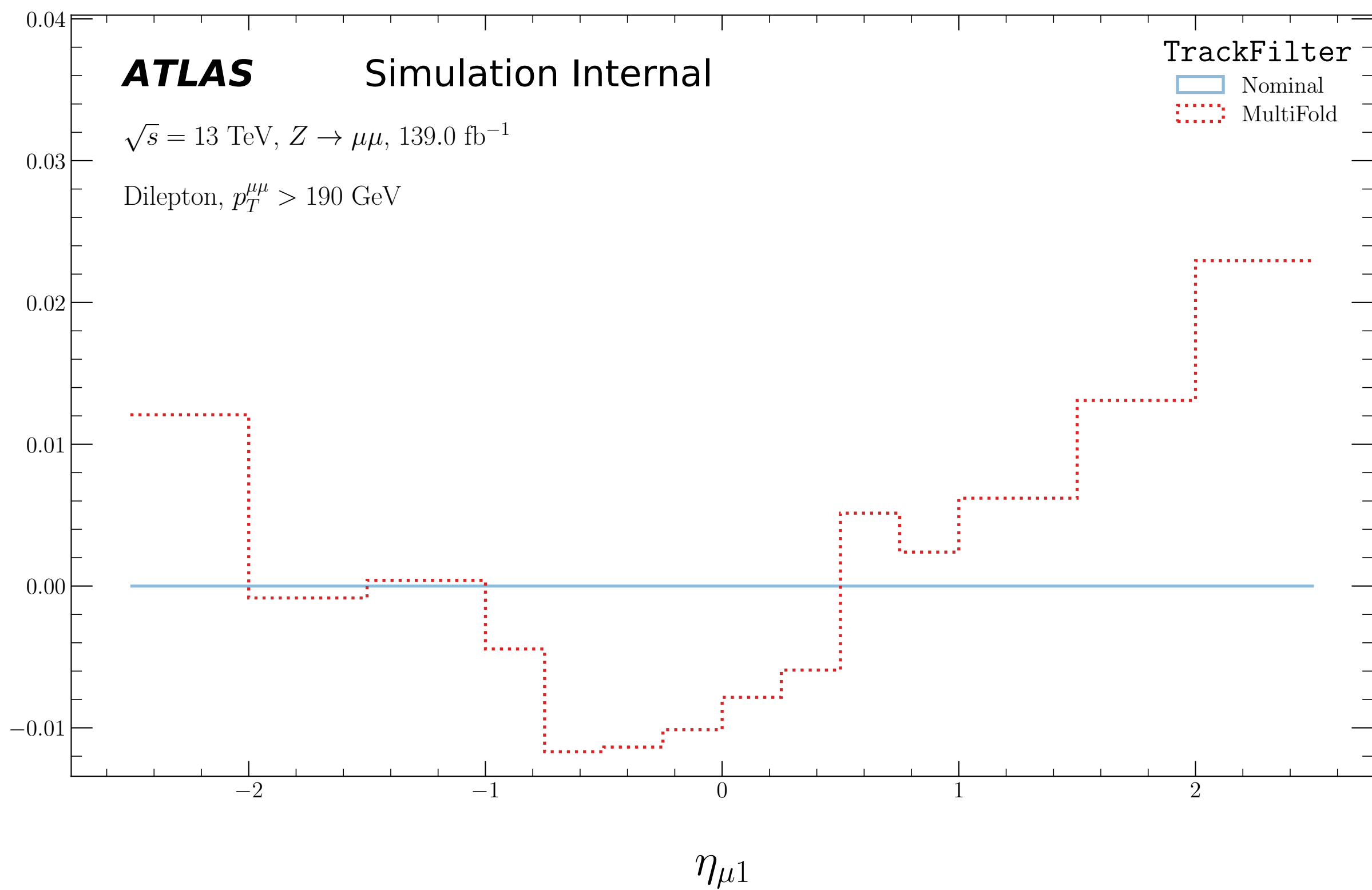
Simulation Internal

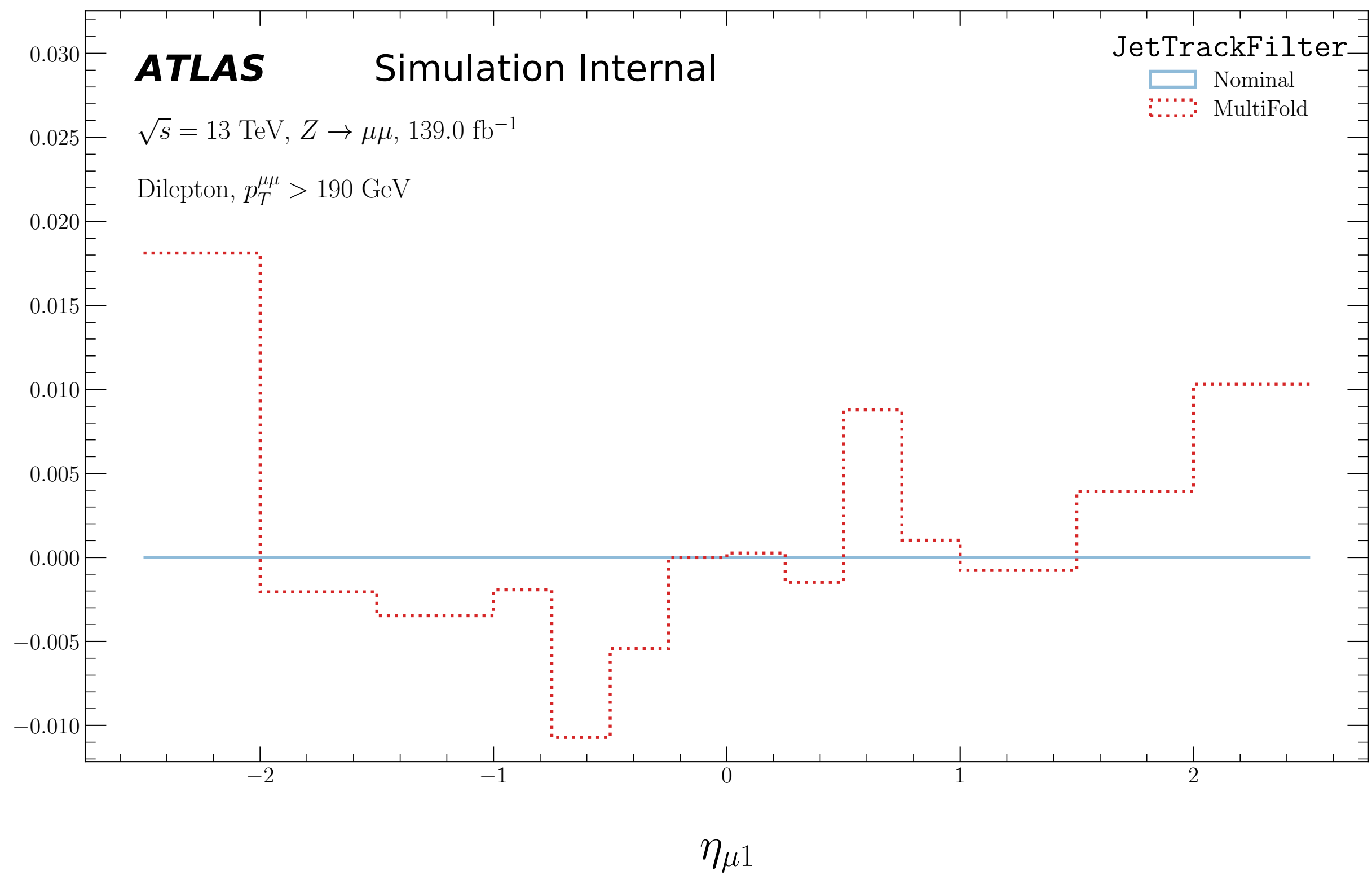
$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold





ATLAS

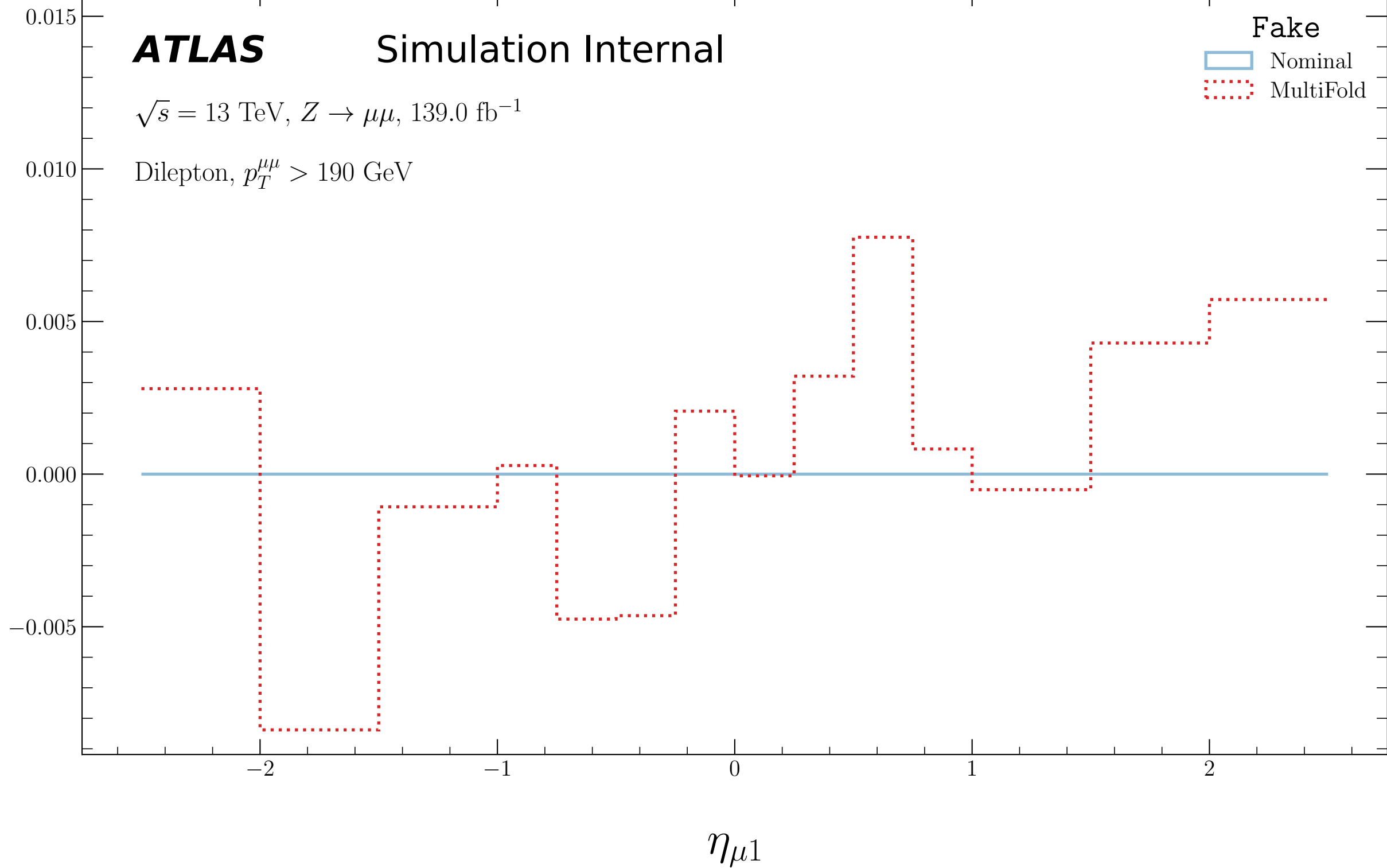
Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

Nominal

MultiFold



ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

Nominal
MultiFold0.10
0.08
0.06
0.04
0.02
0.00

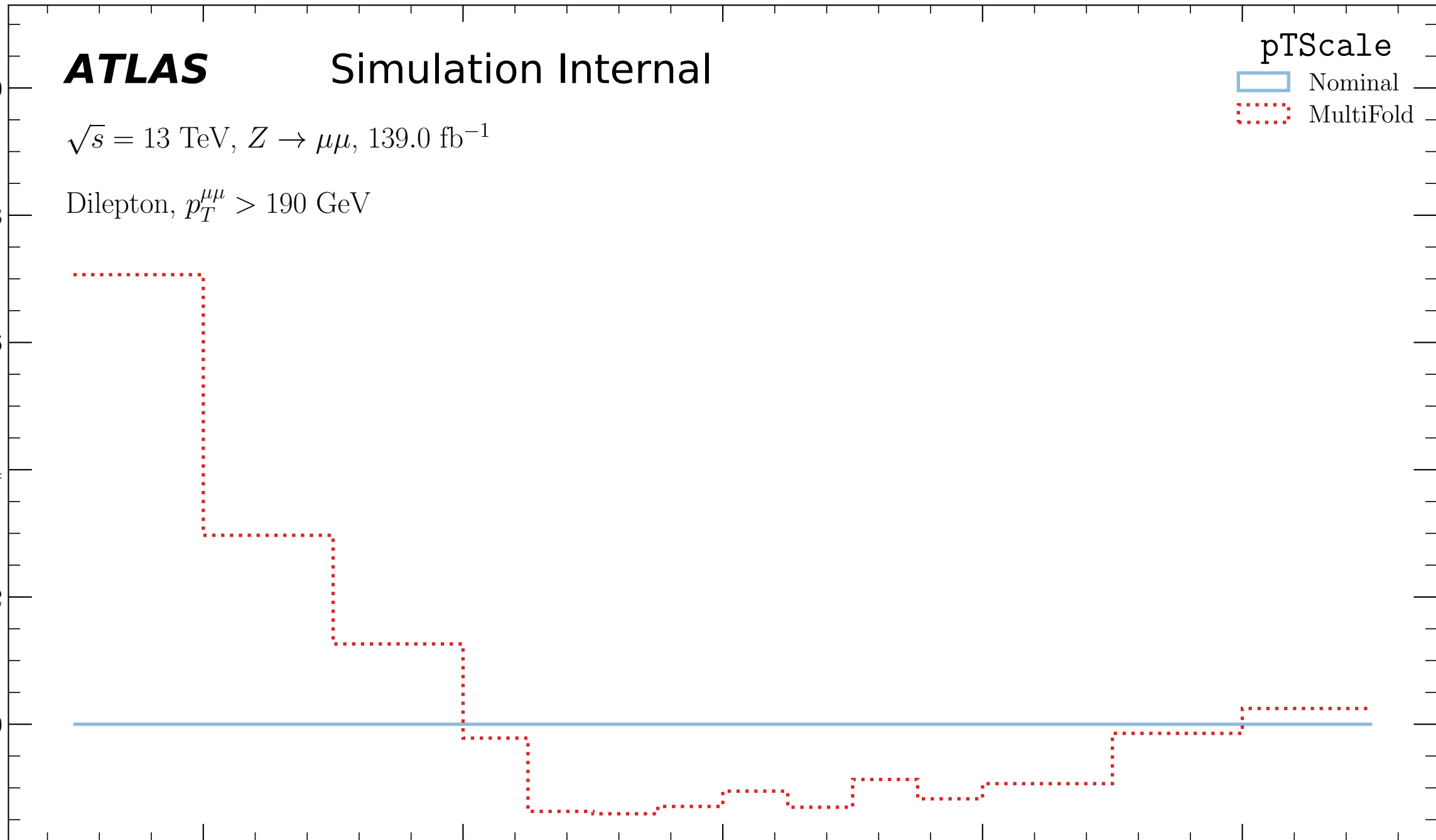
-2

-1

0

1

2

 $\eta_{\mu 1}$ 

Relative Systematic Effect (MultiFold)

ATLAS

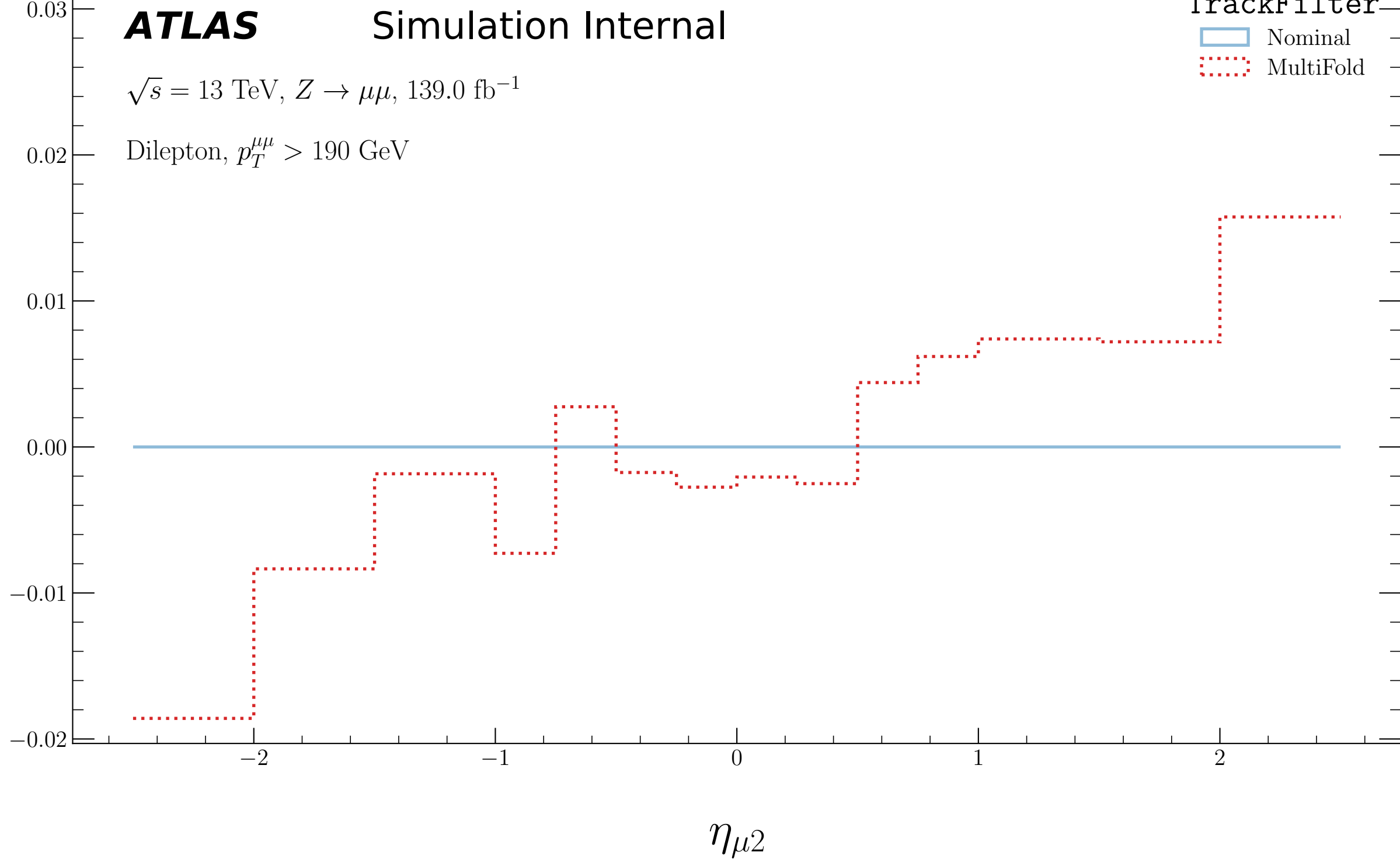
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold



ATLAS

Simulation Internal

JetTrackFilter

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$ Nominal
MultiFold0.015
0.010
0.005
0.000
-0.005
-0.010

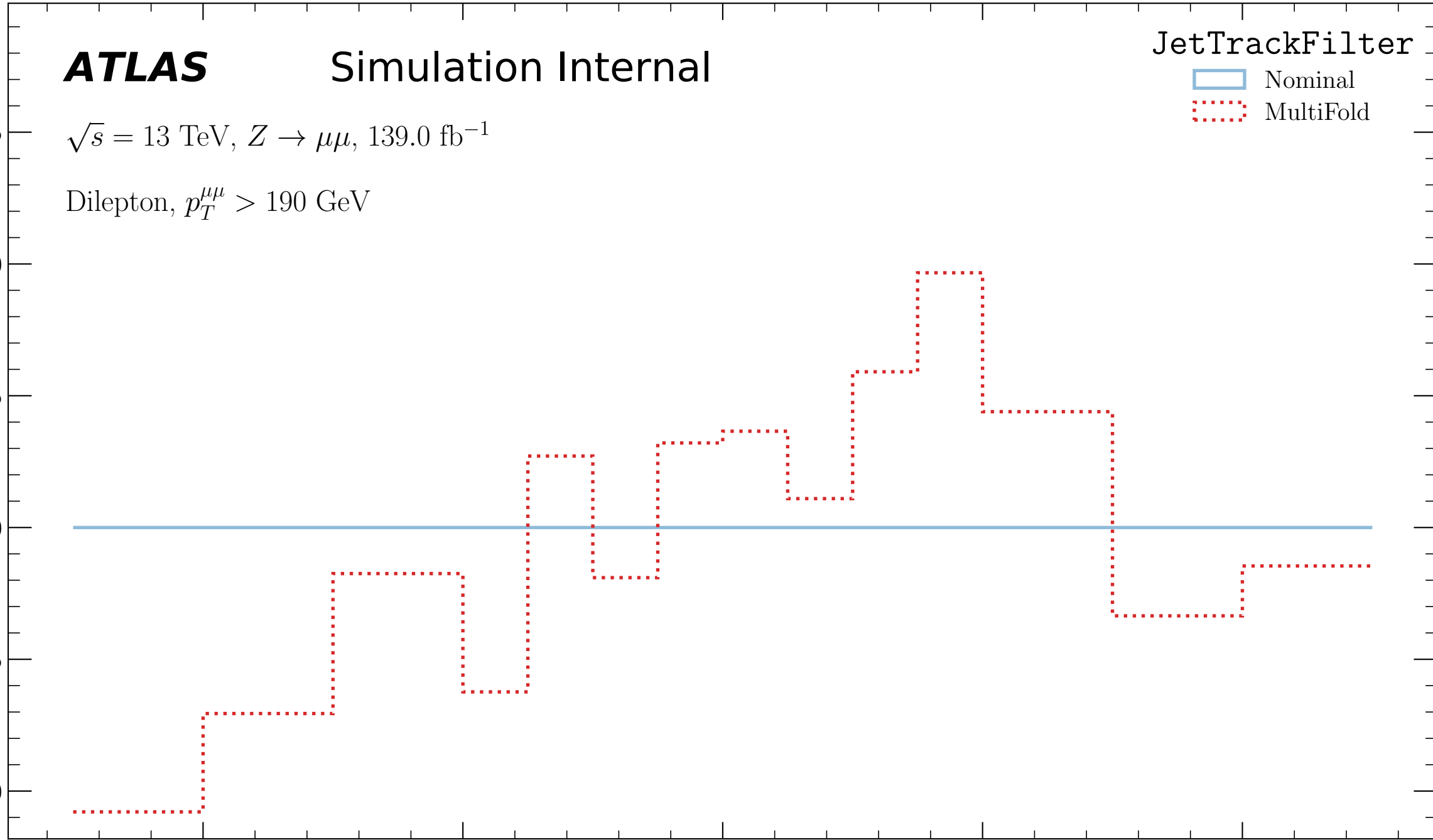
-2

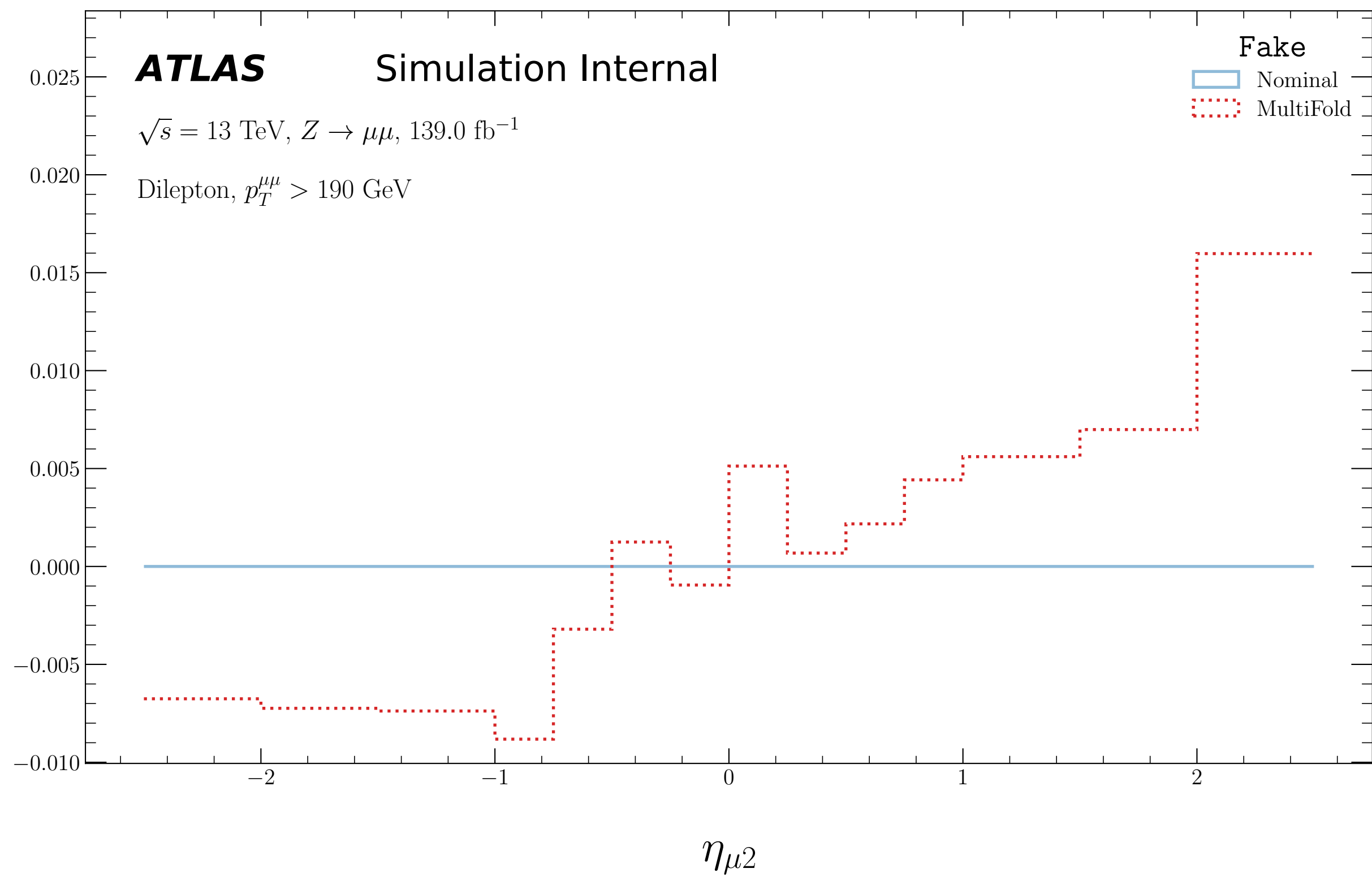
-1

0

1

2

 $\eta_{\mu 2}$ 



Relative Systematic Effect (MultiFold)

ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale
Nominal
MultiFold

0.05
0.04
0.03
0.02
0.01
0.00
-0.01

-2

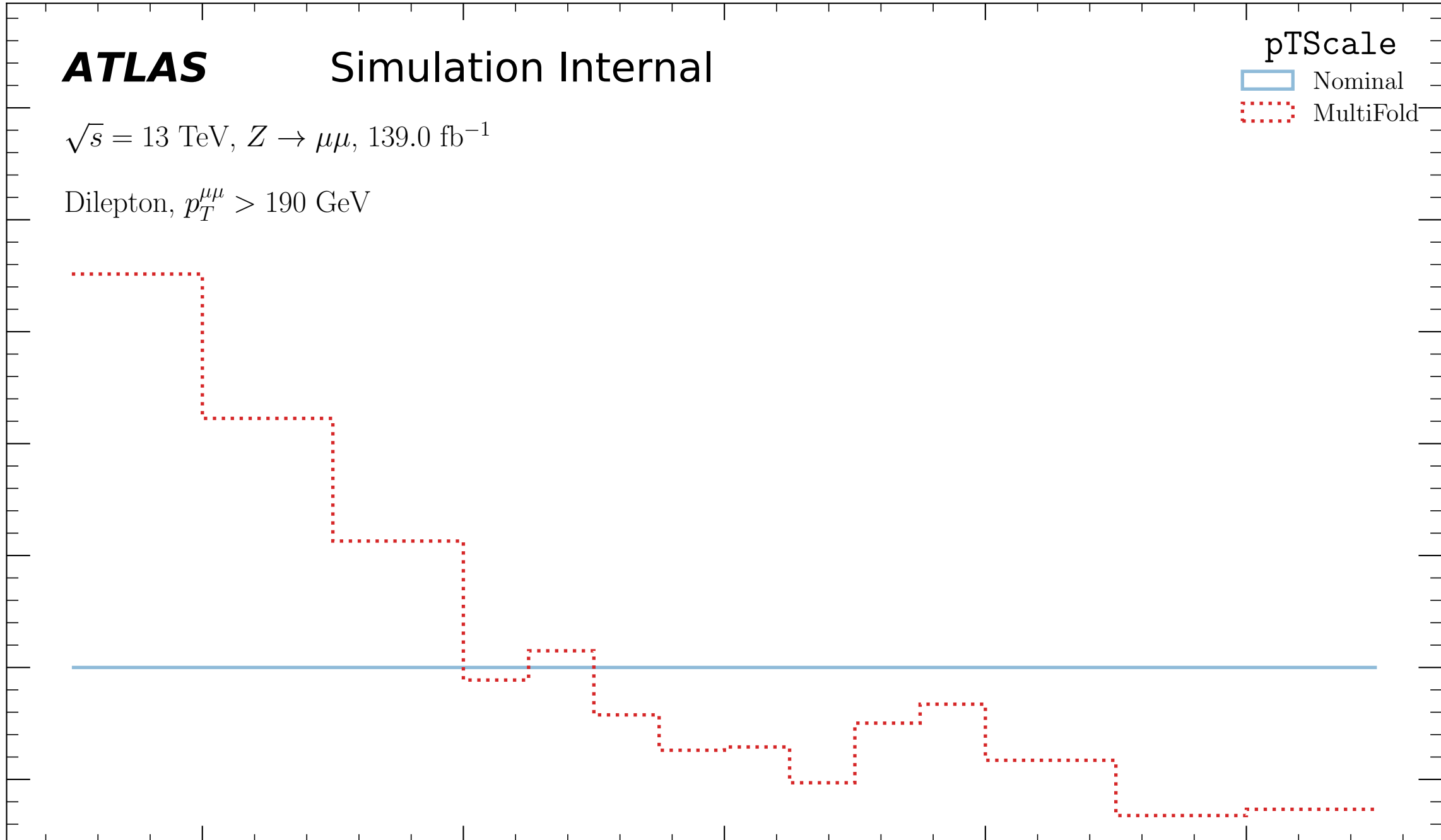
-1

0

1

2

$\eta_{\mu 2}$



Relative Systematic Effect (MultiFold)

ATLAS

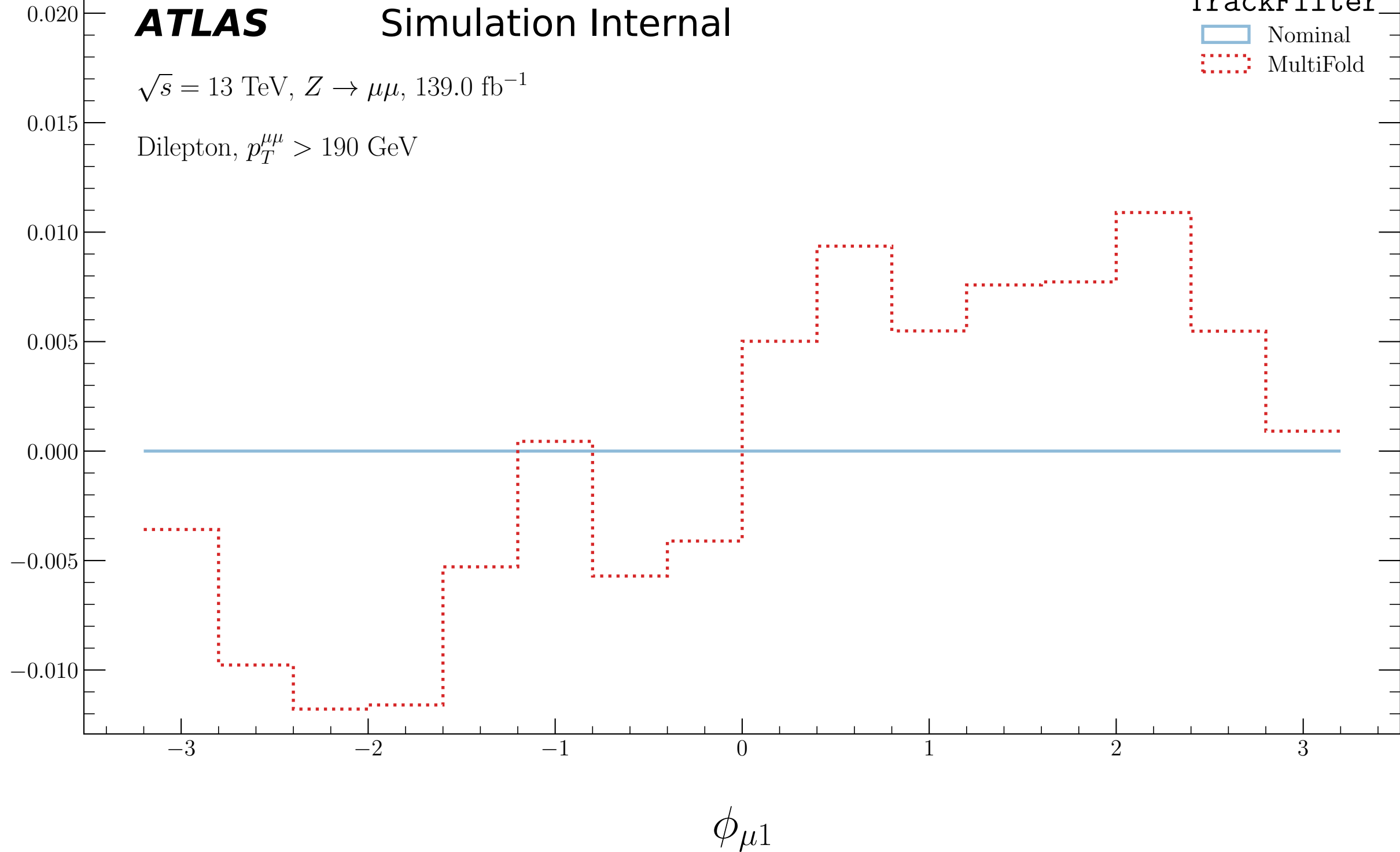
Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold



ATLAS

Simulation Internal

JetTrackFilter

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$ Nominal
MultiFold0.03
0.02
0.01
0.00
-0.01
-0.02

-3

-2

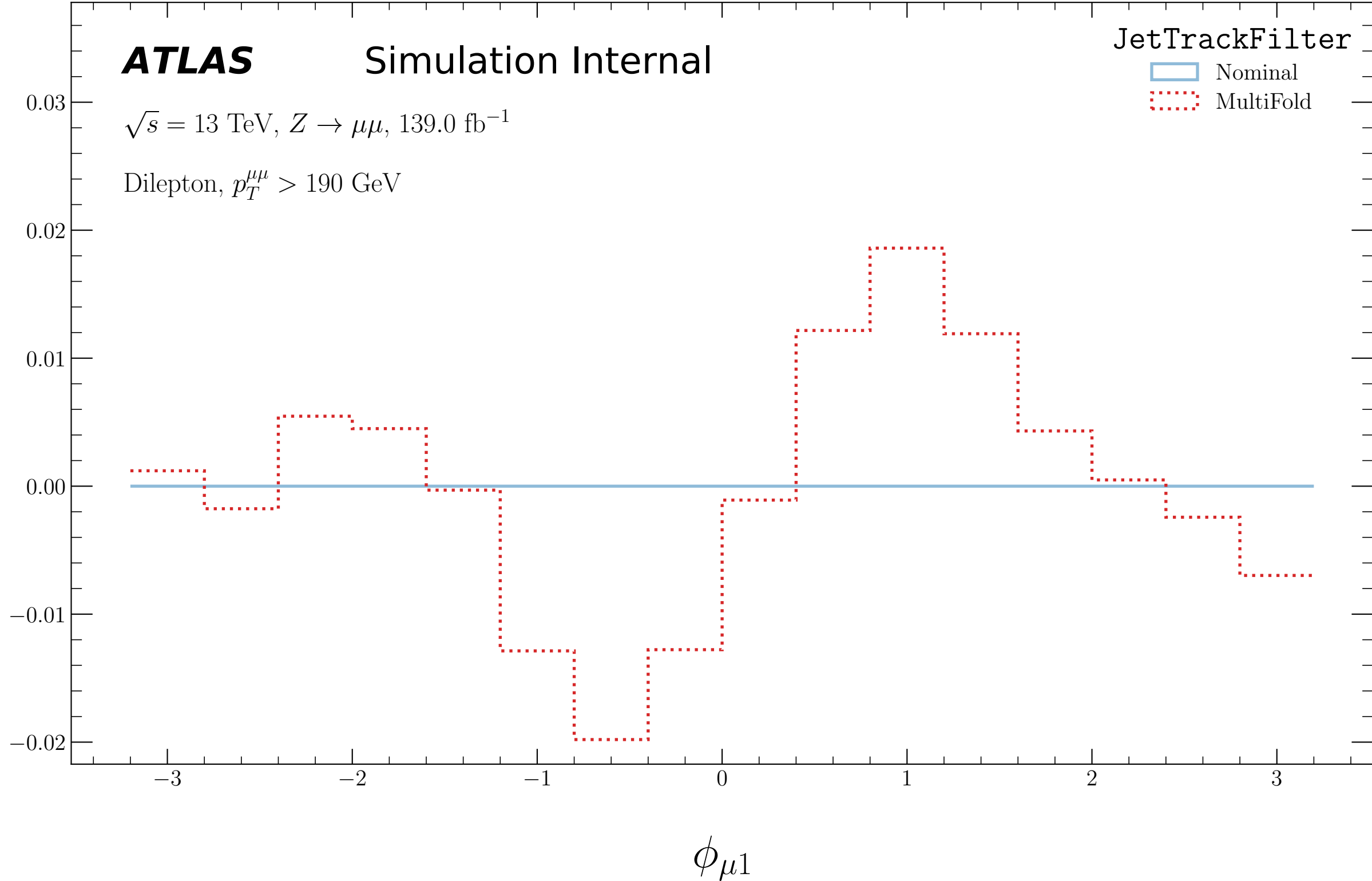
-1

0

1

2

3

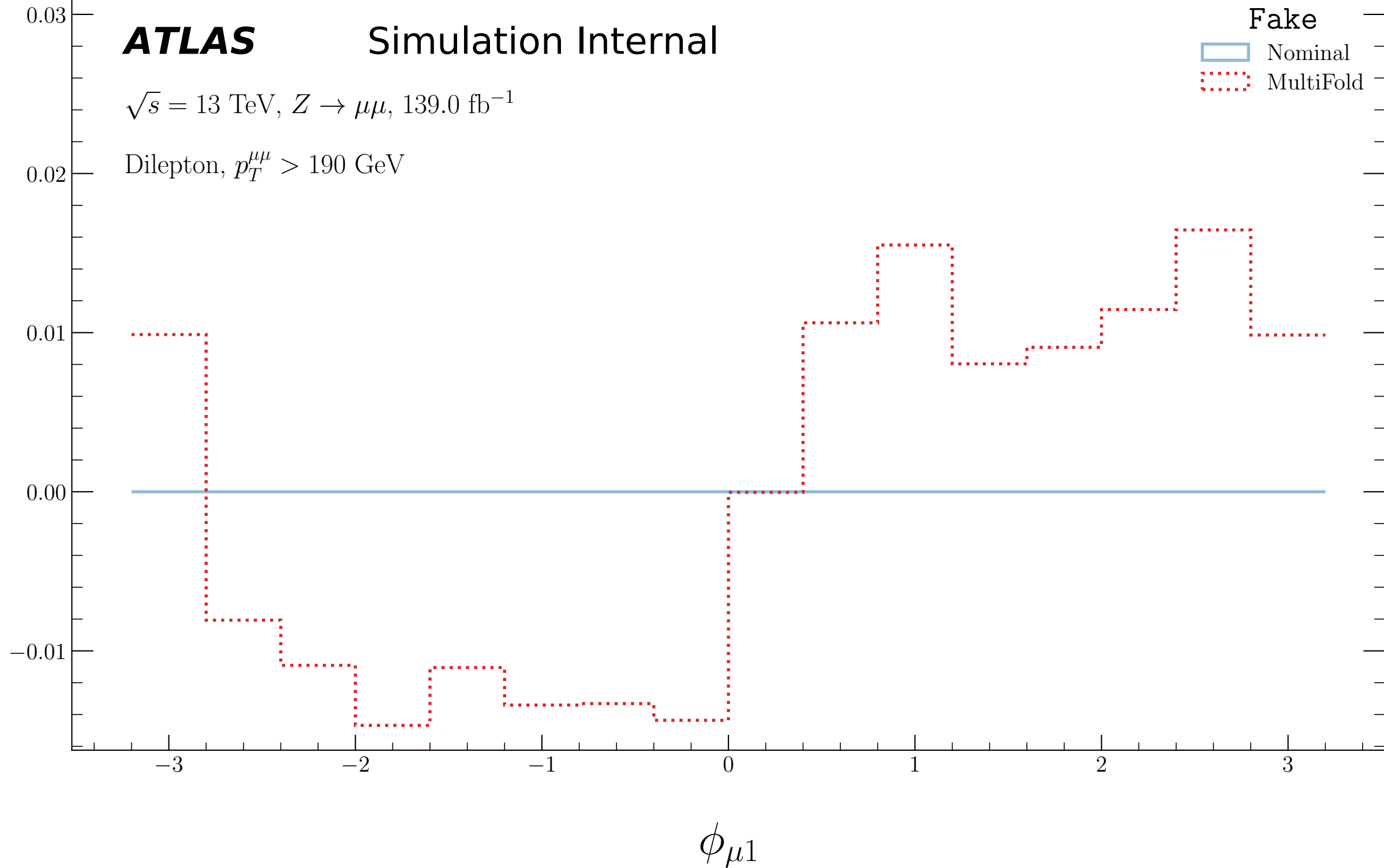
 $\phi_{\mu 1}$ 

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

Fake

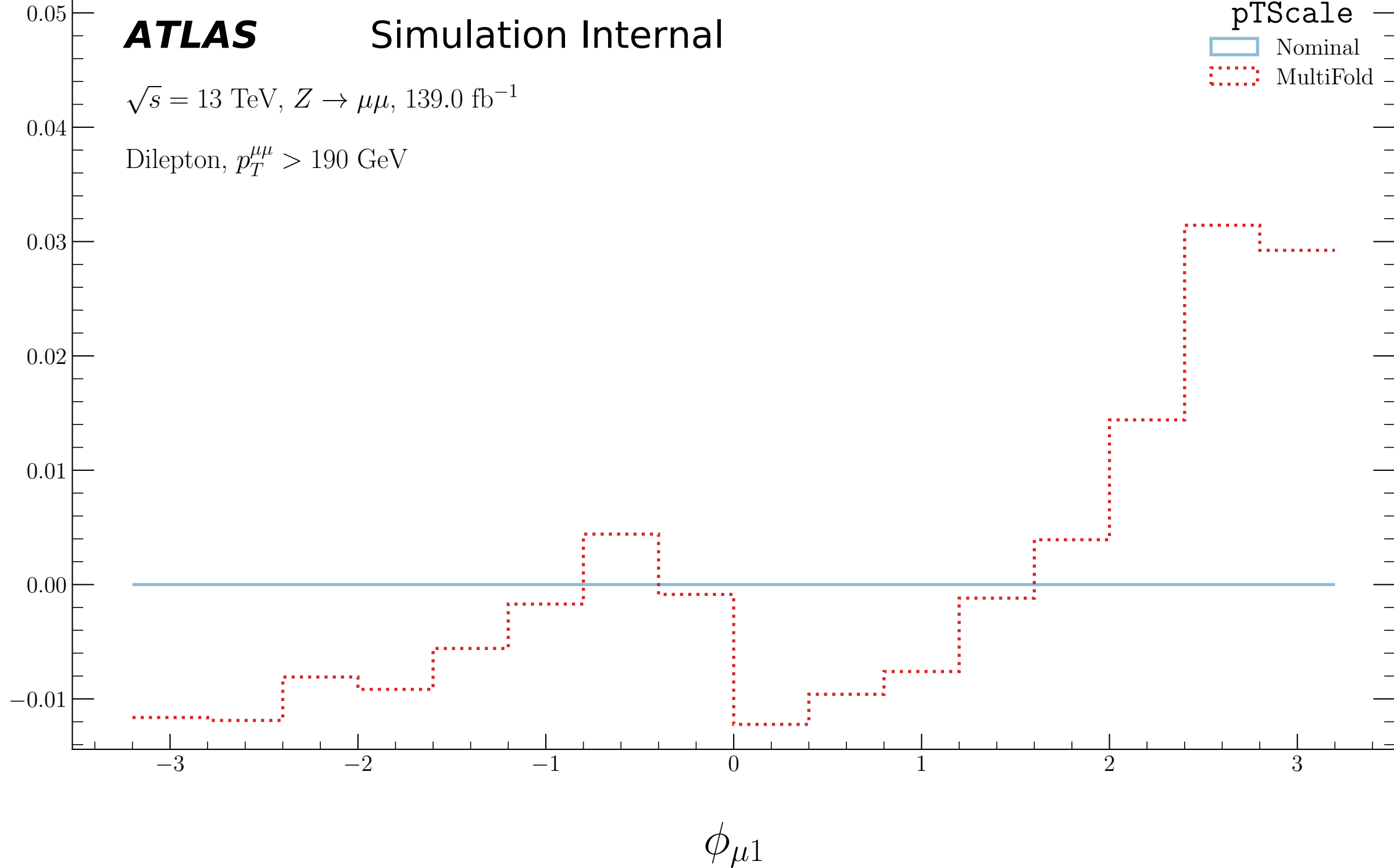
Nominal
MultiFold

ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale
Nominal
MultiFold

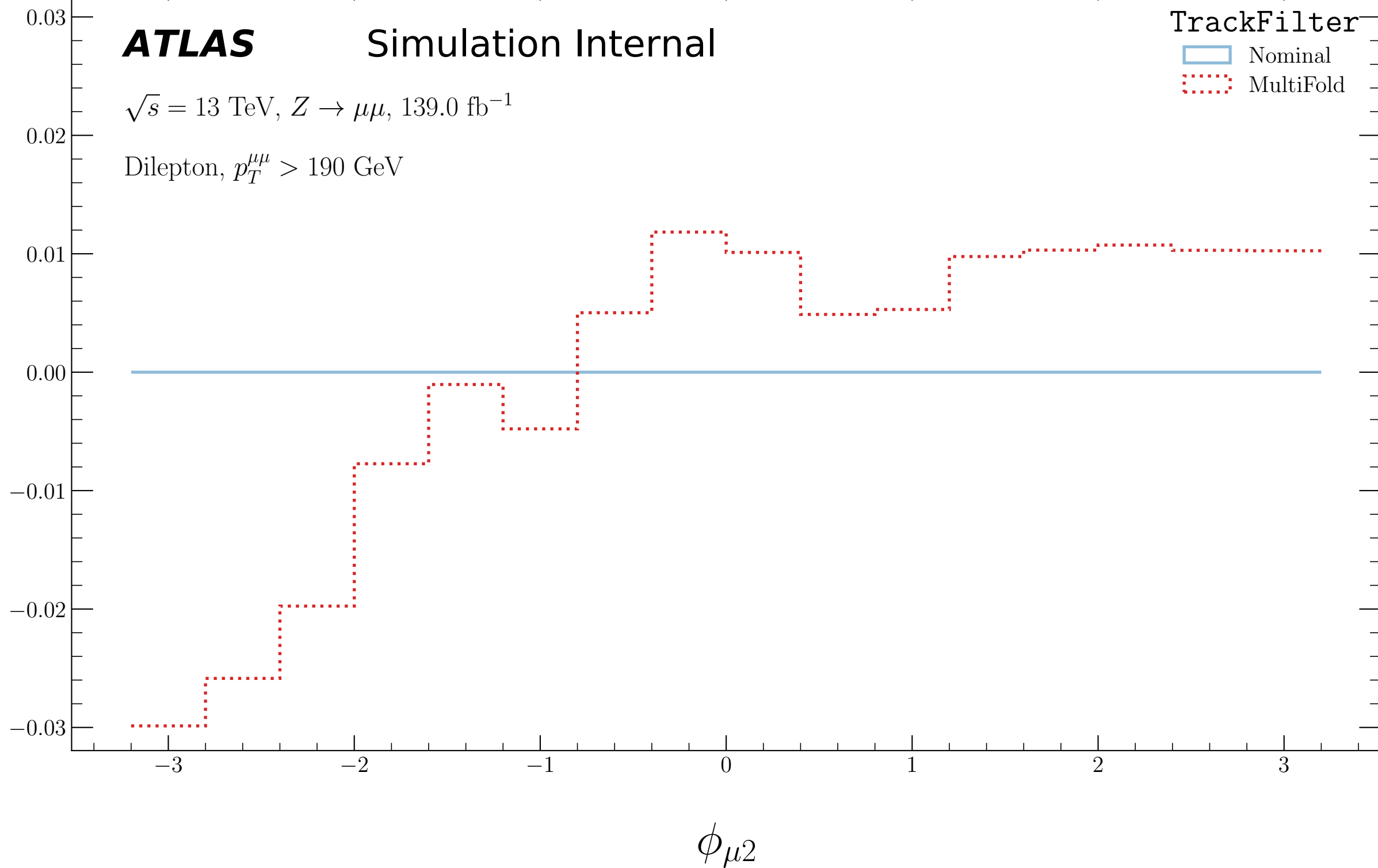


ATLAS

Simulation Internal

 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

TrackFilter

Nominal
MultiFold

Relative Systematic Effect (MultiFold)

ATLAS

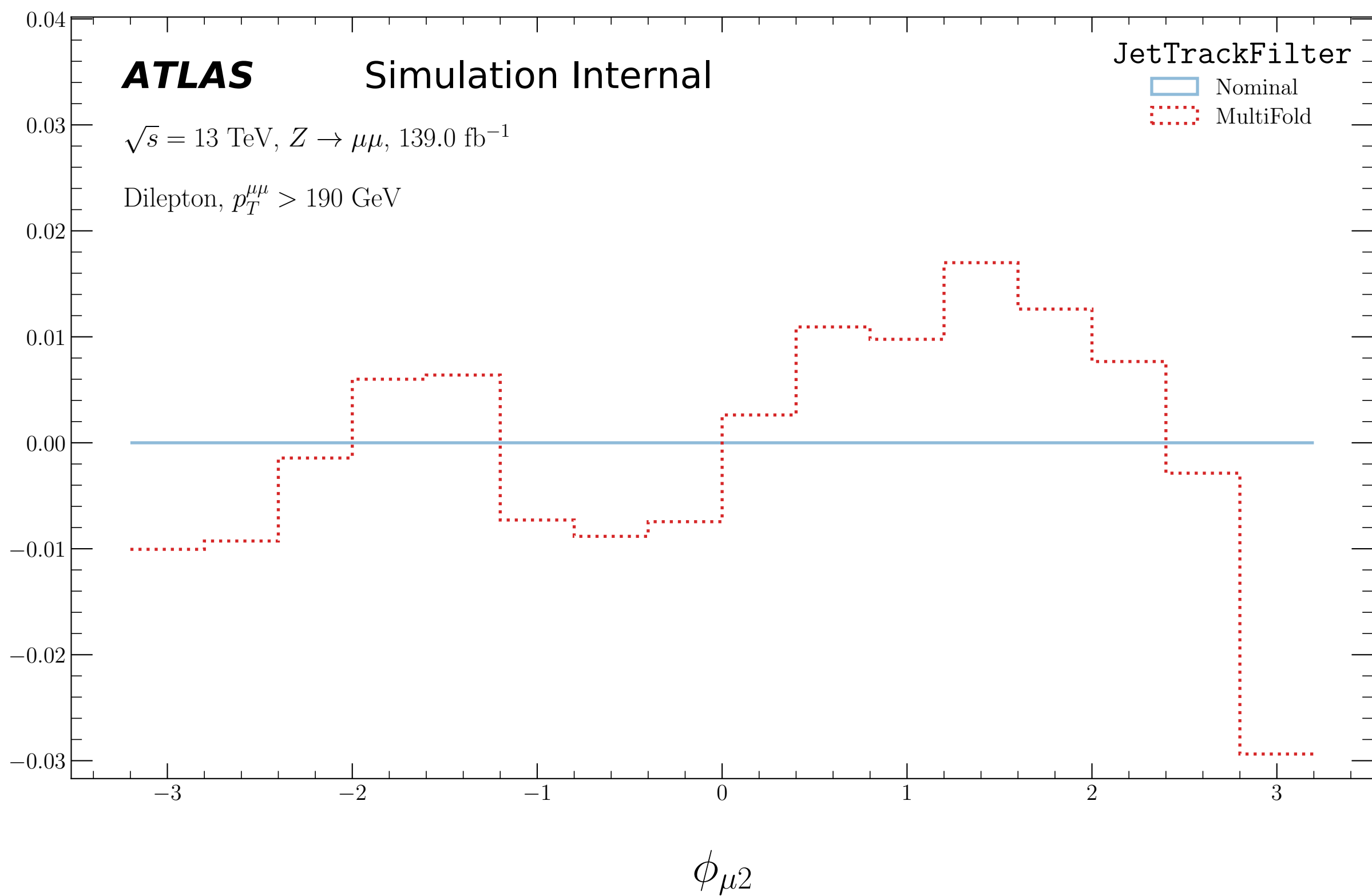
Simulation Internal

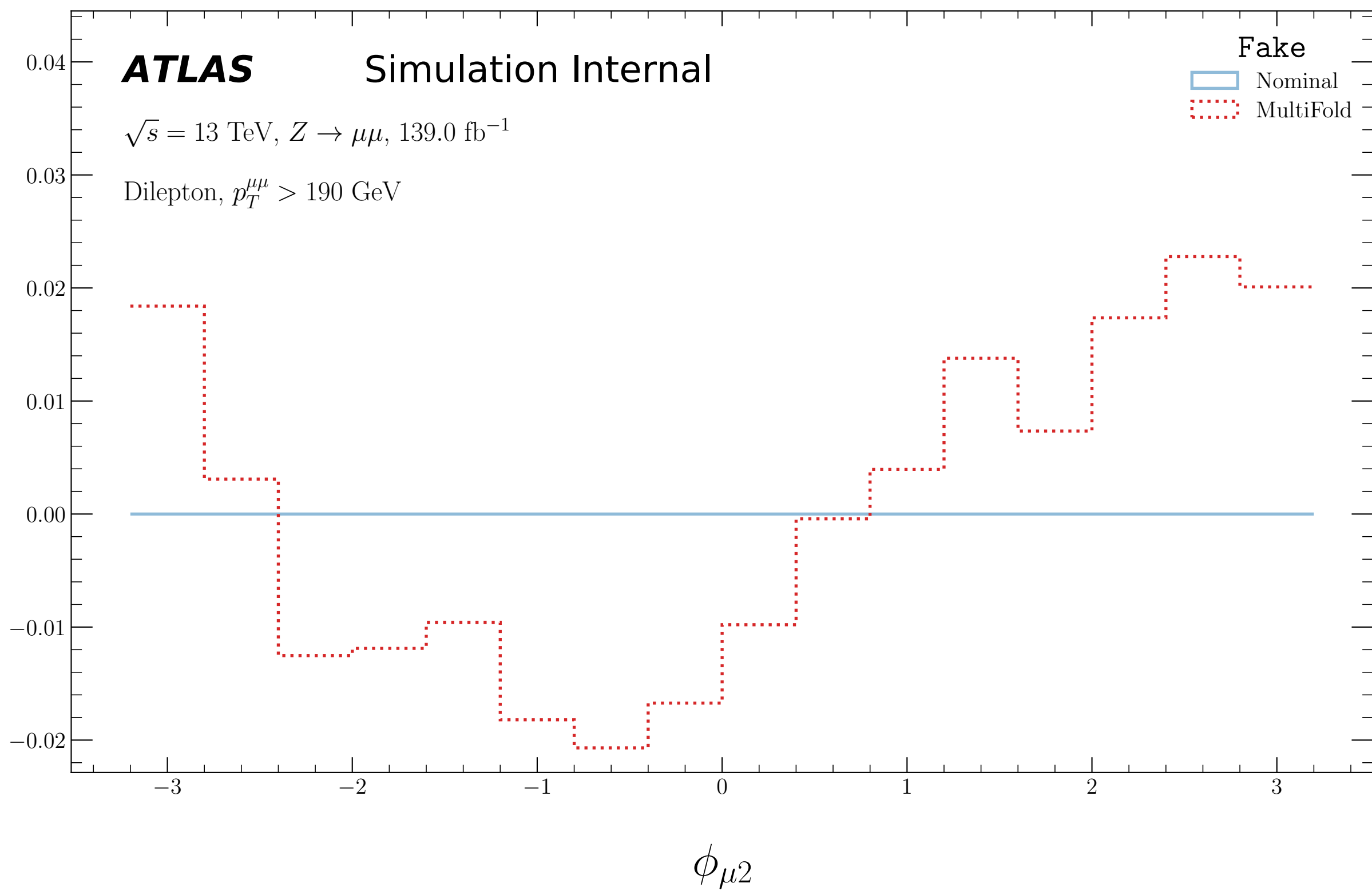
$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

JetTrackFilter

Nominal
MultiFold





Relative Systematic Effect (MultiFold)

ATLAS

Simulation Internal

$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

pTScale

Nominal
MultiFold

0.04
0.03
0.02
0.01
0.00
-0.01

-3

-2

-1

0

1

2

3

$\phi_{\mu 2}$

