

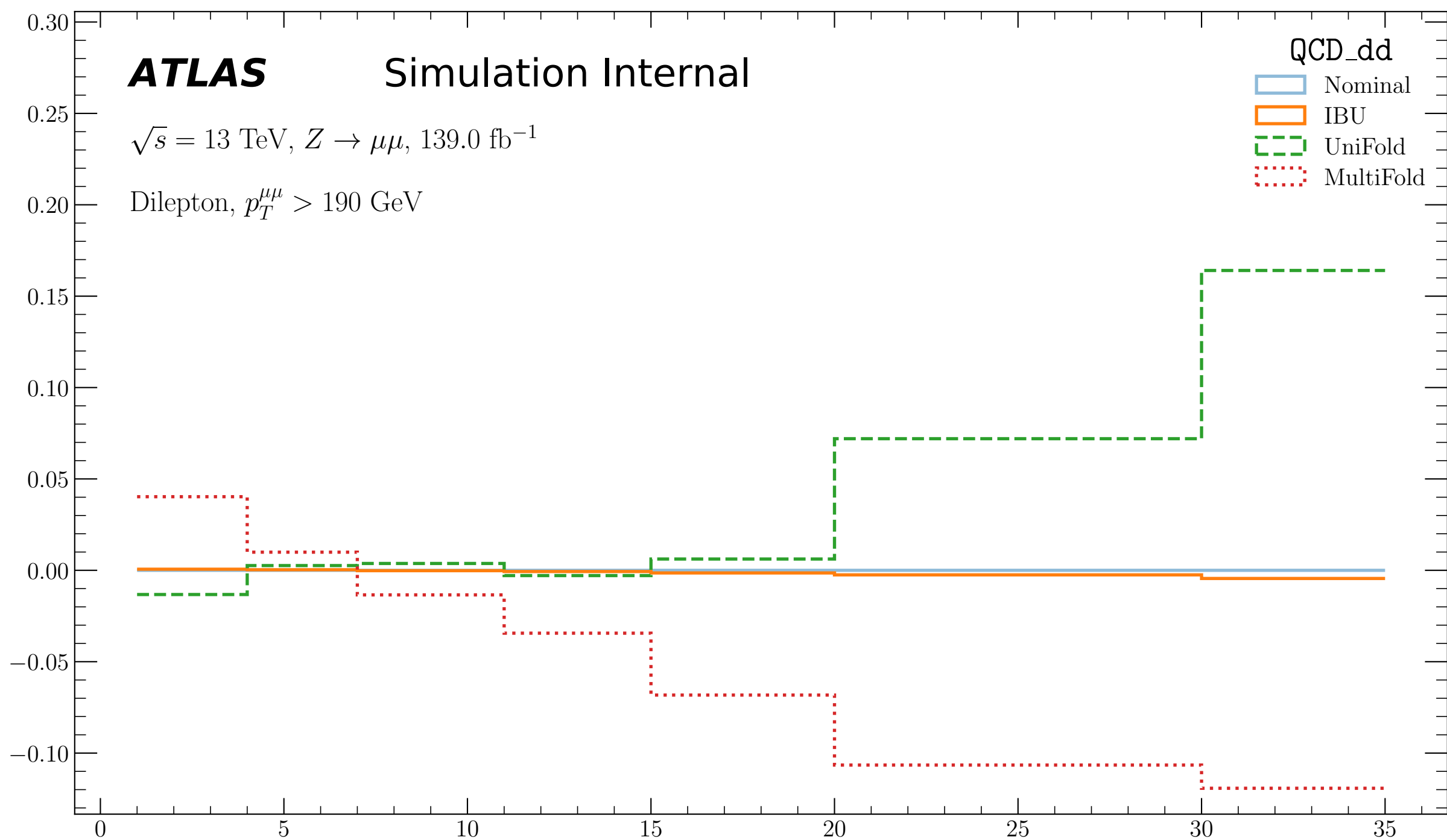
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet n_{ch}

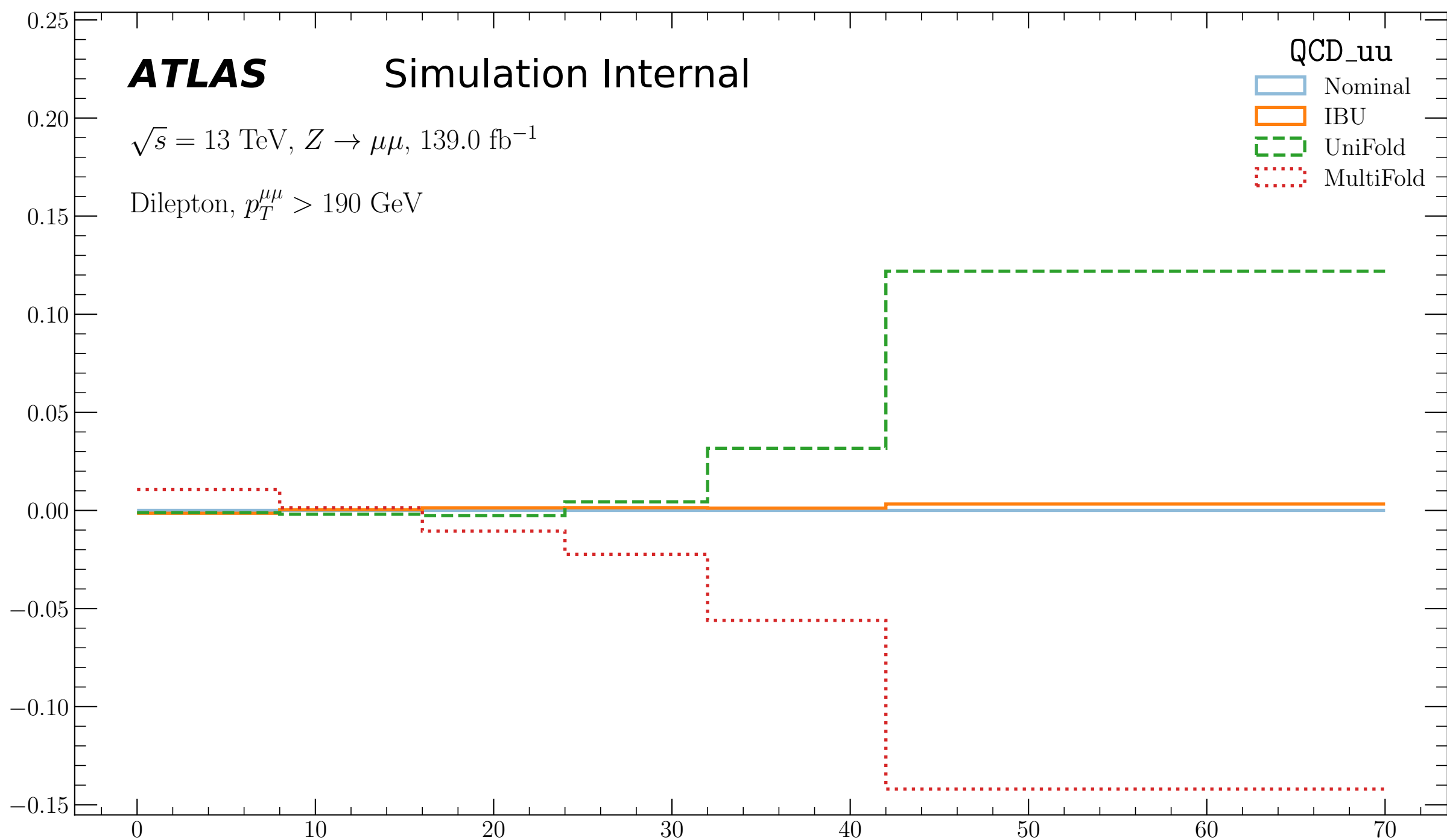
ATLAS

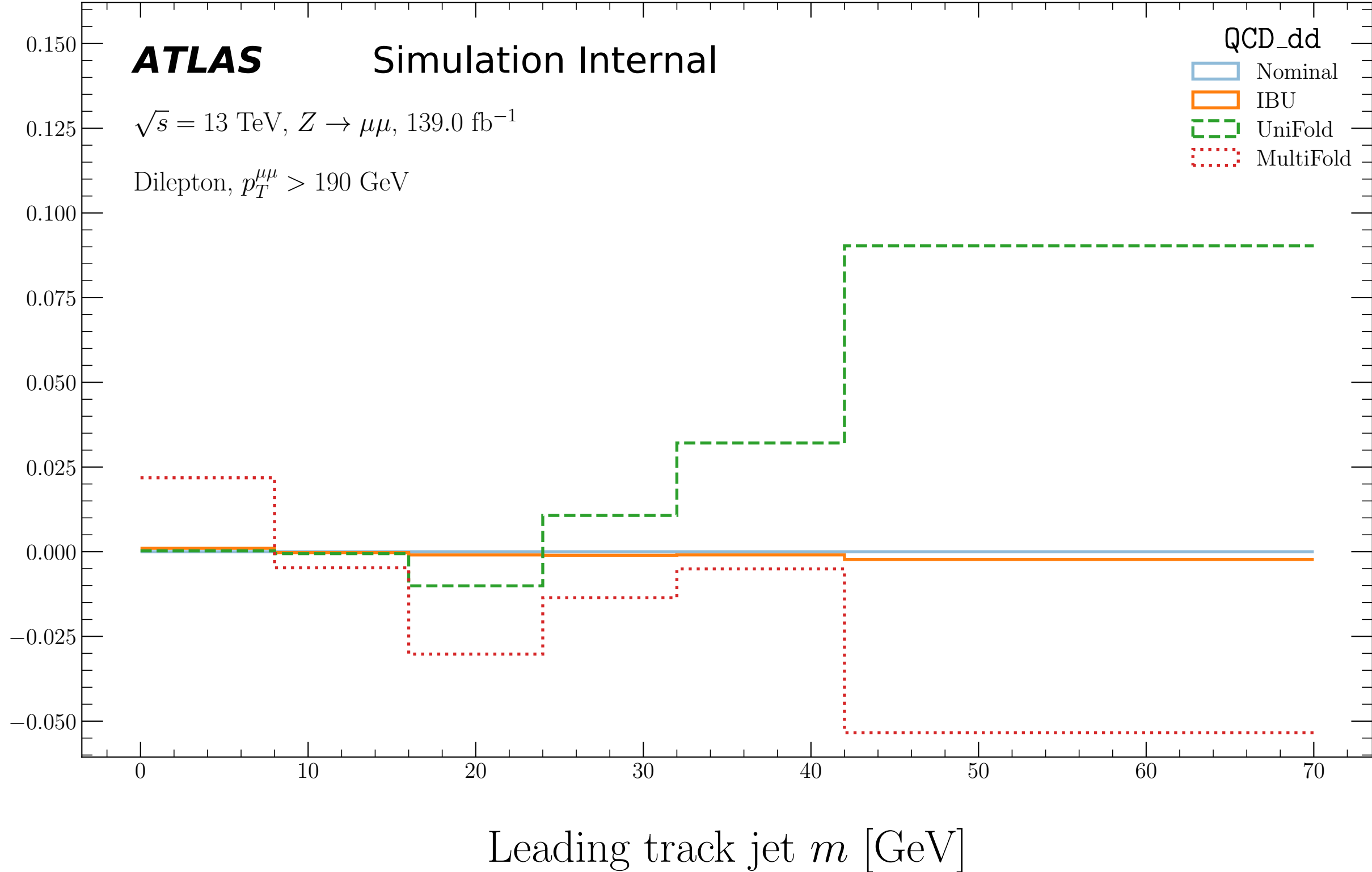
Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet m [GeV]



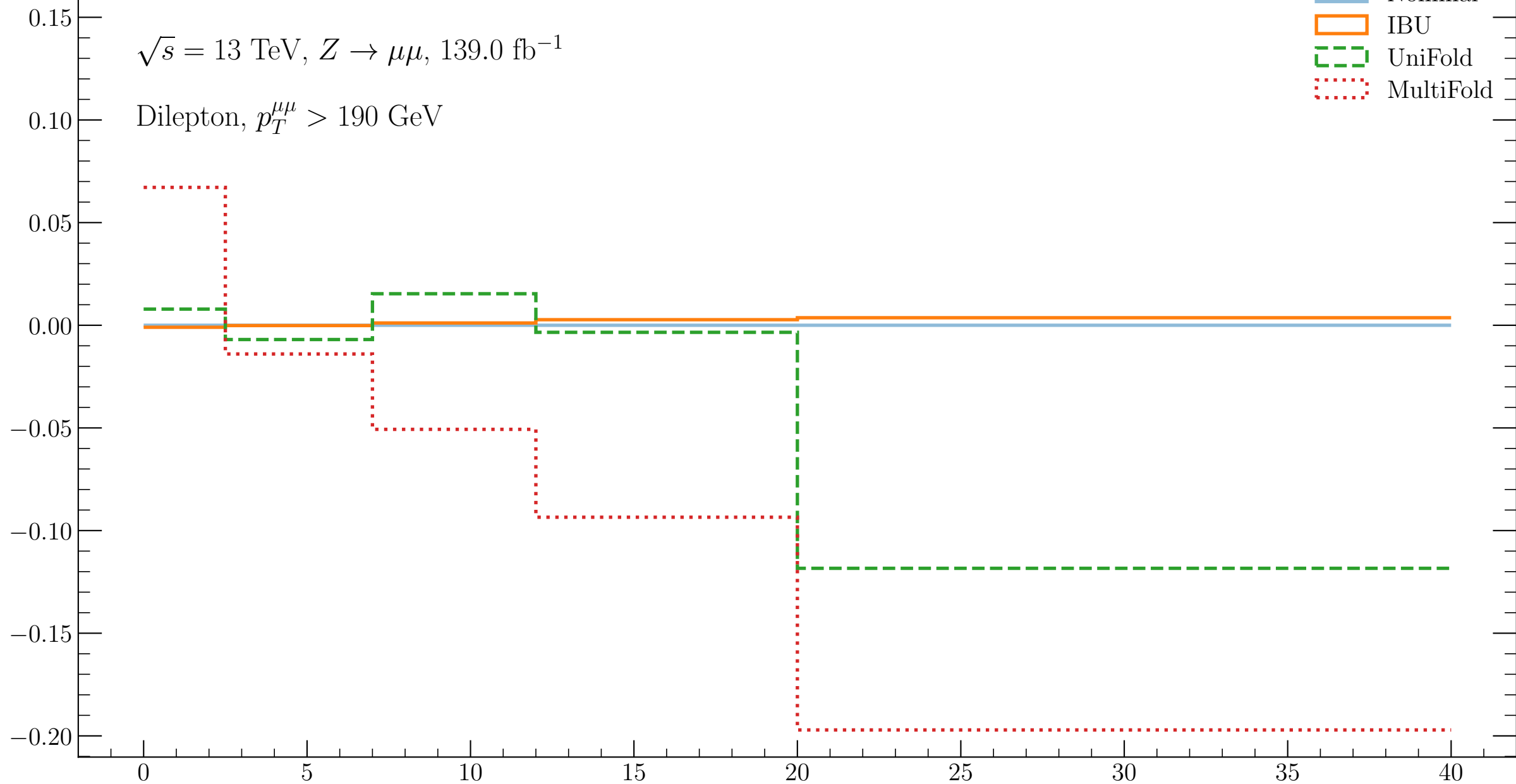
ATLAS

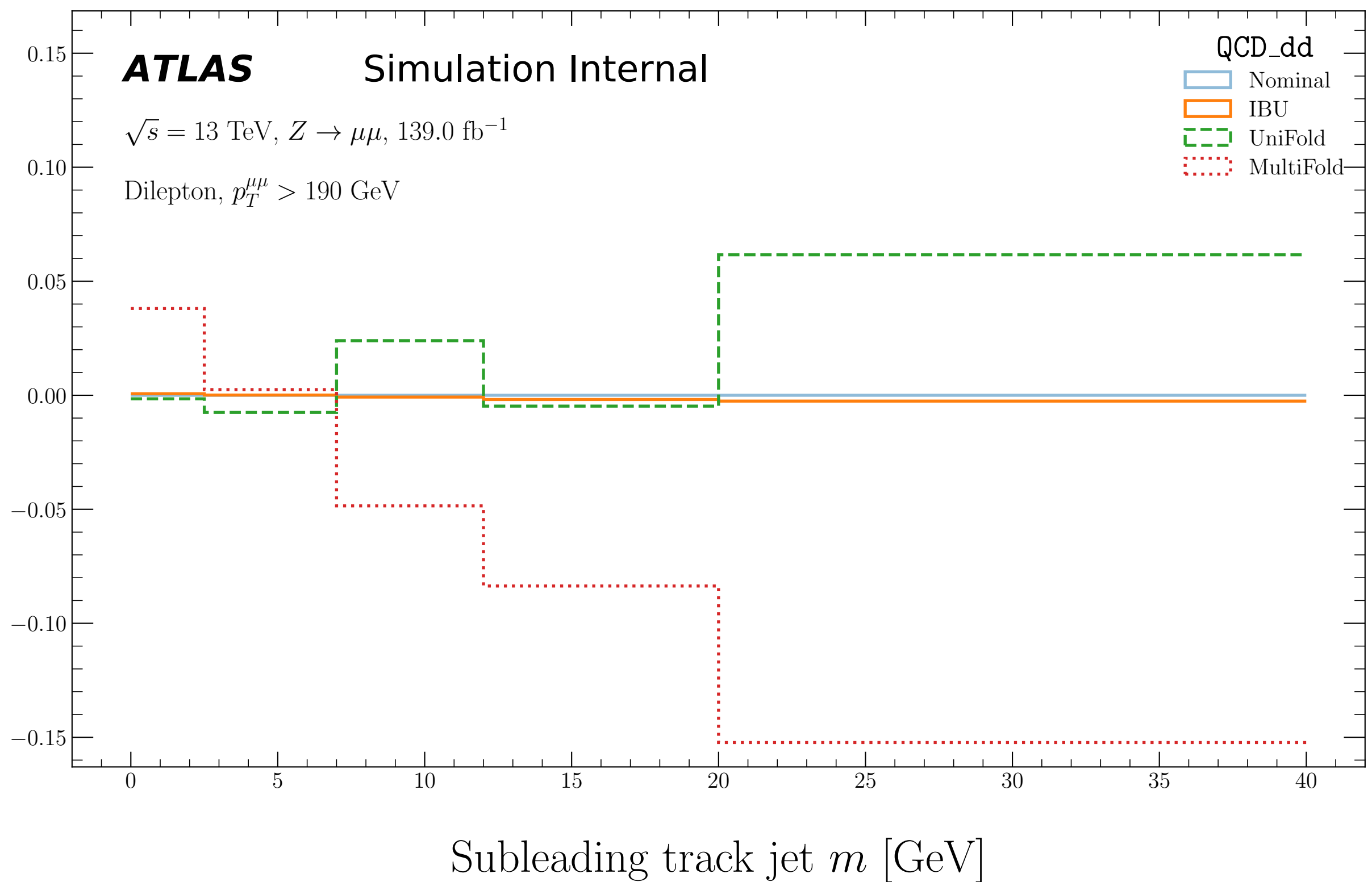
Simulation Internal

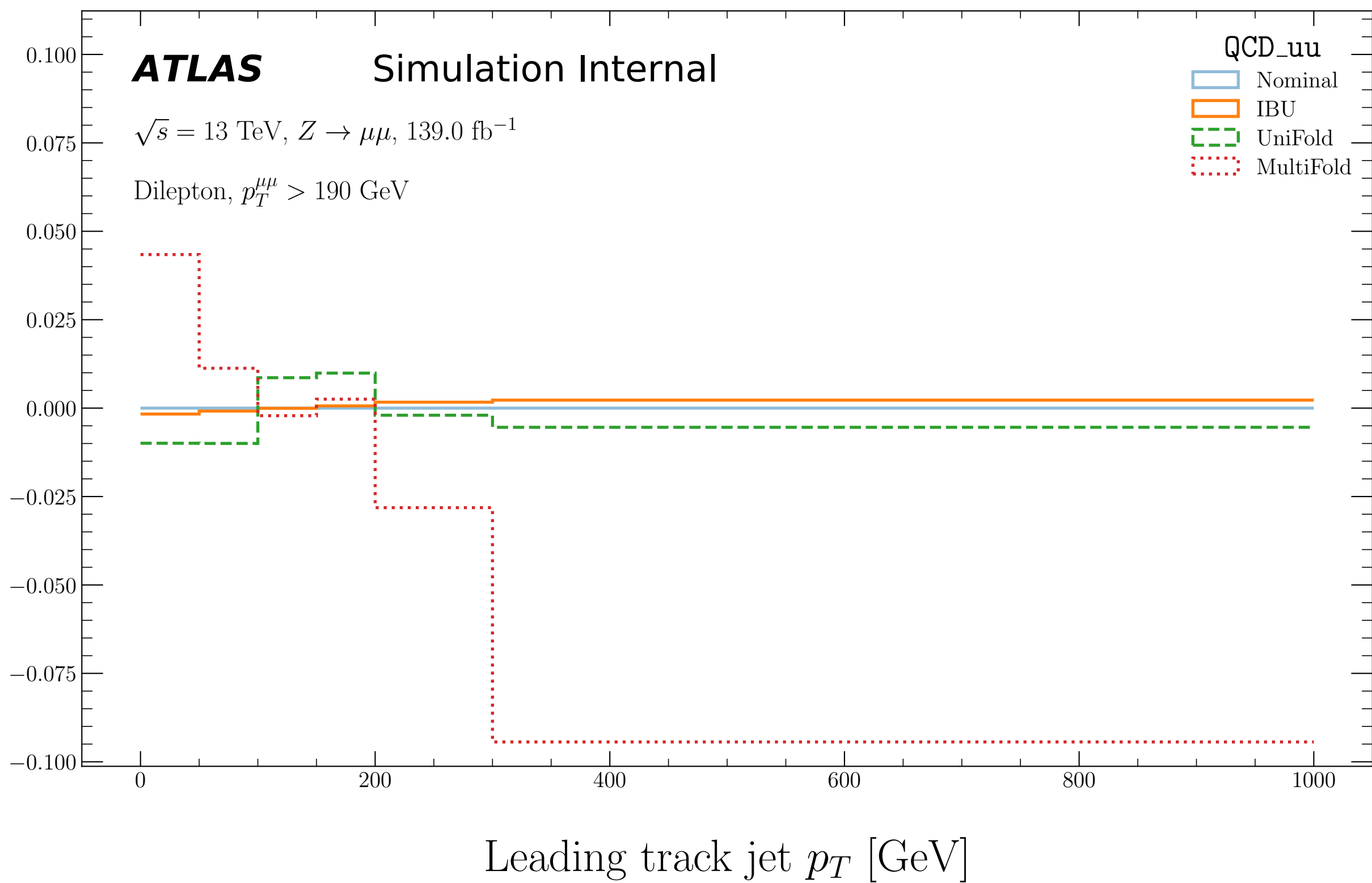
 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet m [GeV]





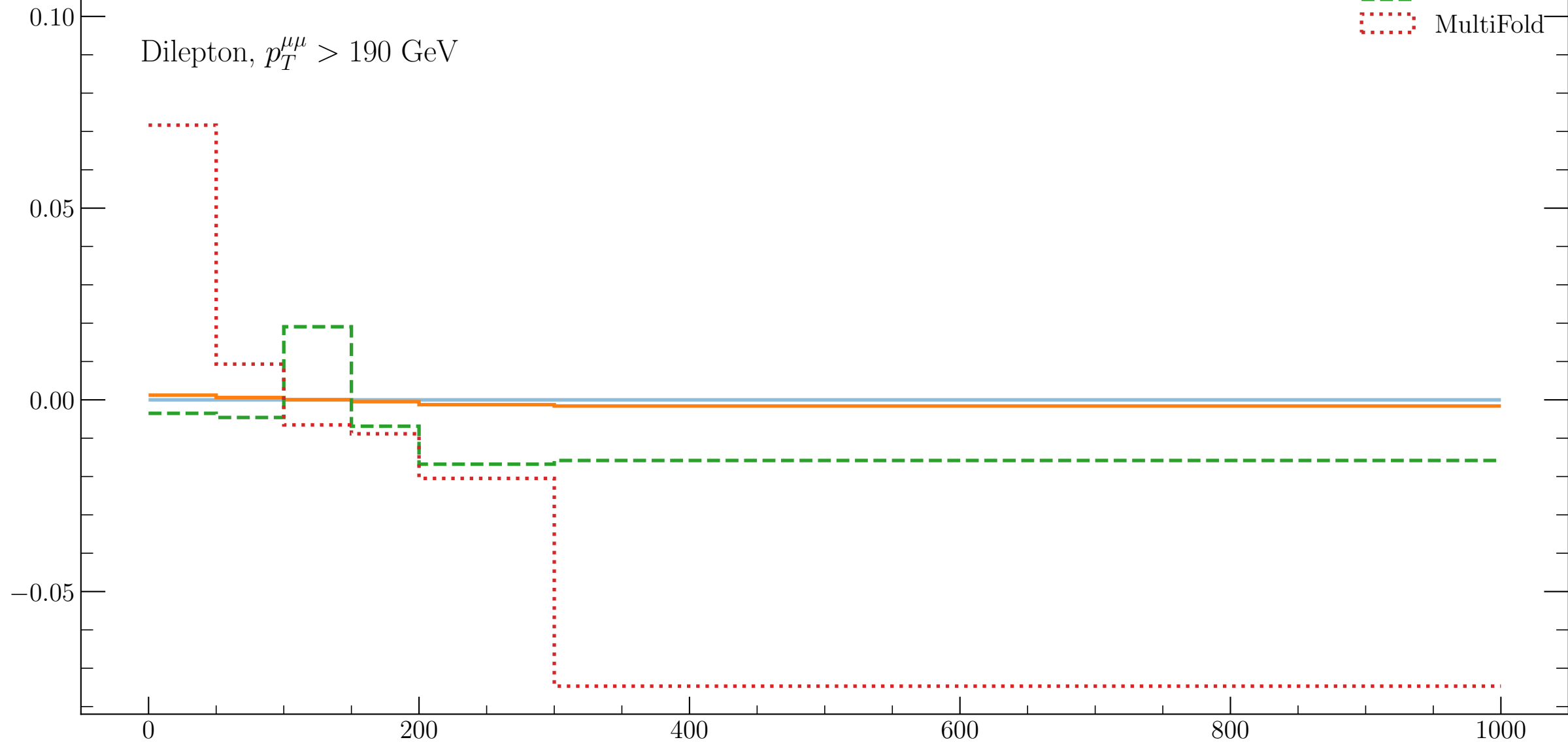
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet p_T [GeV]

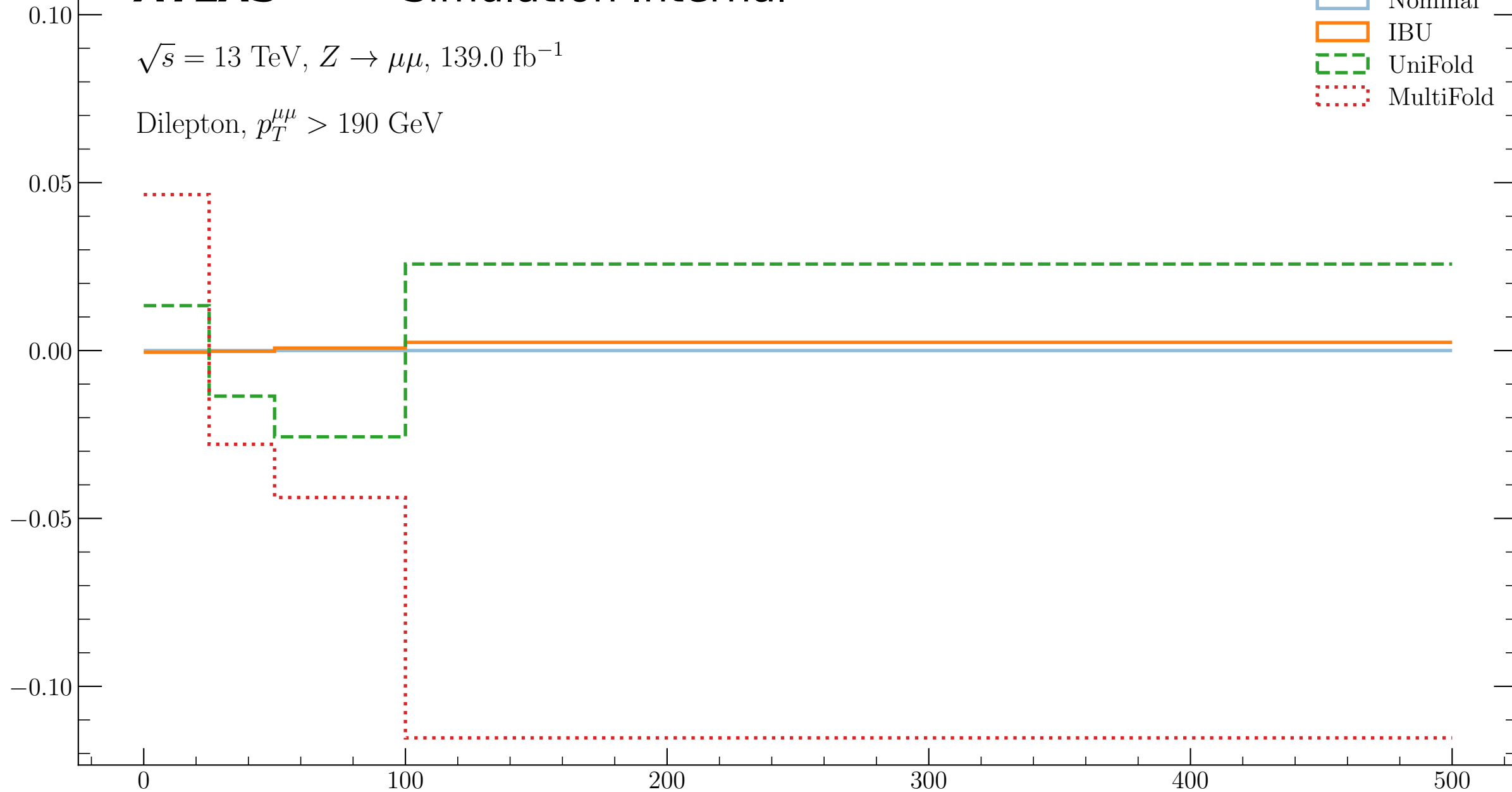
ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet p_T [GeV]

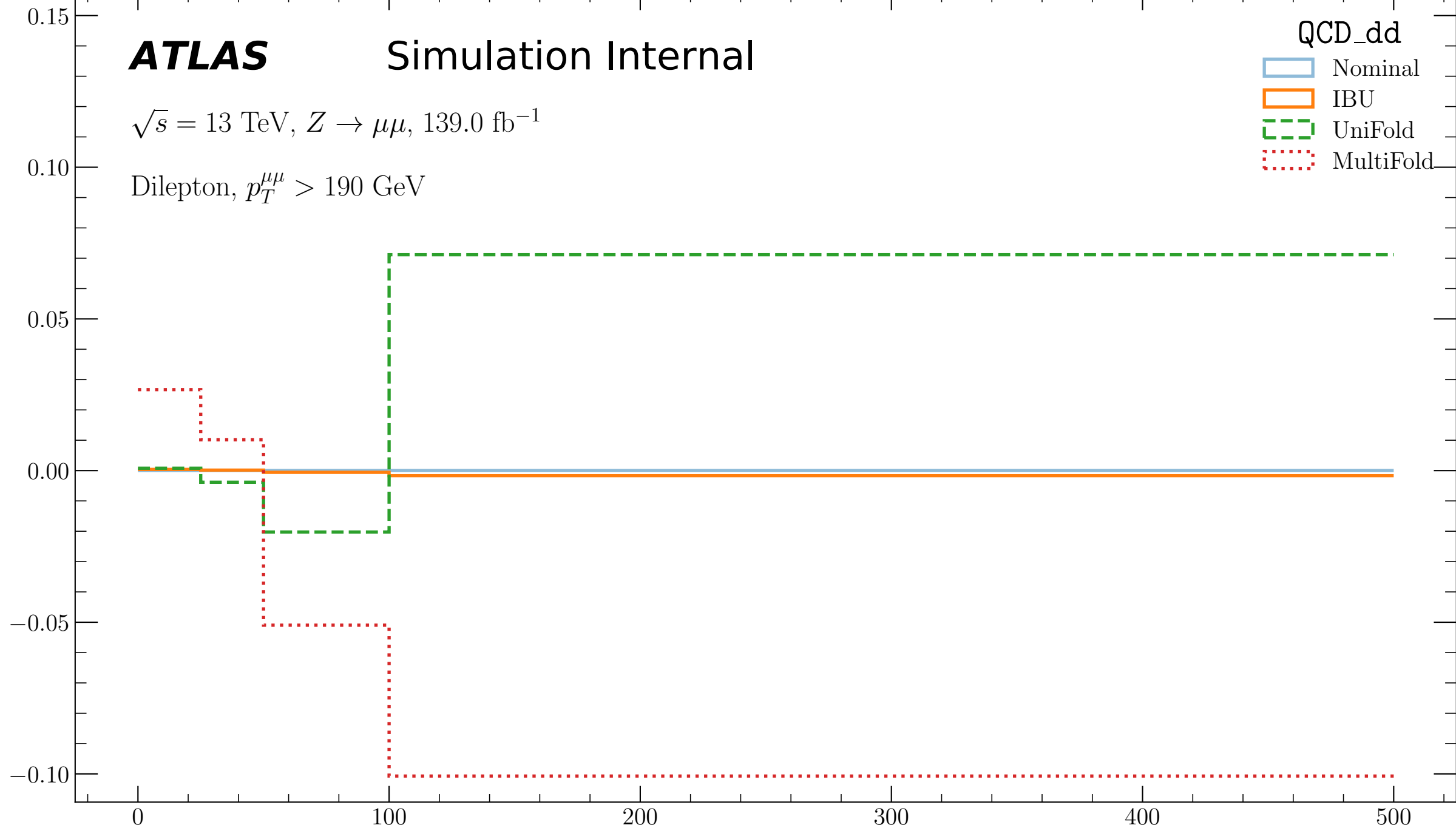
ATLAS

Simulation Internal

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

QCD_dd

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

0.06
0.04
0.02
0.00
-0.02

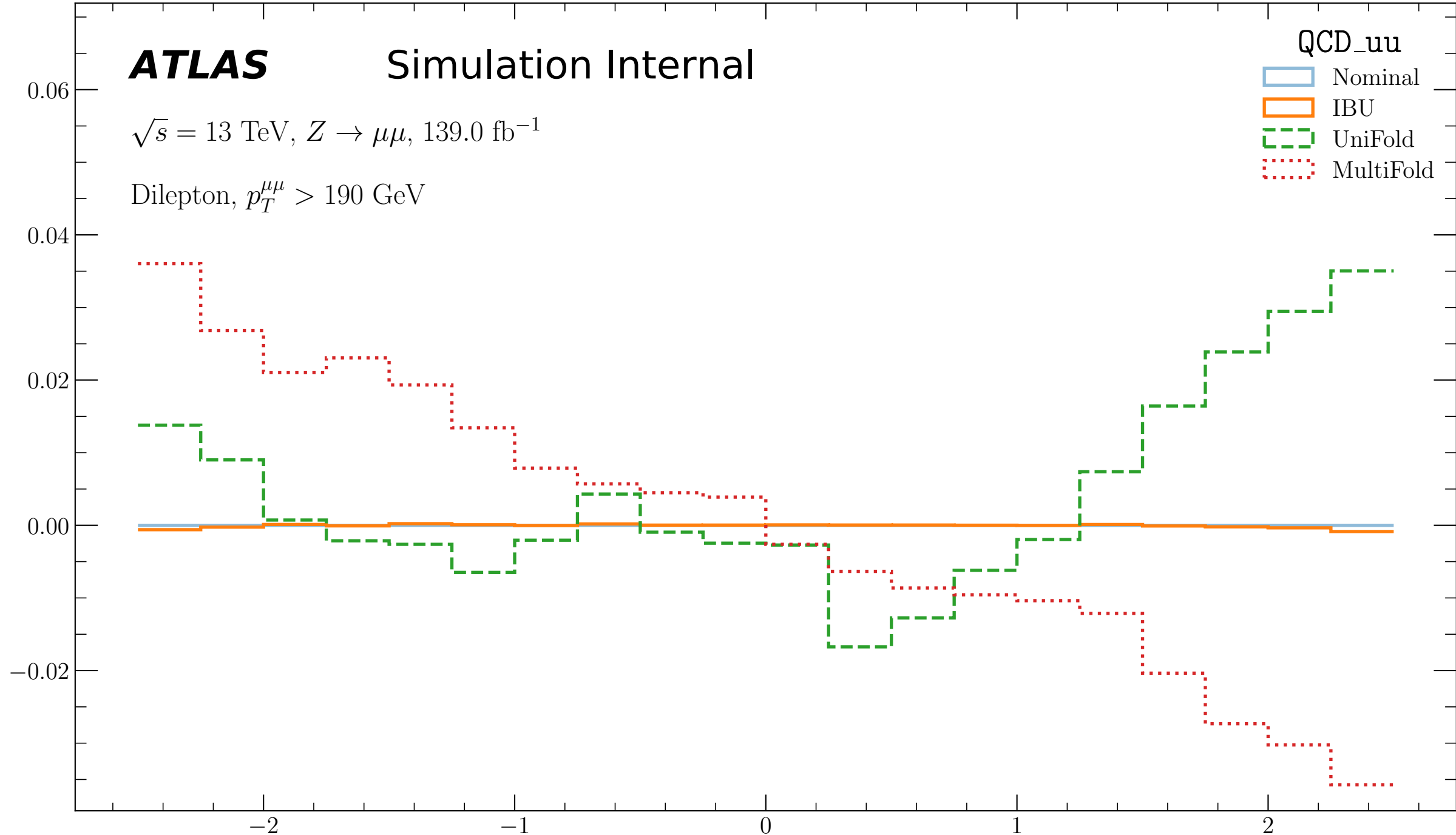
-2

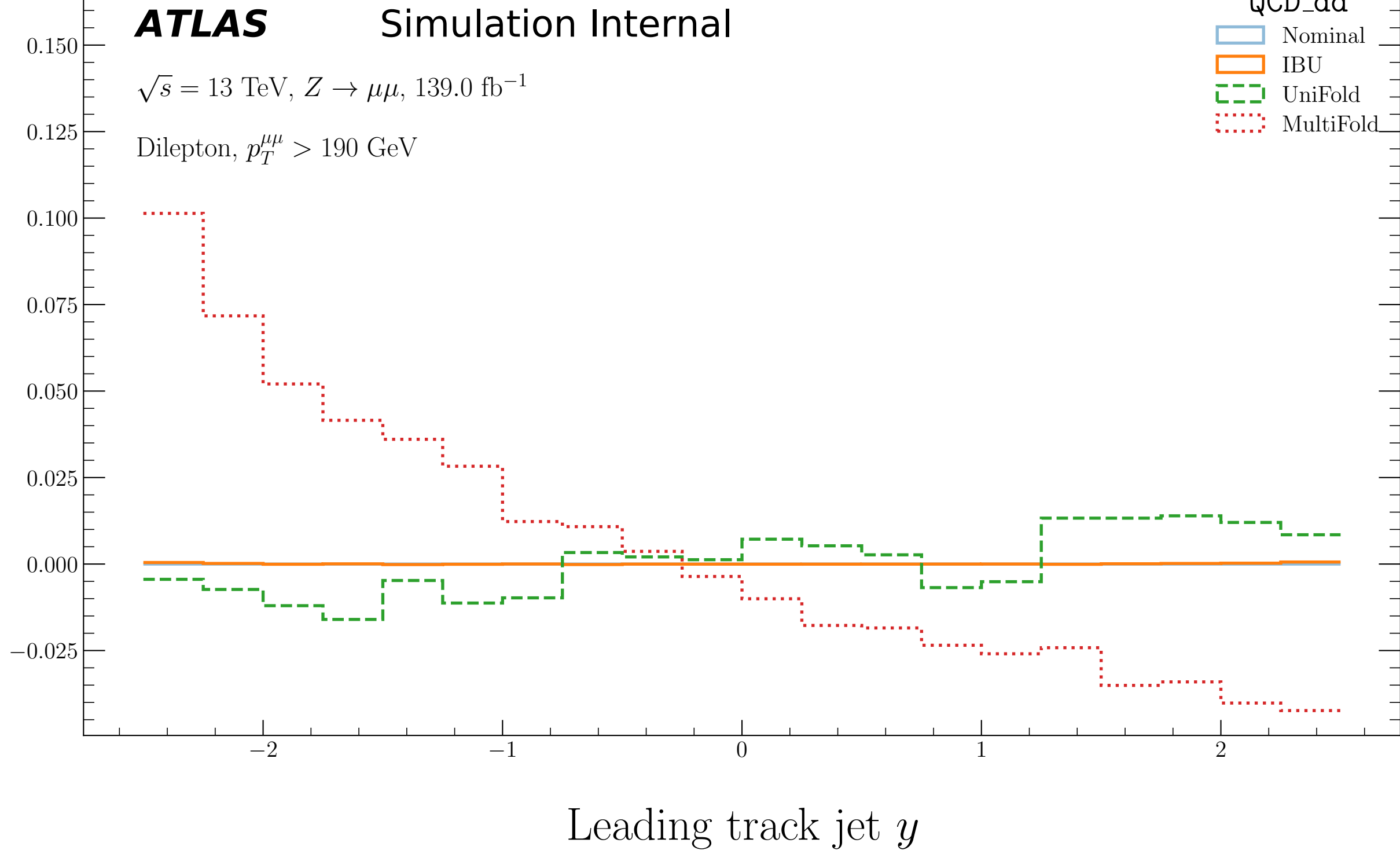
-1

0

1

2

Leading track jet y 



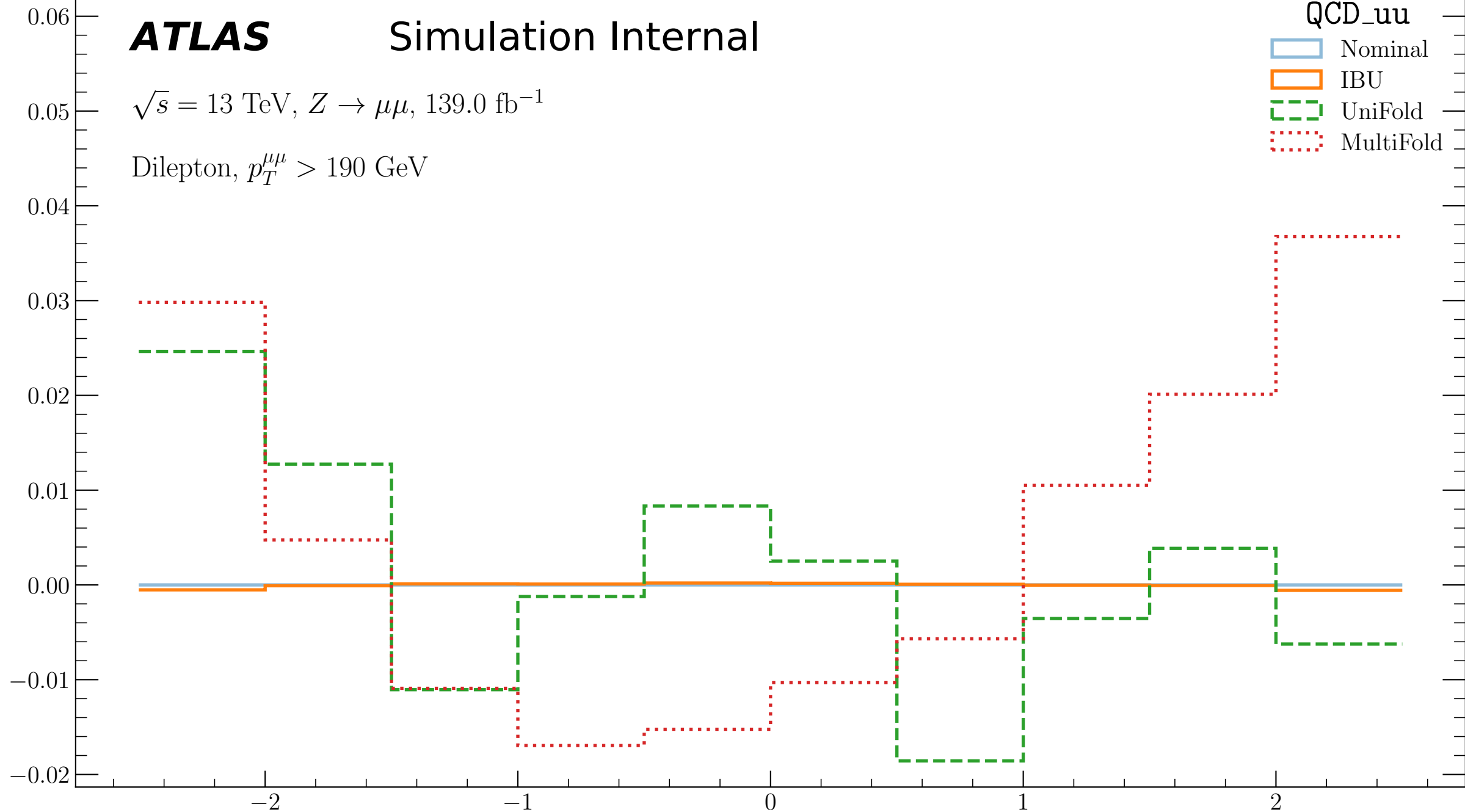
ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet y

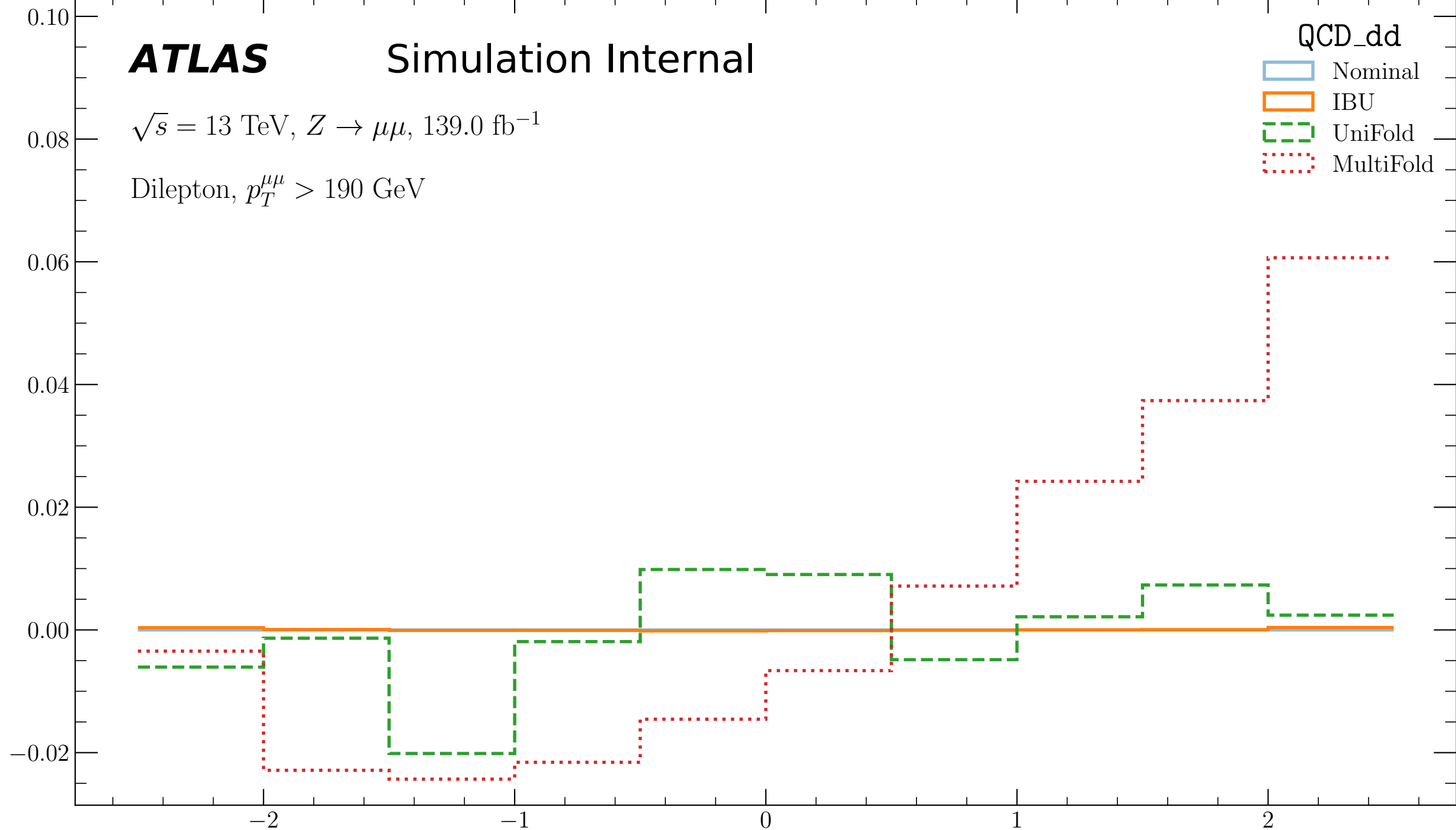
ATLAS

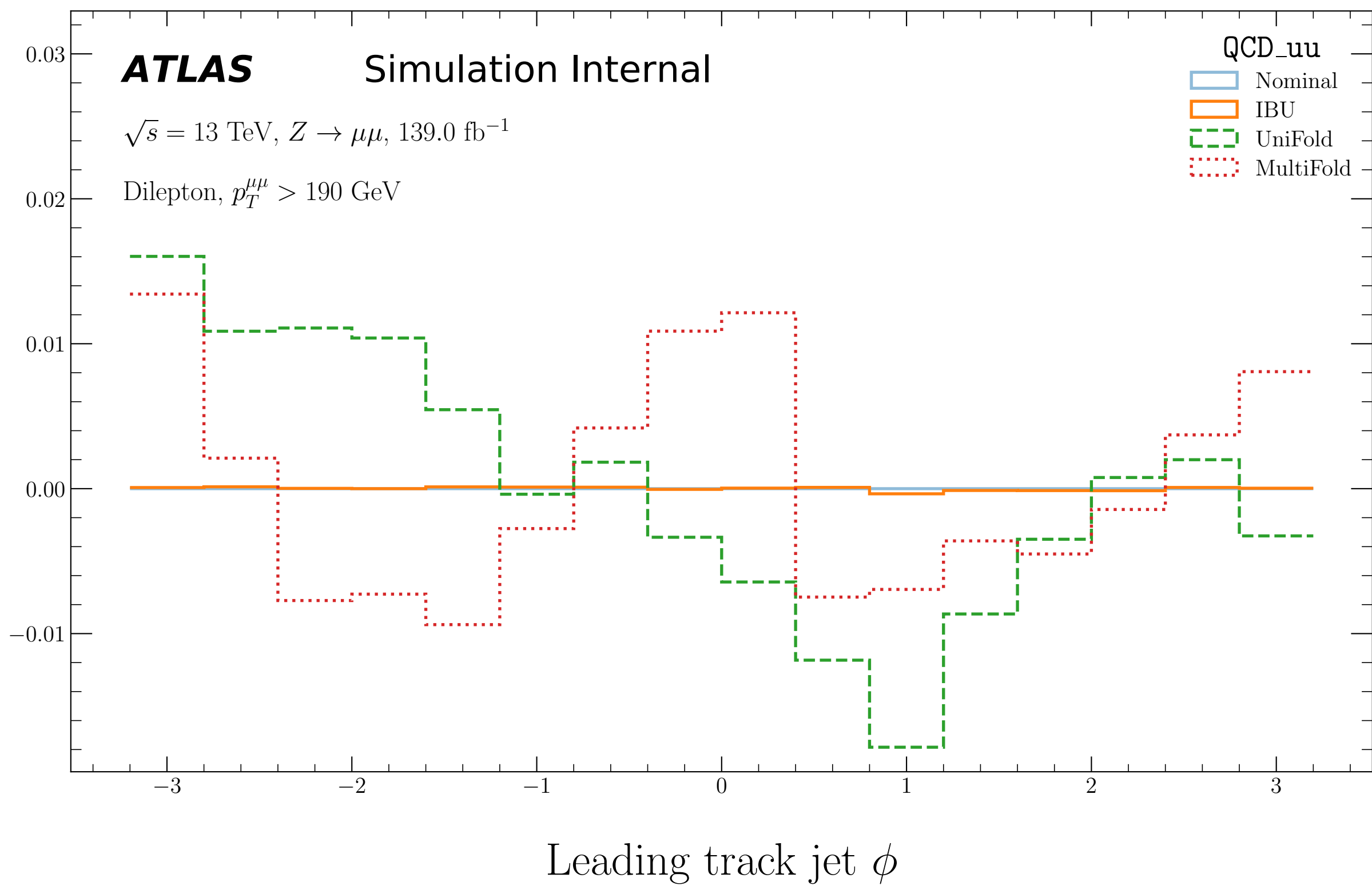
Simulation Internal

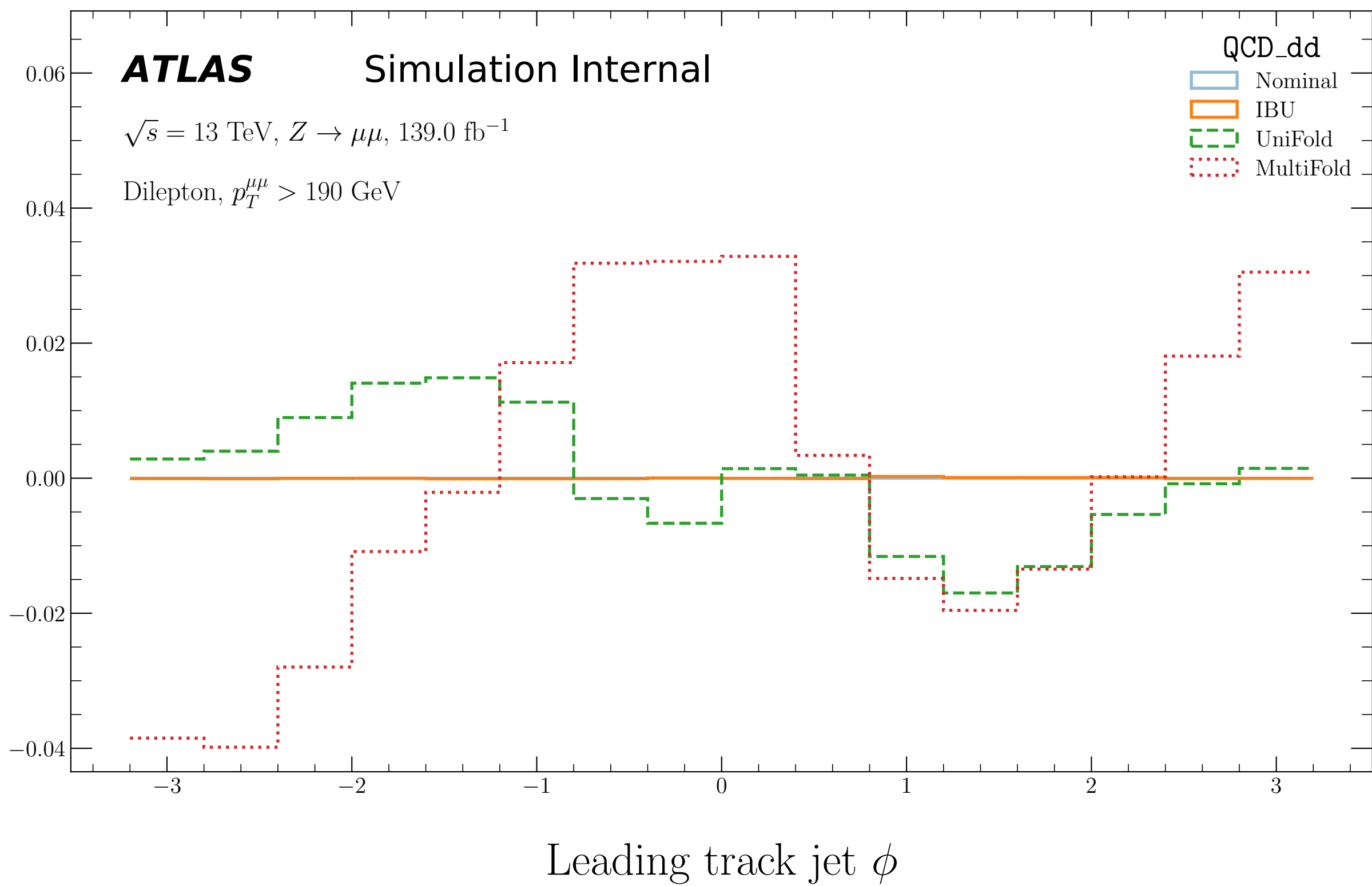
 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet y





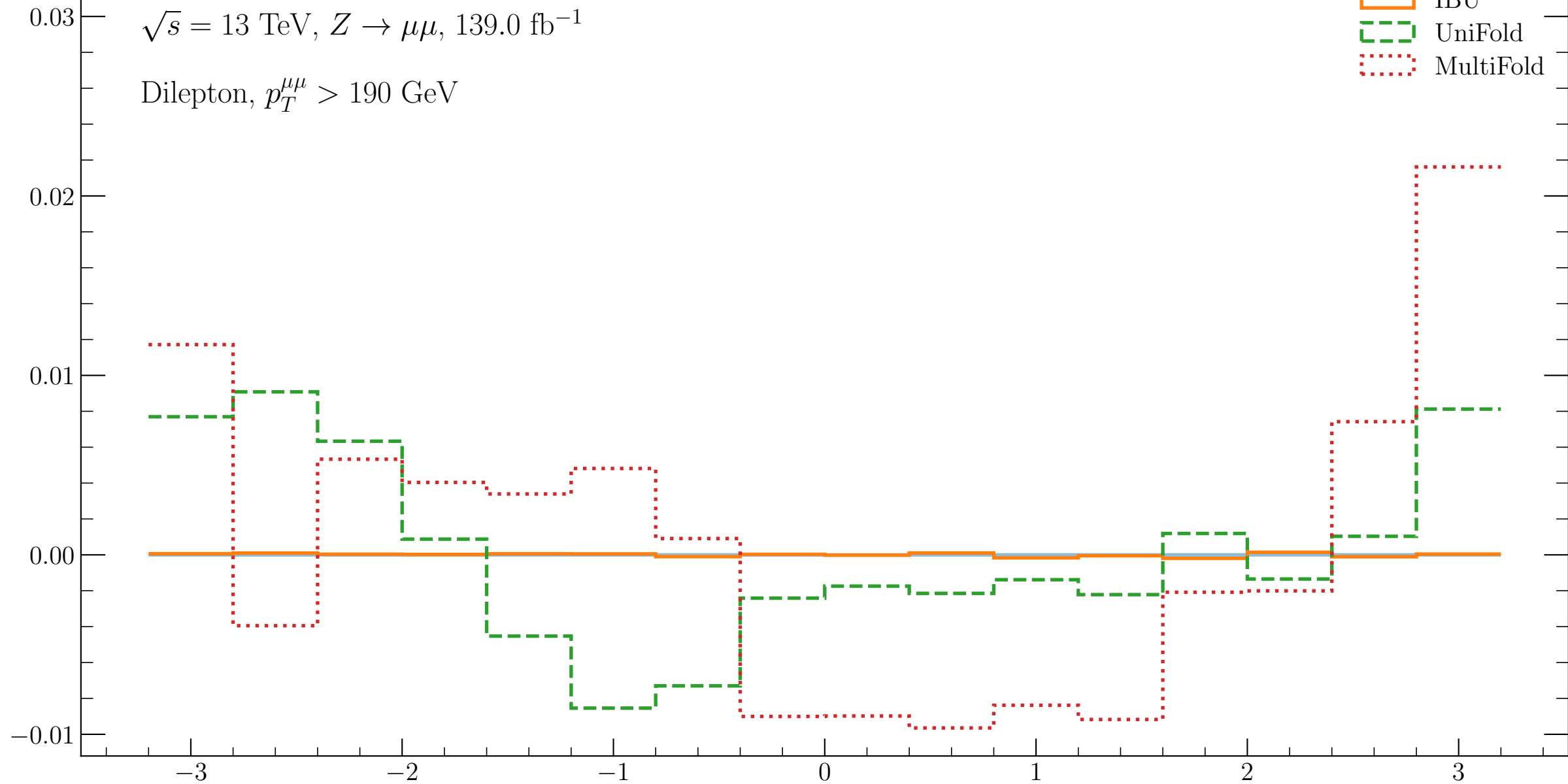
ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet ϕ

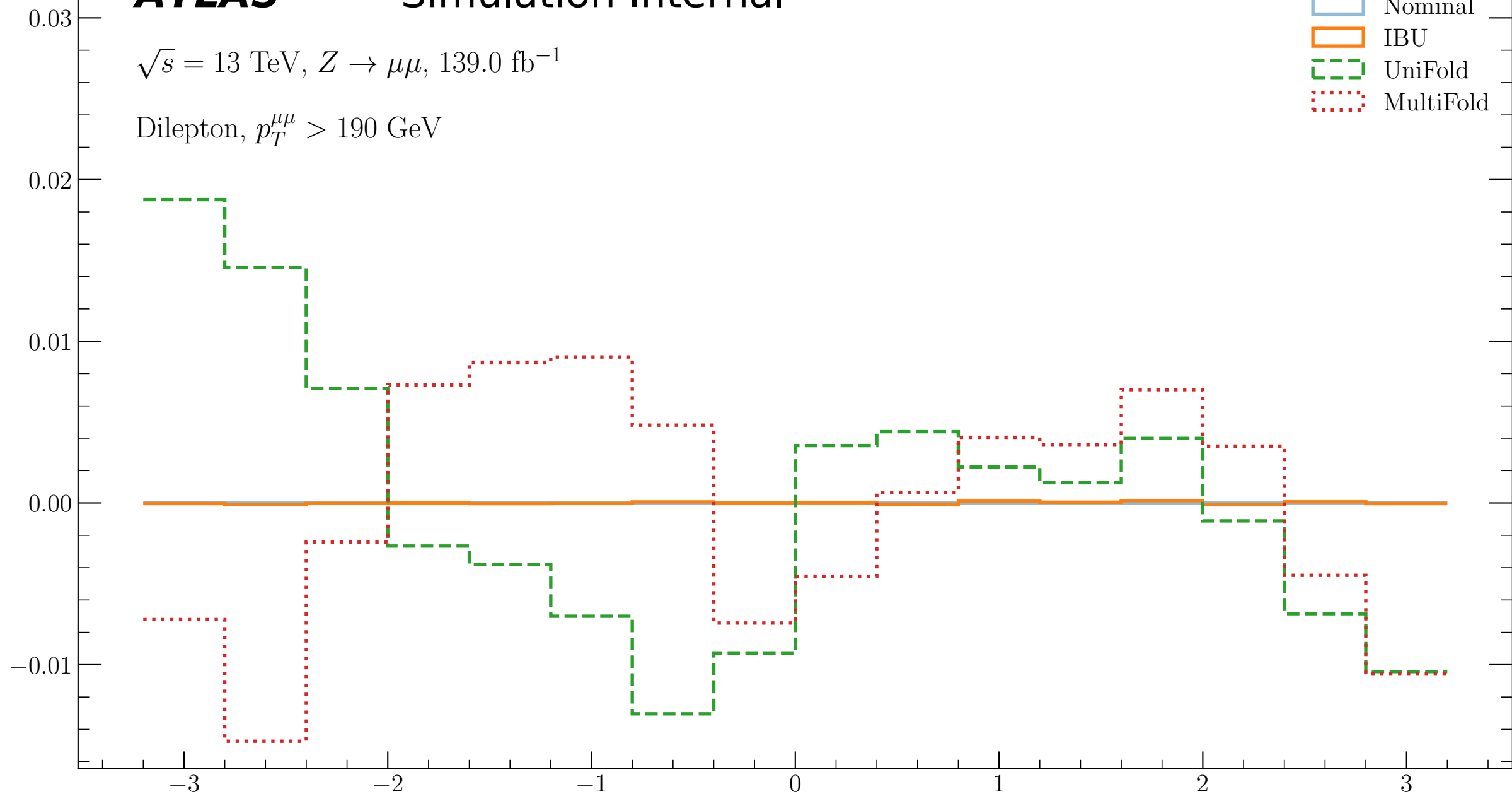
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet ϕ

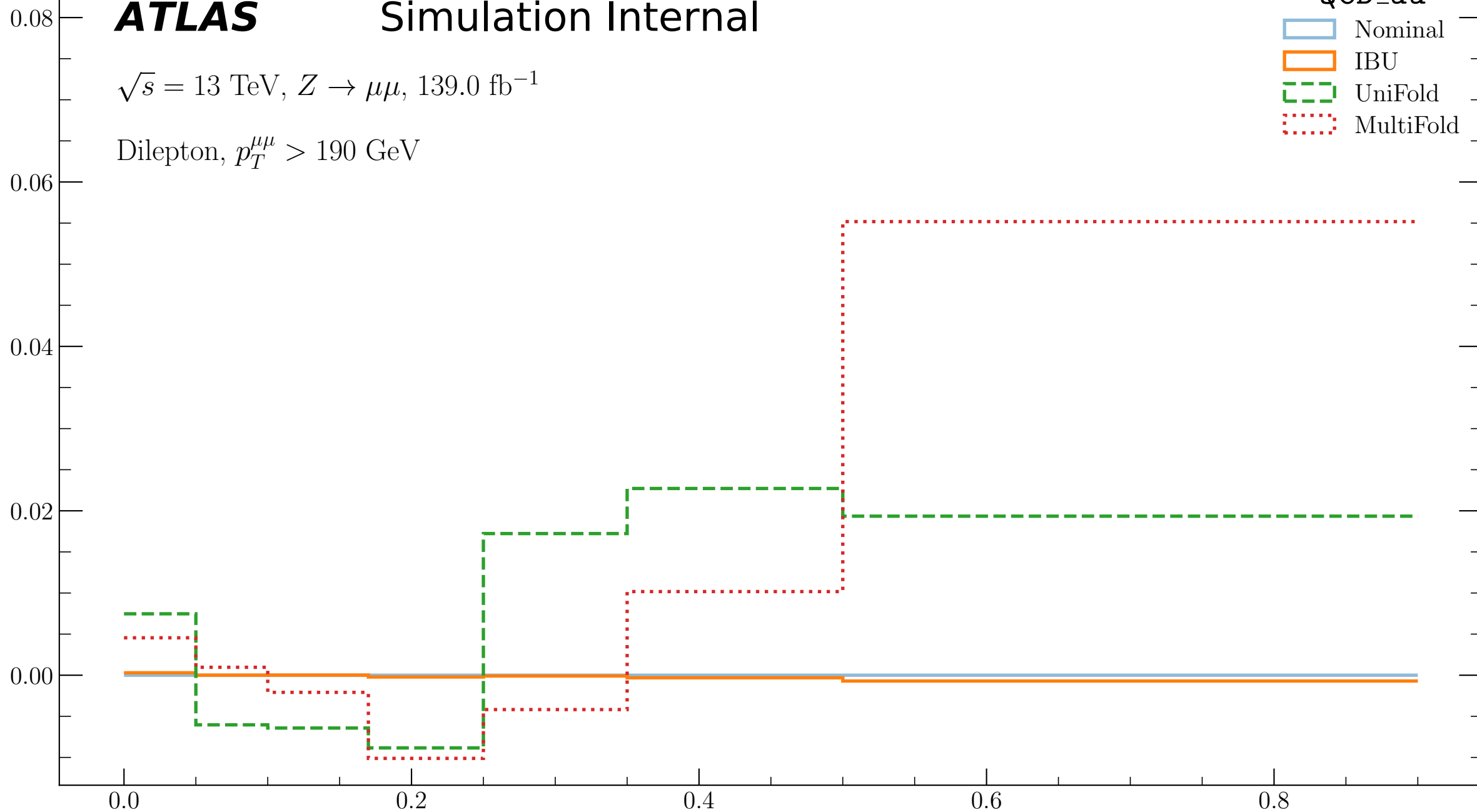
ATLAS

Simulation Internal

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

QCD_uu

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

0.12
0.10
0.08
0.06
0.04
0.02
0.00

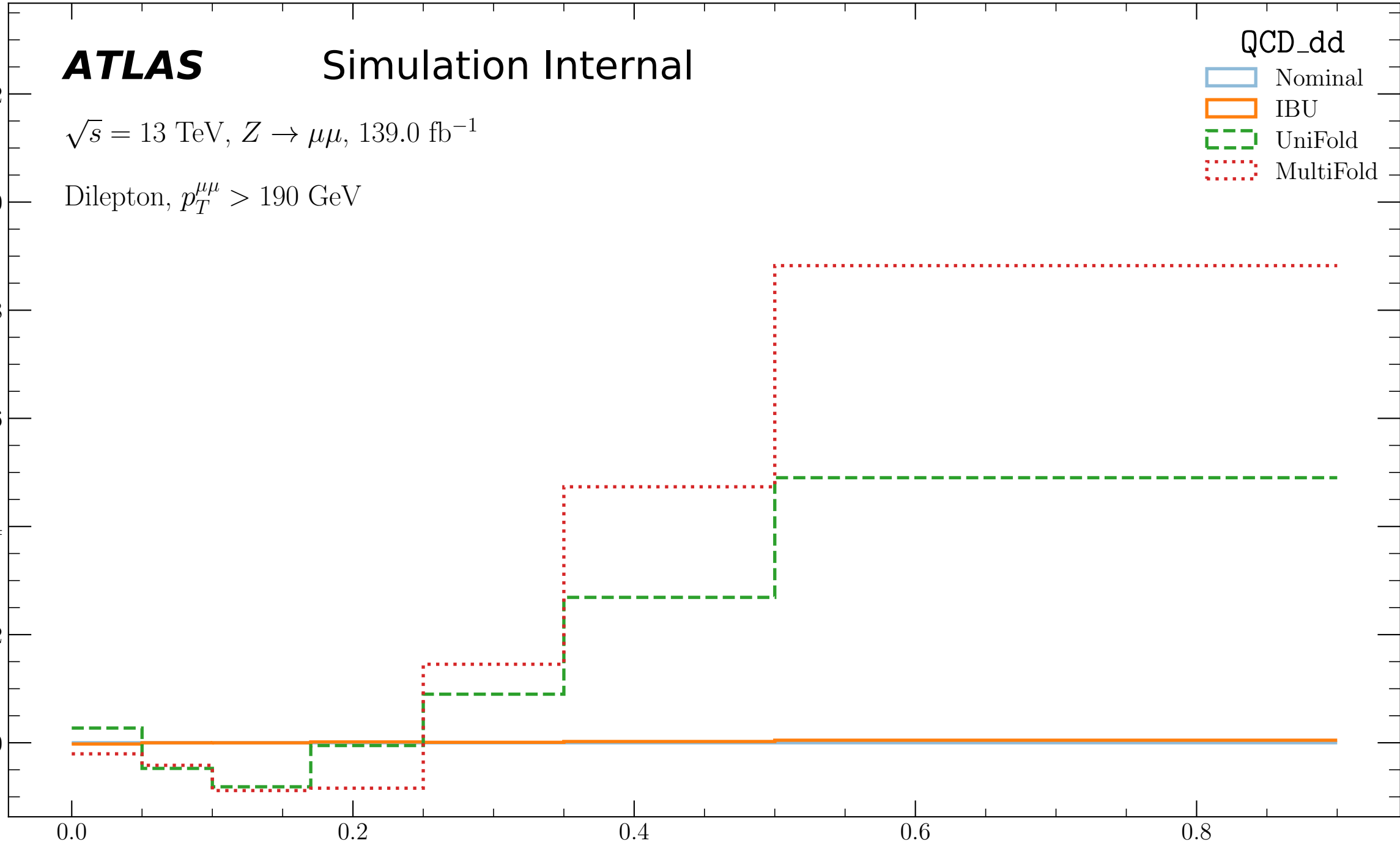
0.0

0.2

0.4

0.6

0.8

Leading track jet τ_1 

ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

0.150
0.125
0.100
0.075
0.050
0.025
0.000
-0.025

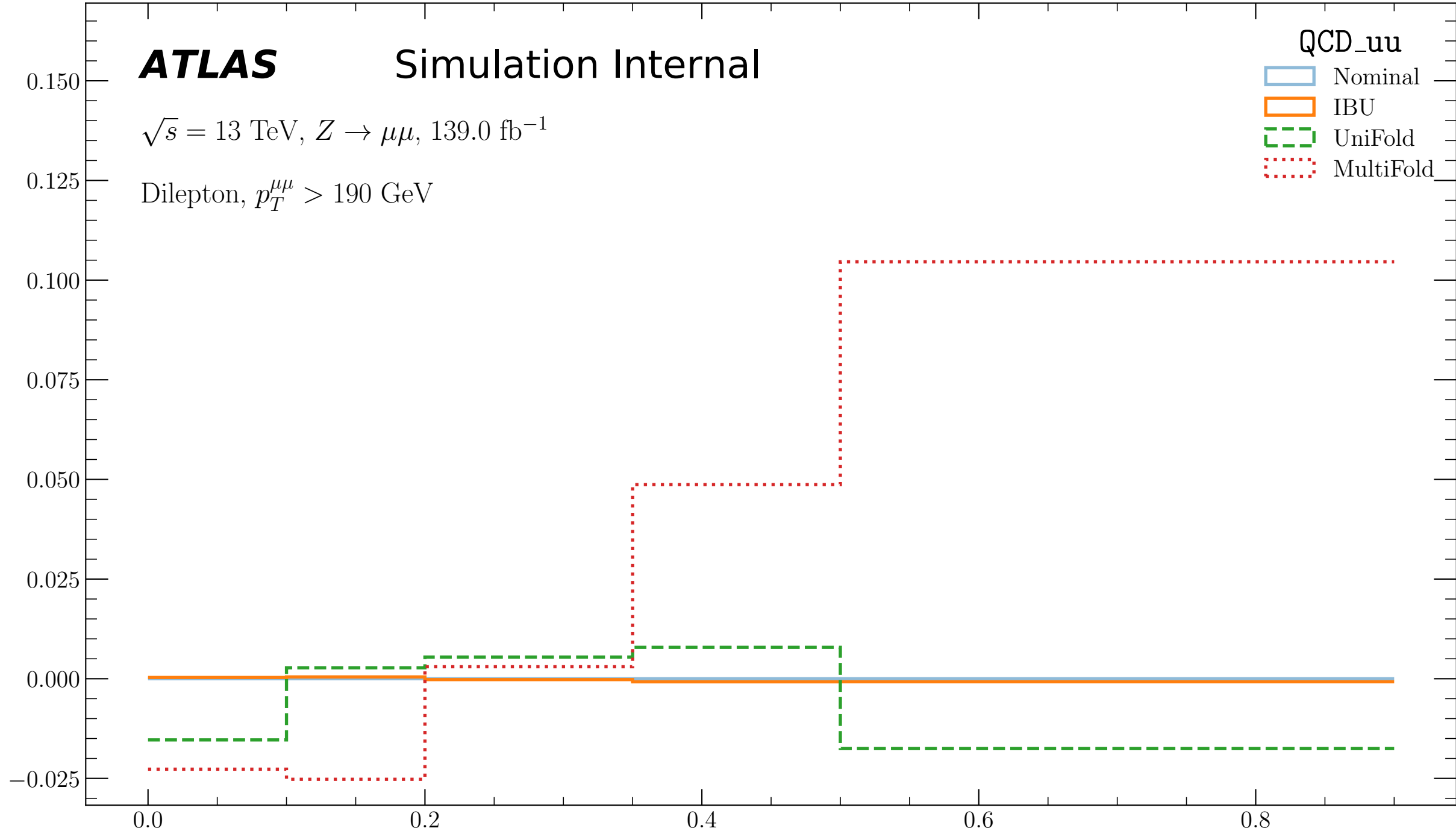
0.0

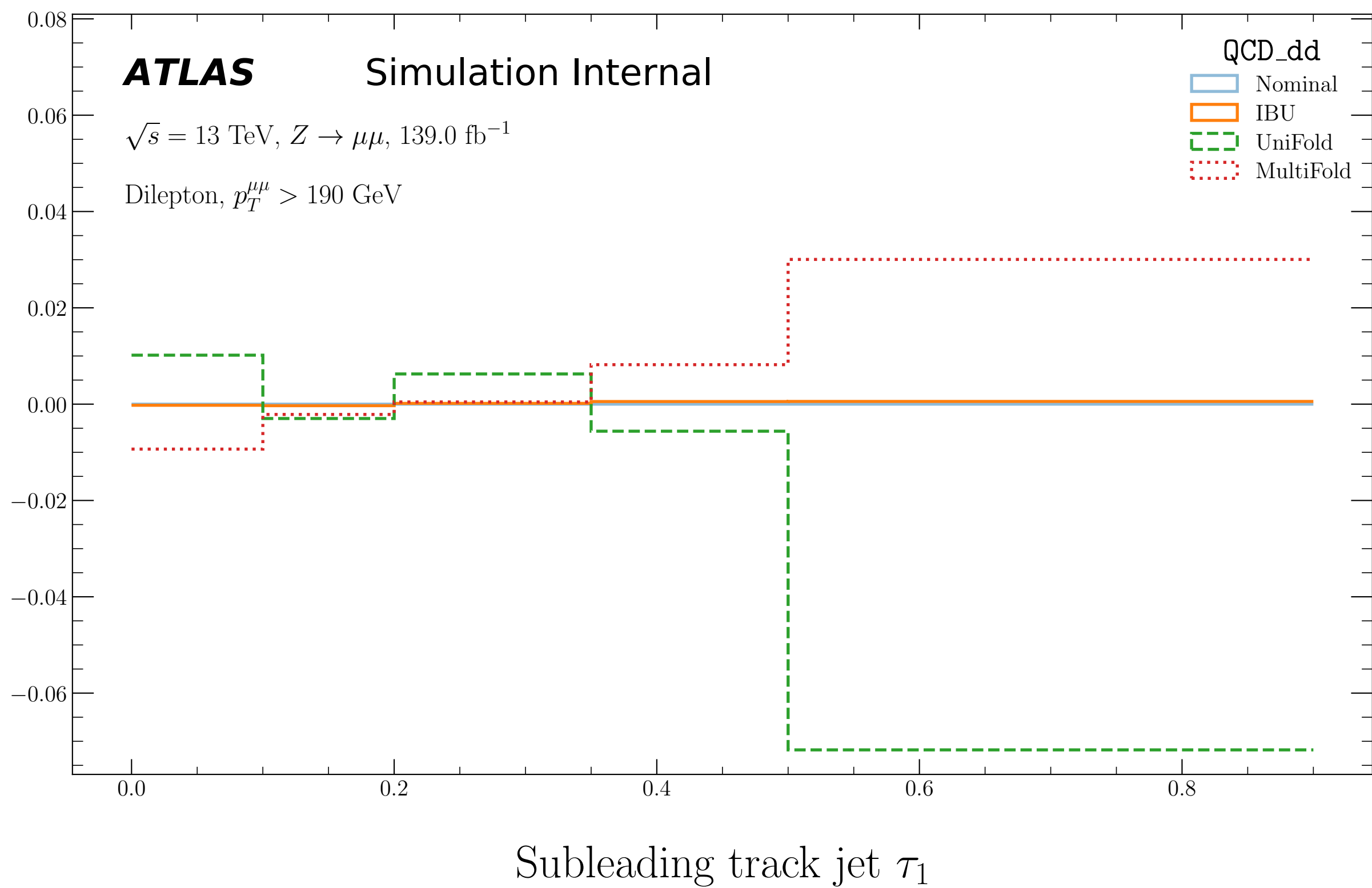
0.2

0.4

0.6

0.8

Subleading track jet τ_1 



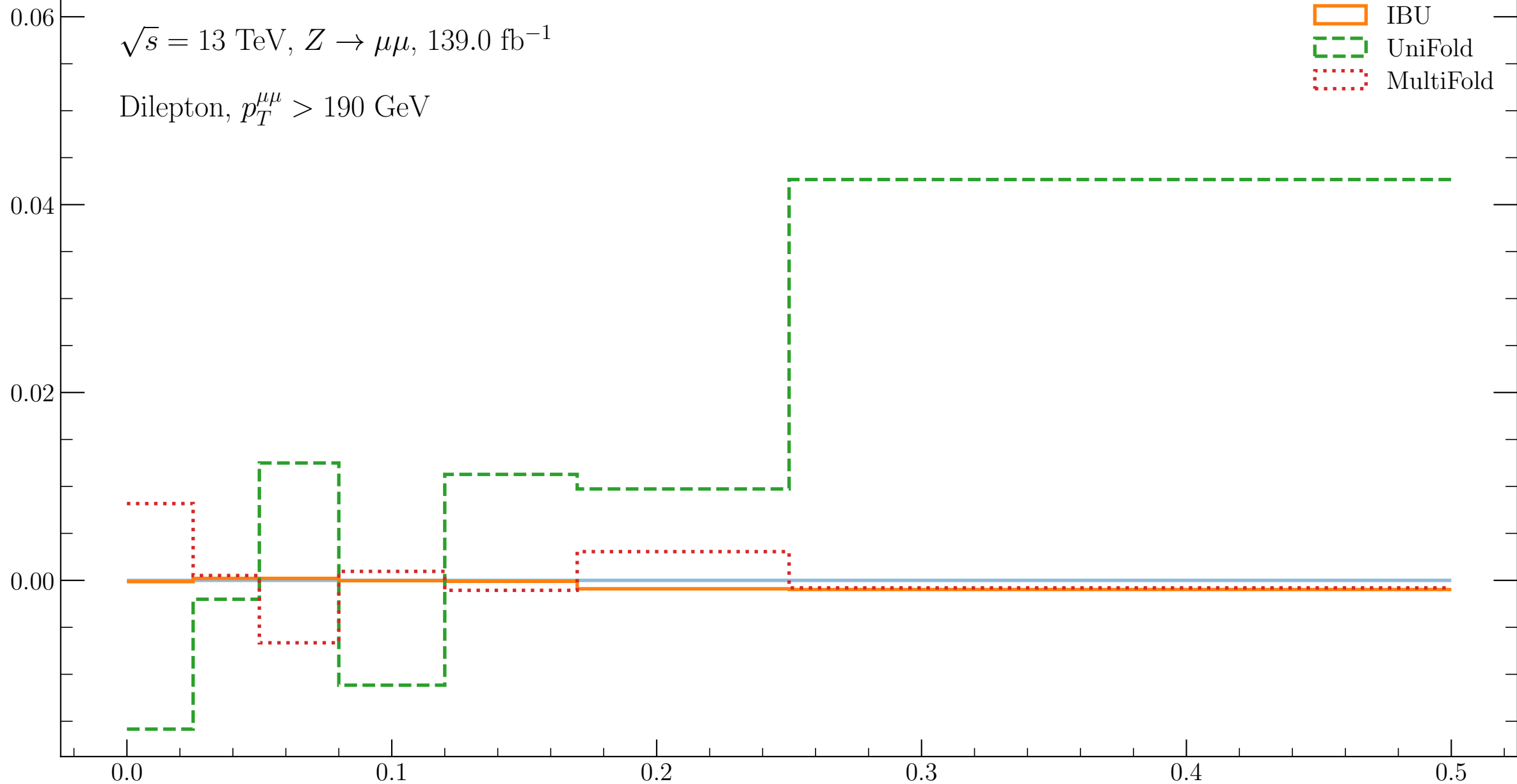
ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet τ_2

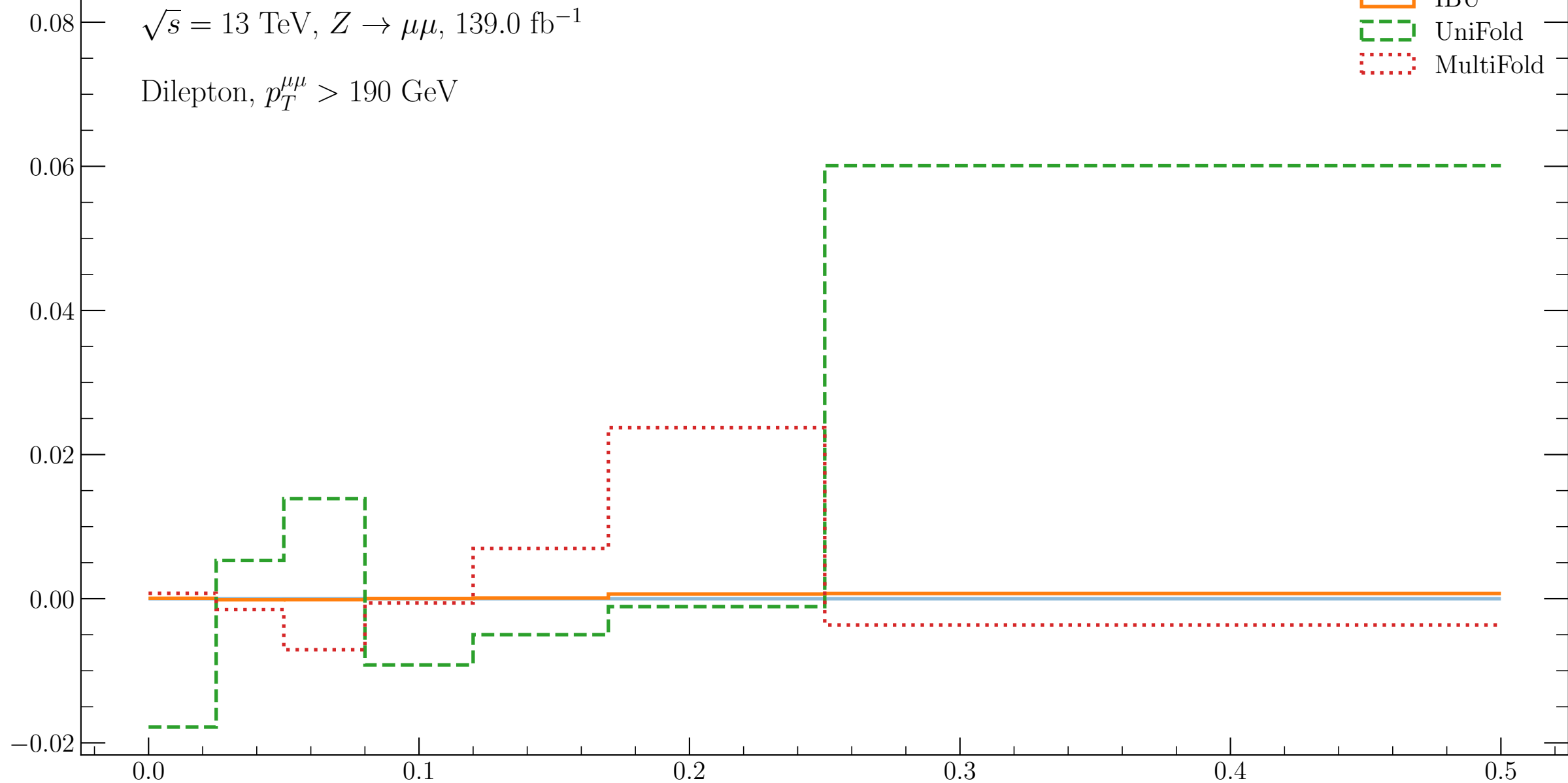
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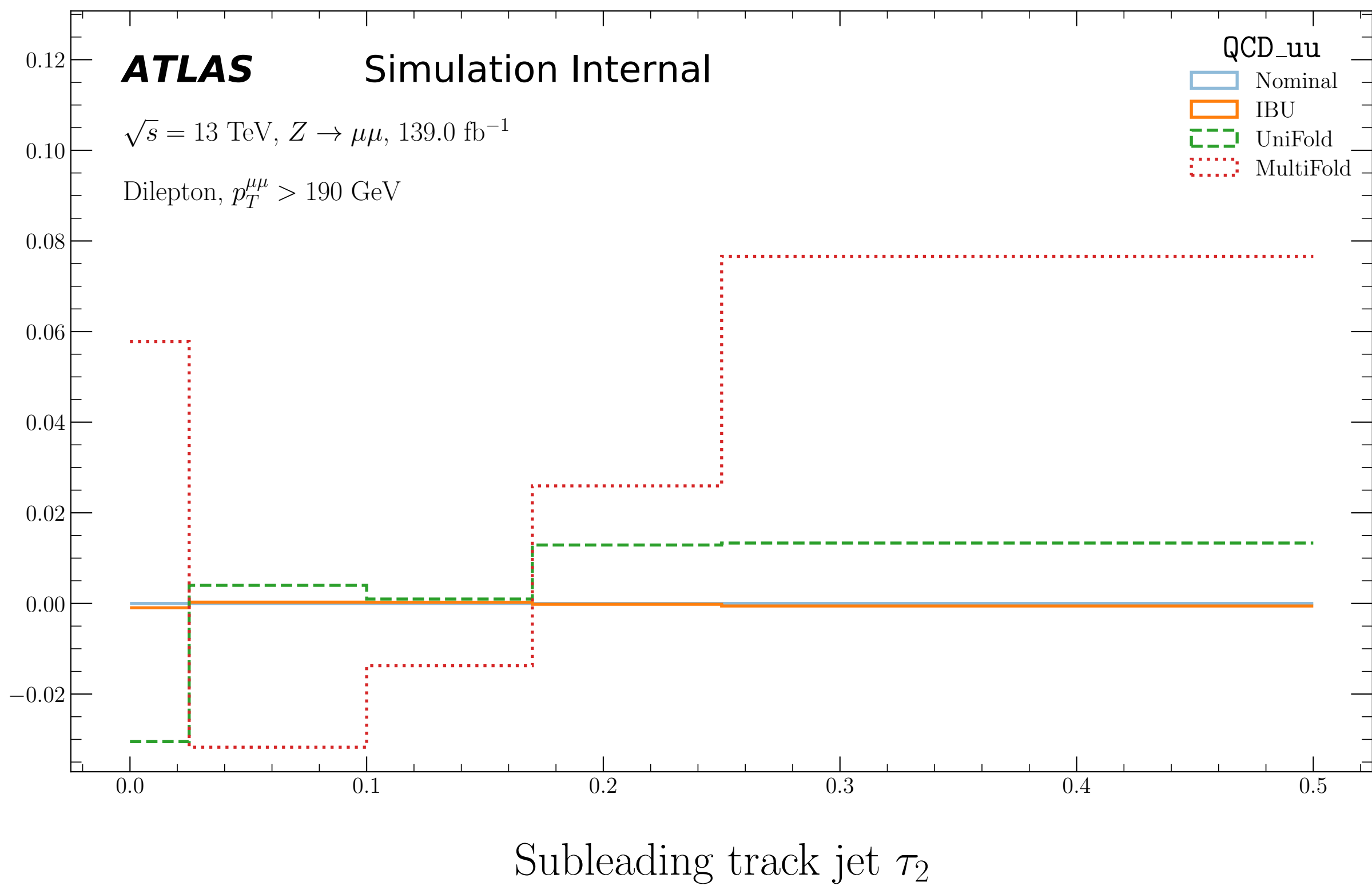
Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Leading track jet τ_2



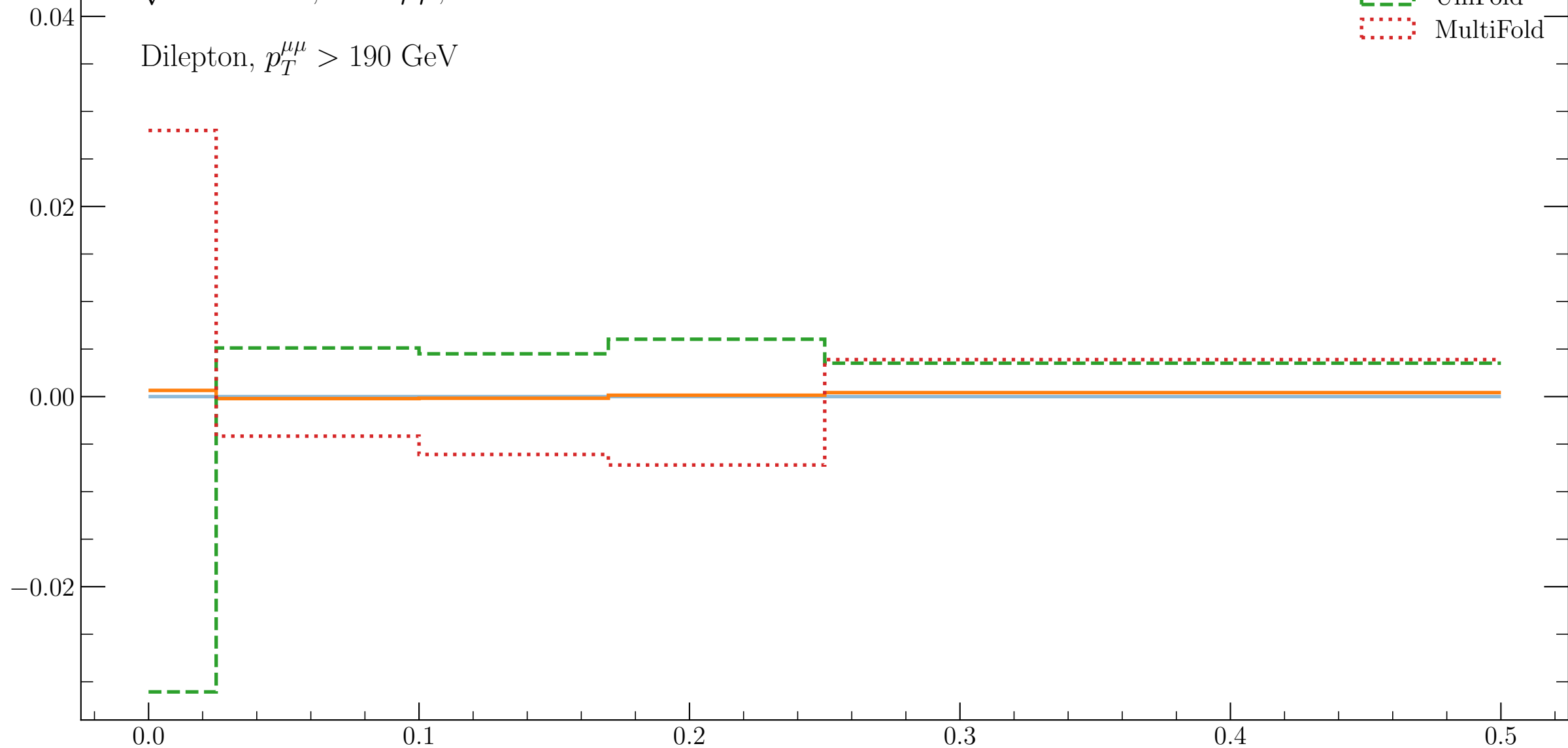
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet τ_2

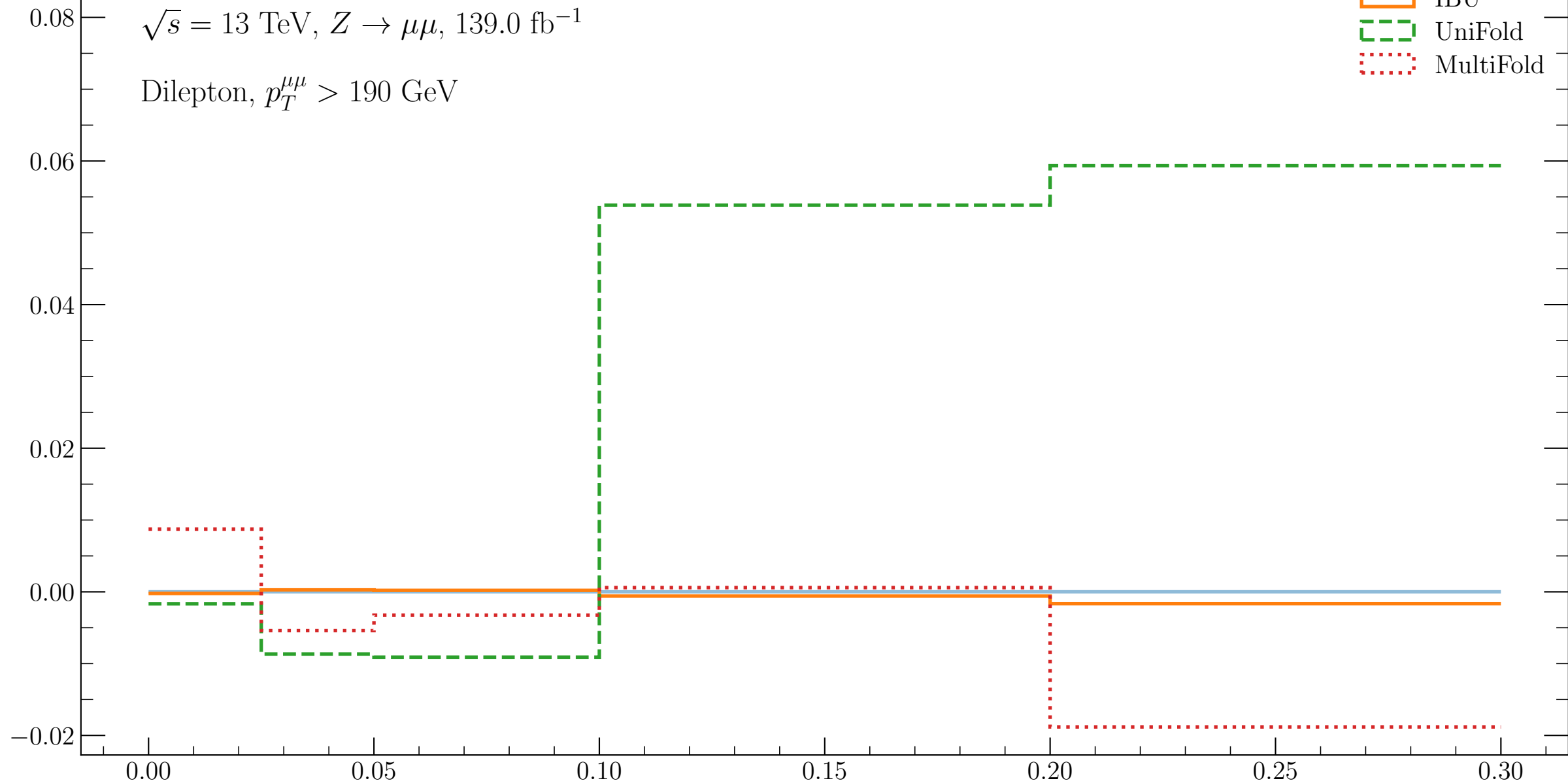
ATLAS

Simulation Internal

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

QCD_uu

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

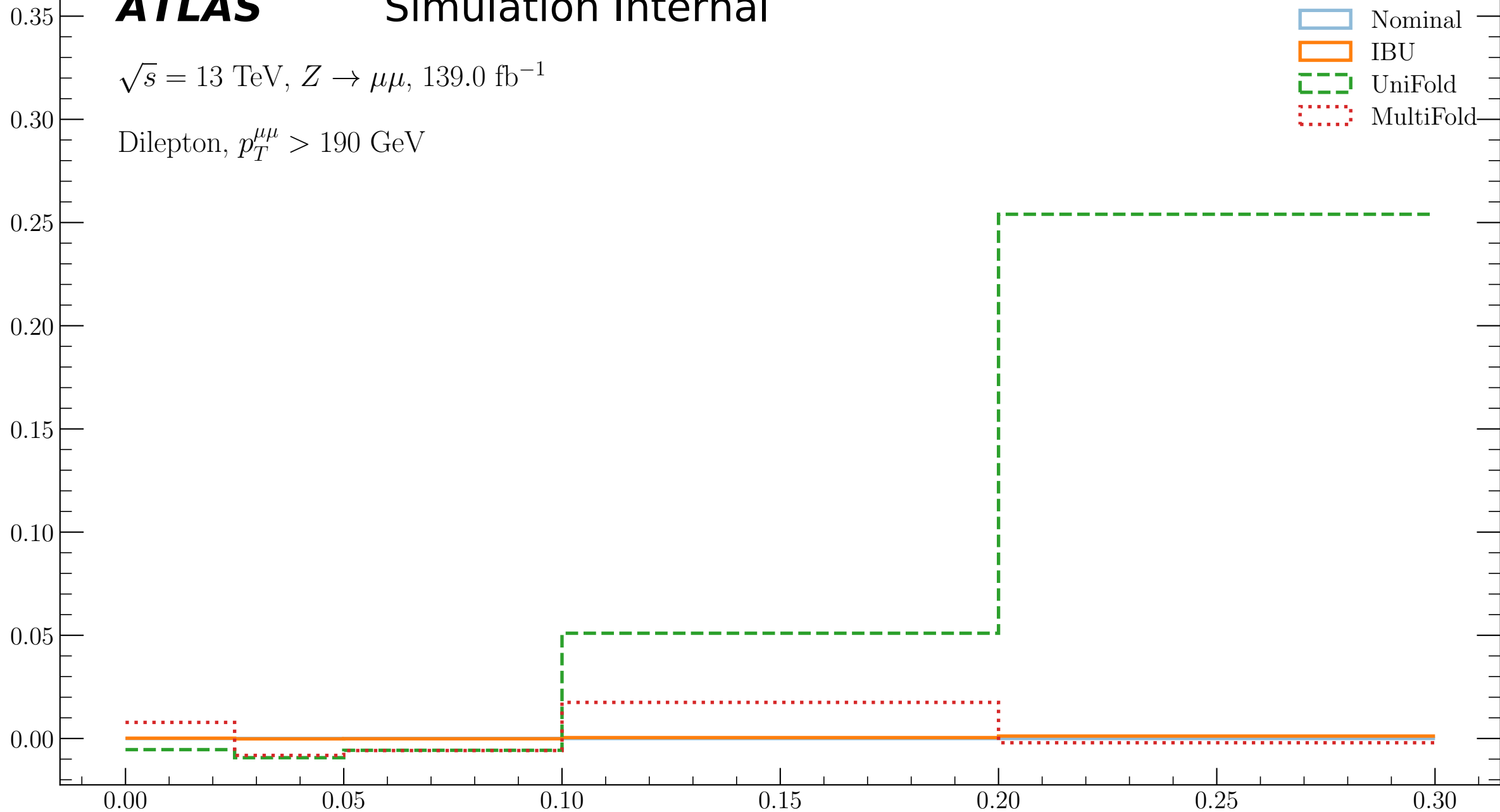
QCD_dd

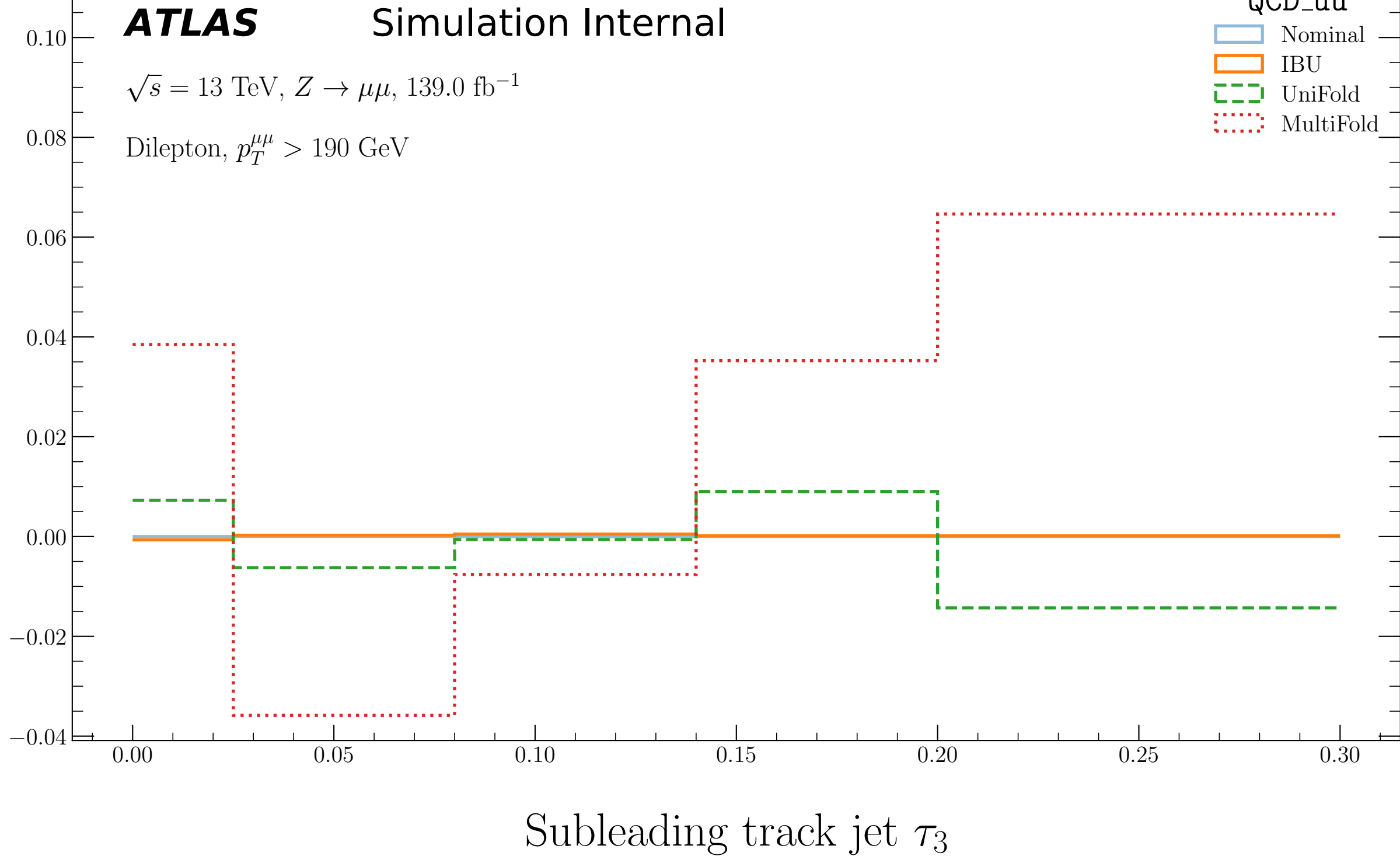
Nominal

IBU

UniFold

MultiFold

Leading track jet τ_3



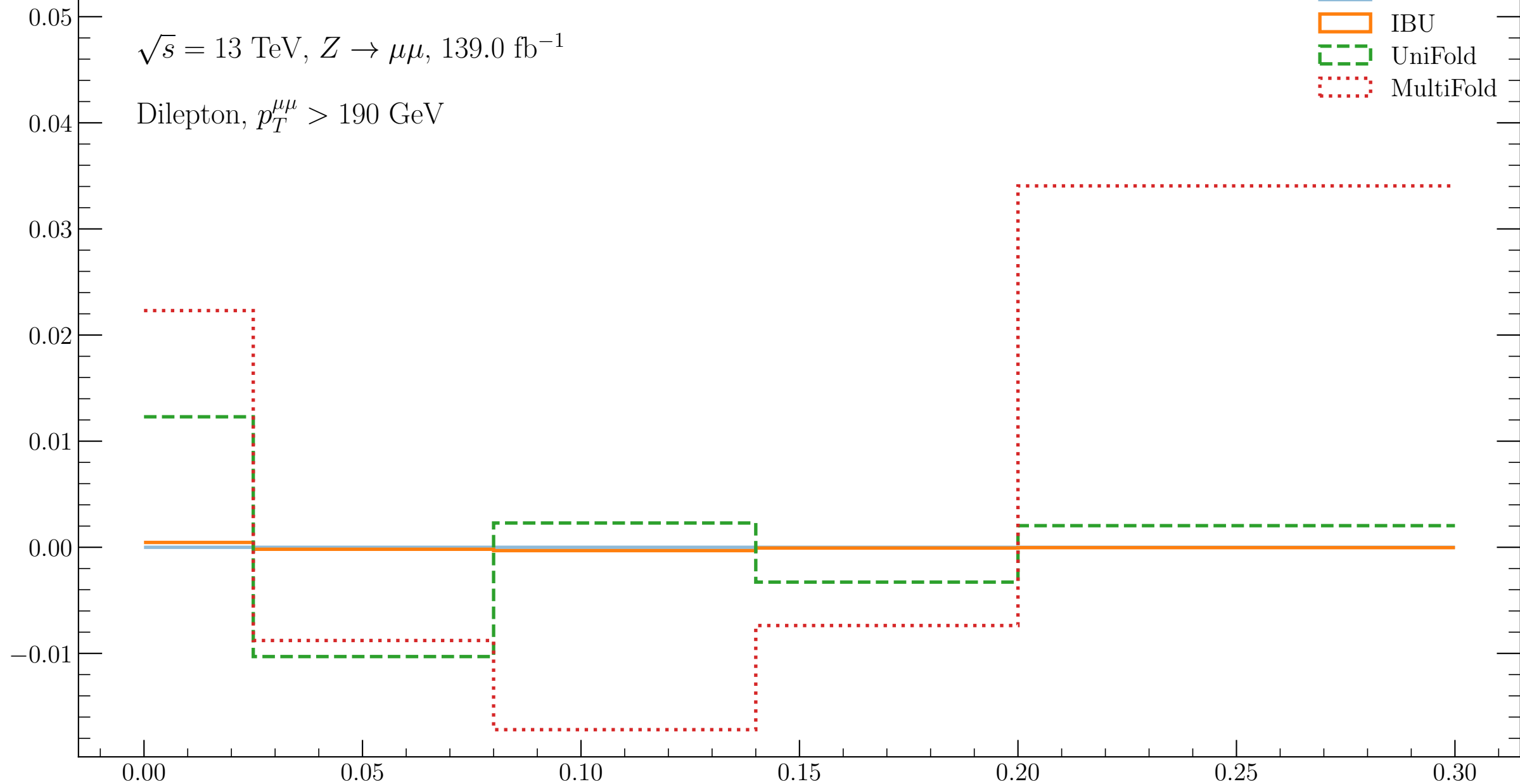
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

Subleading track jet τ_3

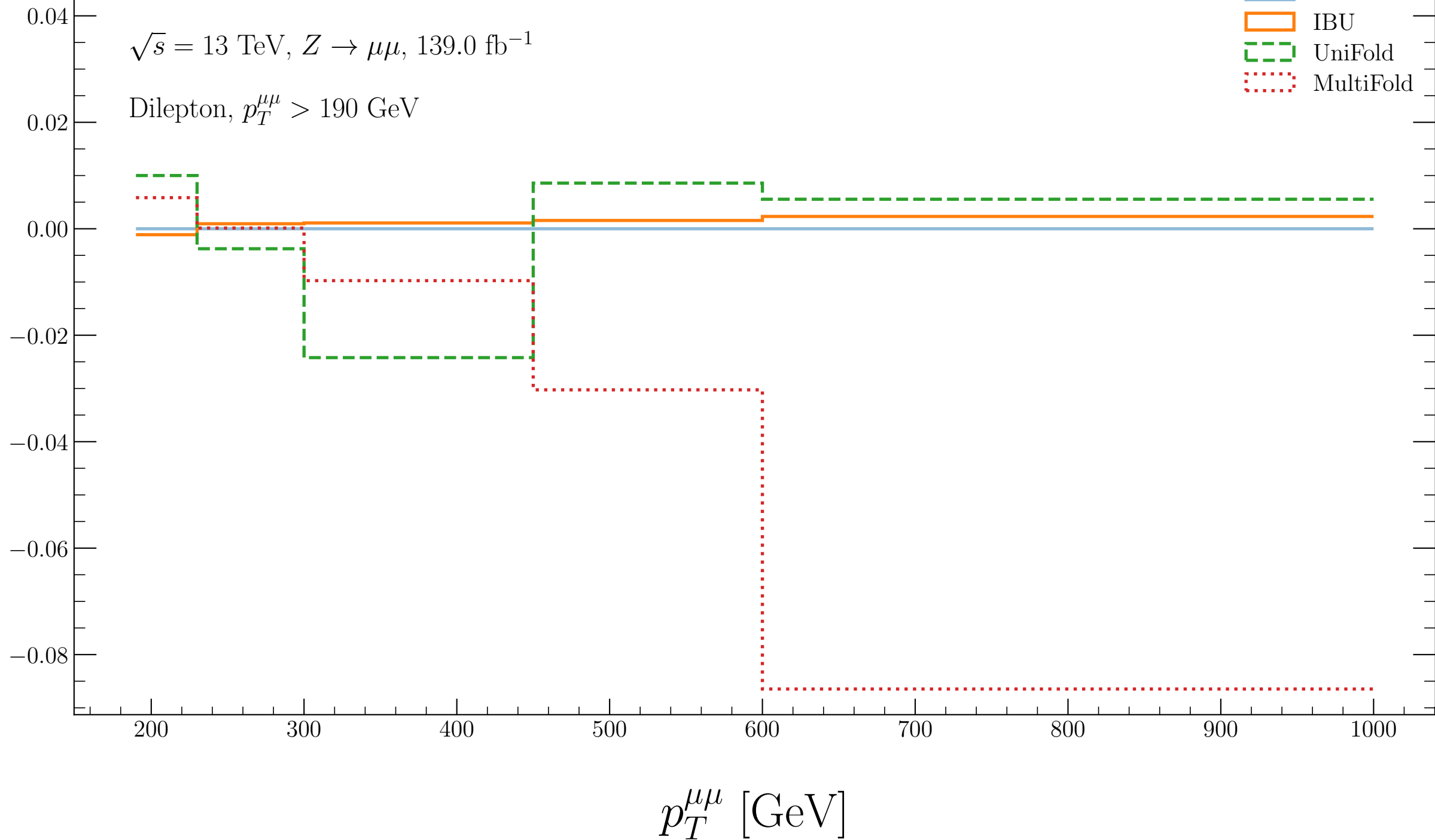
ATLAS

Simulation Internal

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

QCD_uu

- Nominal
- IBU
- UniFold
- MultiFold



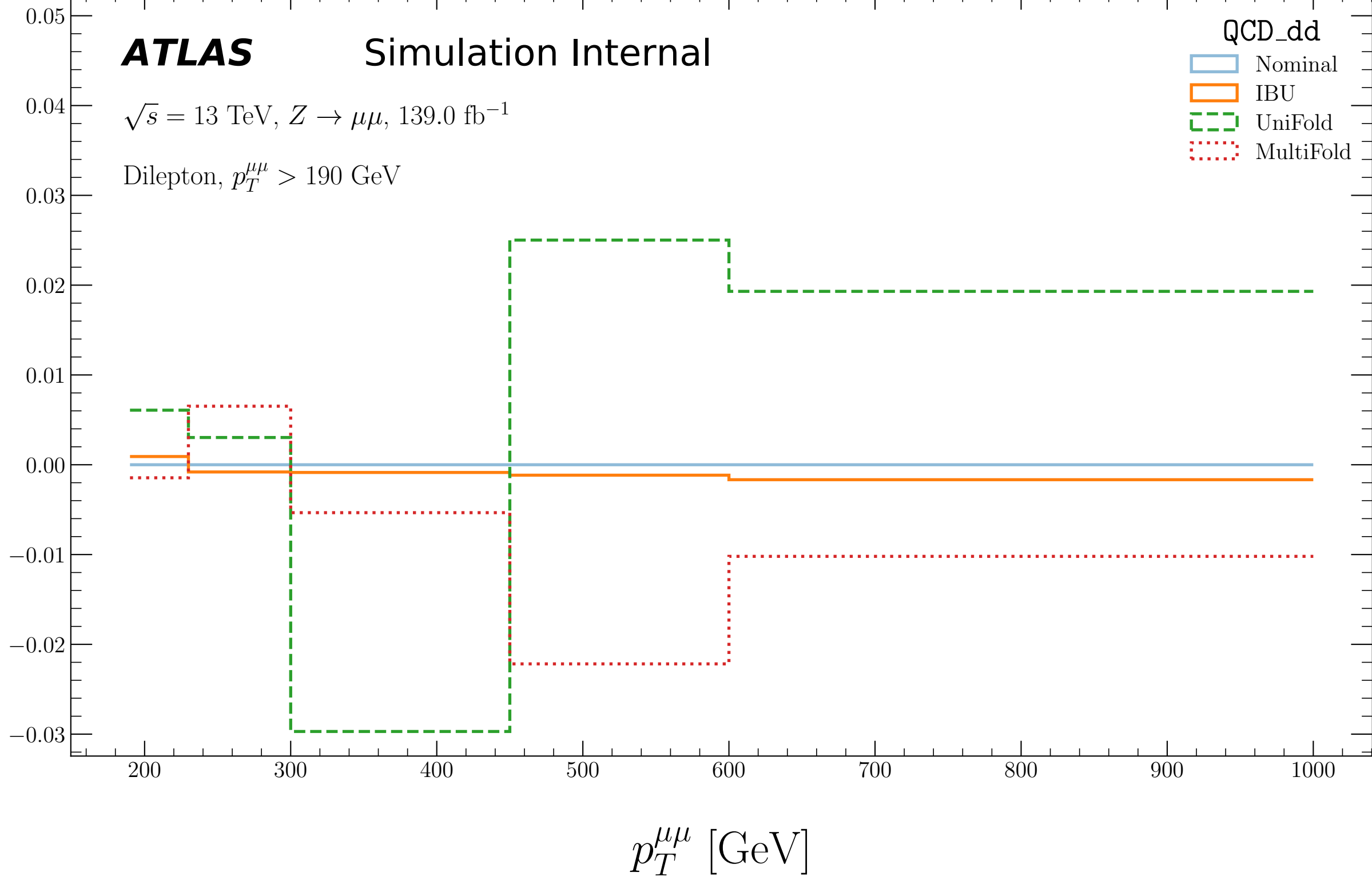
ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold



ATLAS

Simulation Internal

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

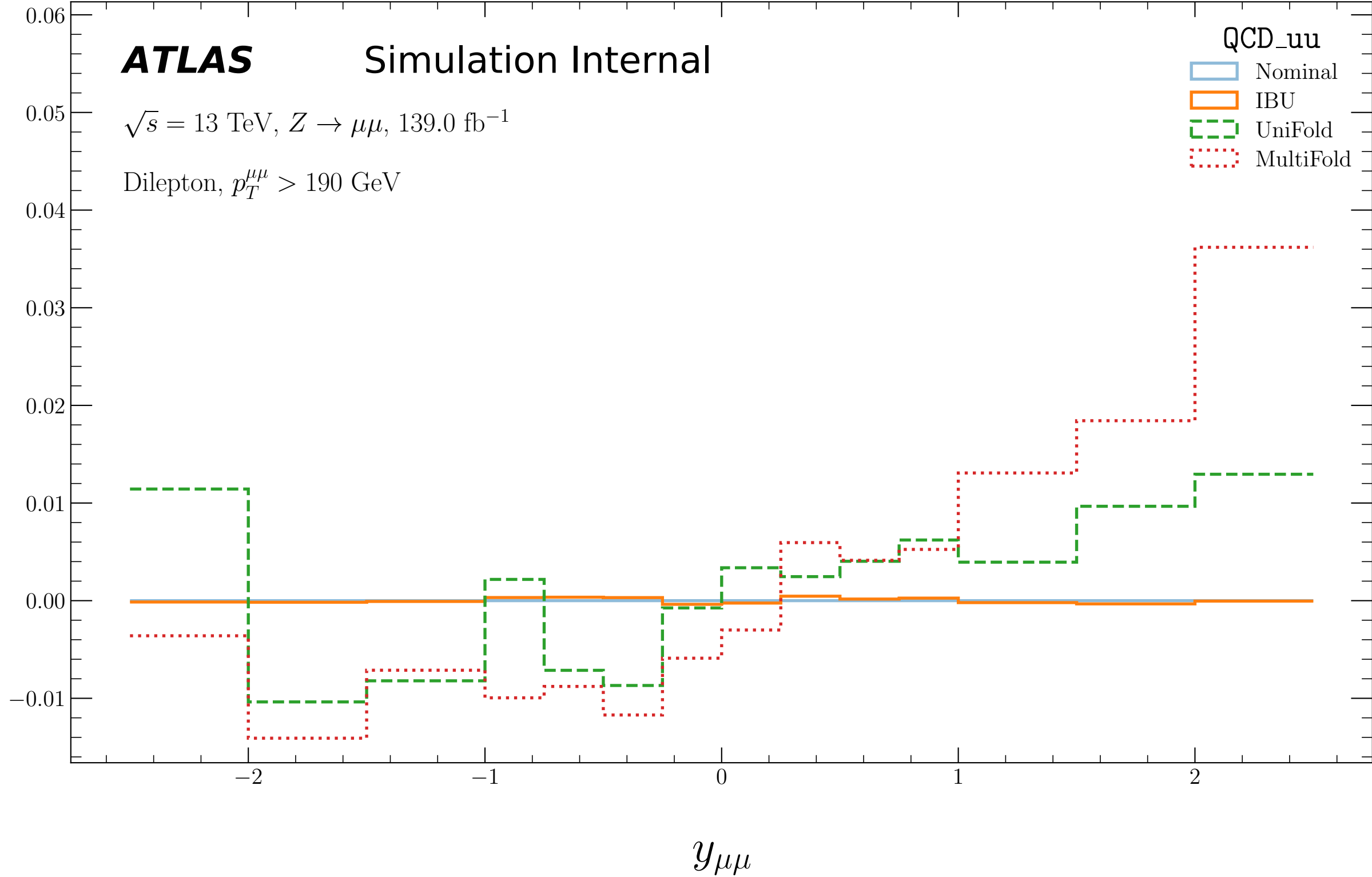
QCD_uu

Nominal

IBU

UniFold

MultiFold



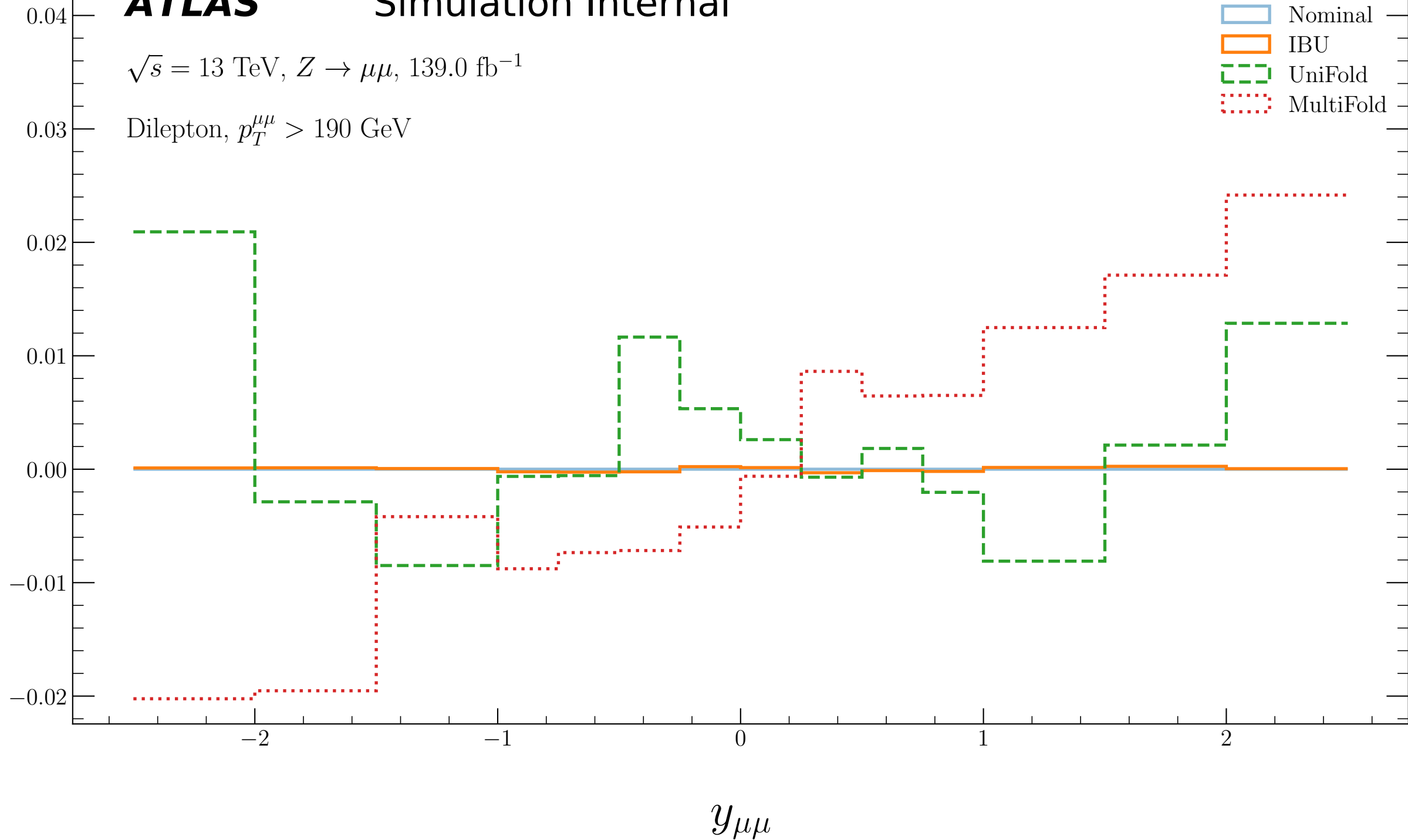
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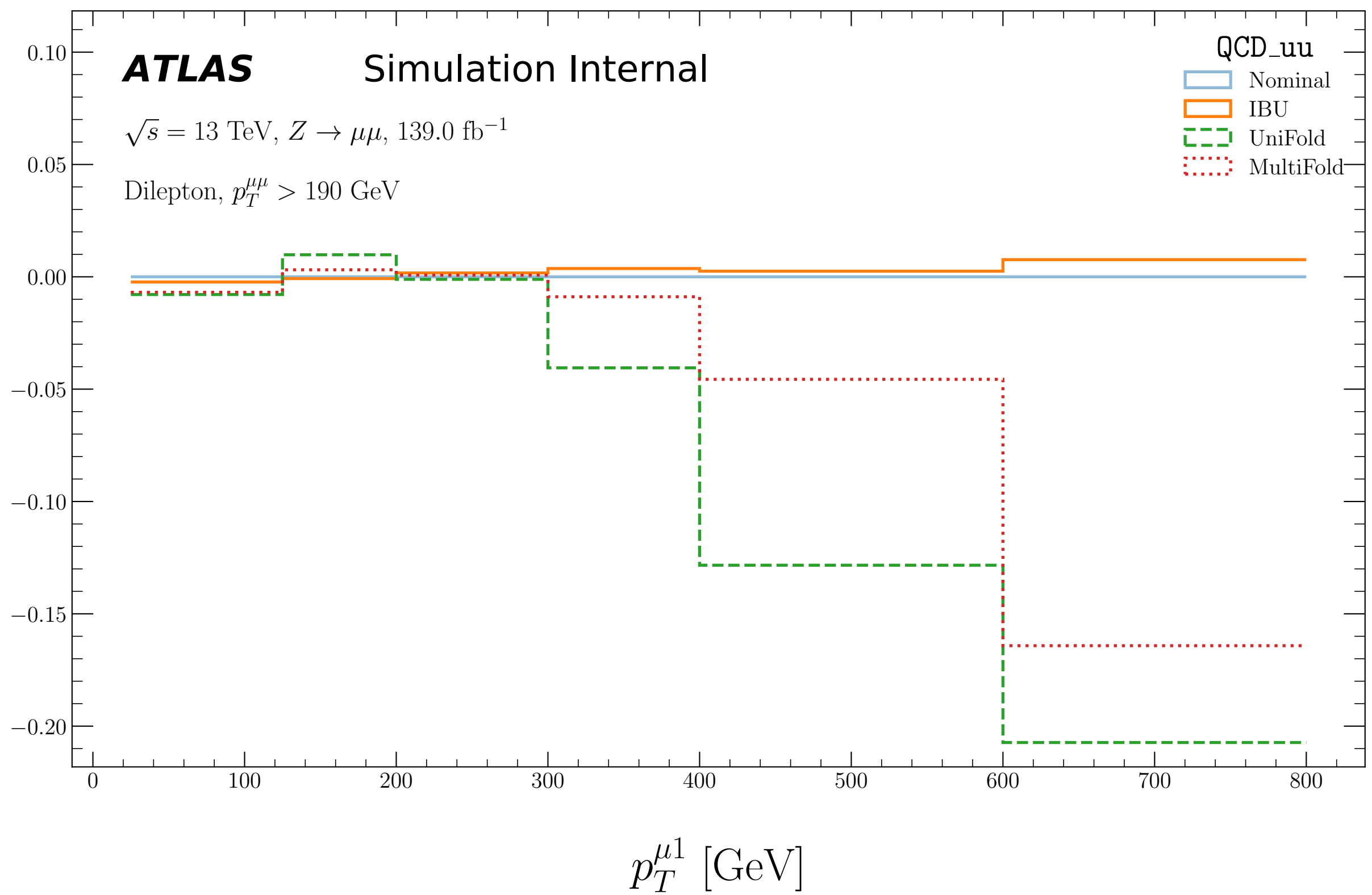
Simulation Internal

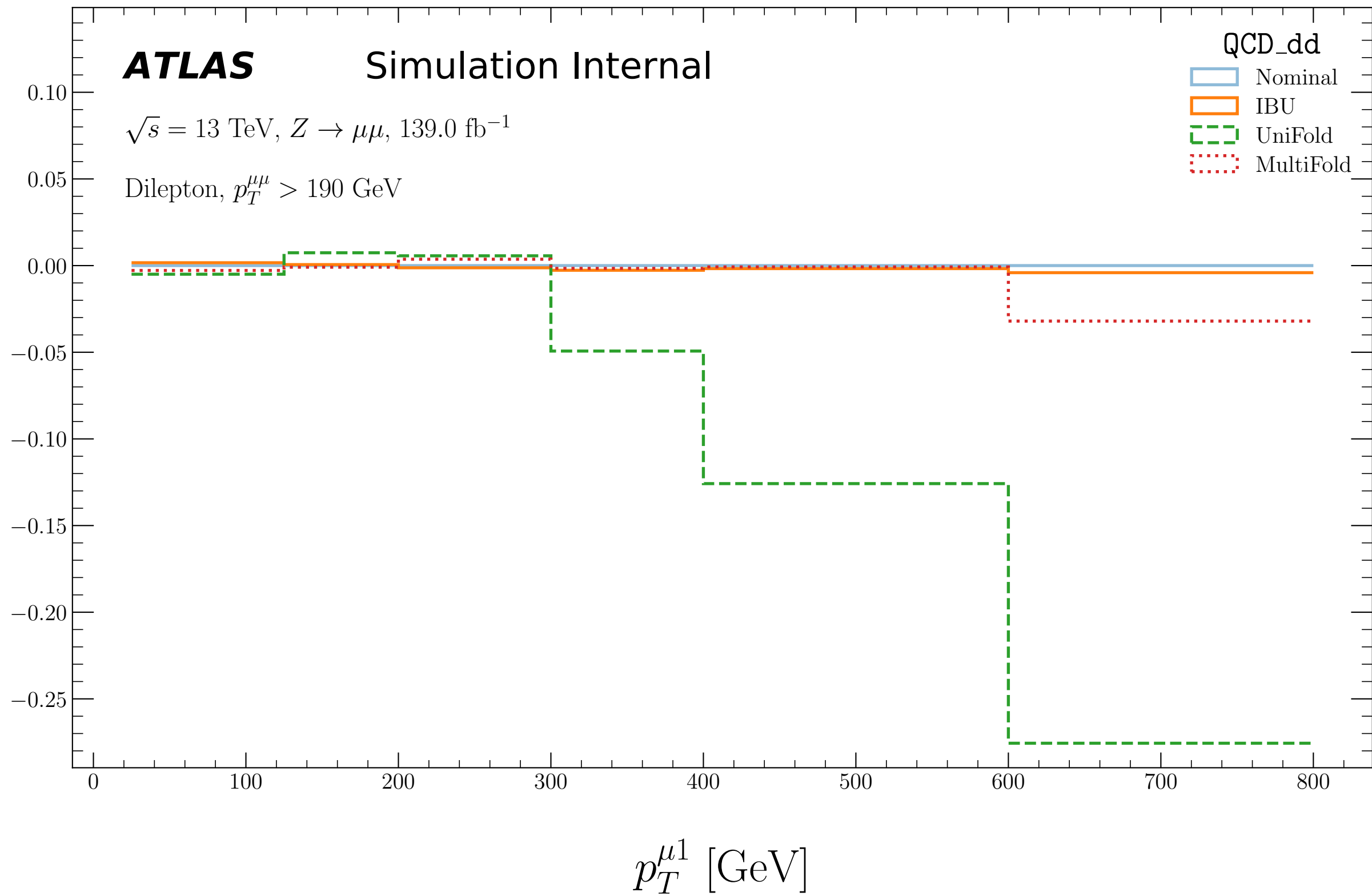
 $\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$ Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

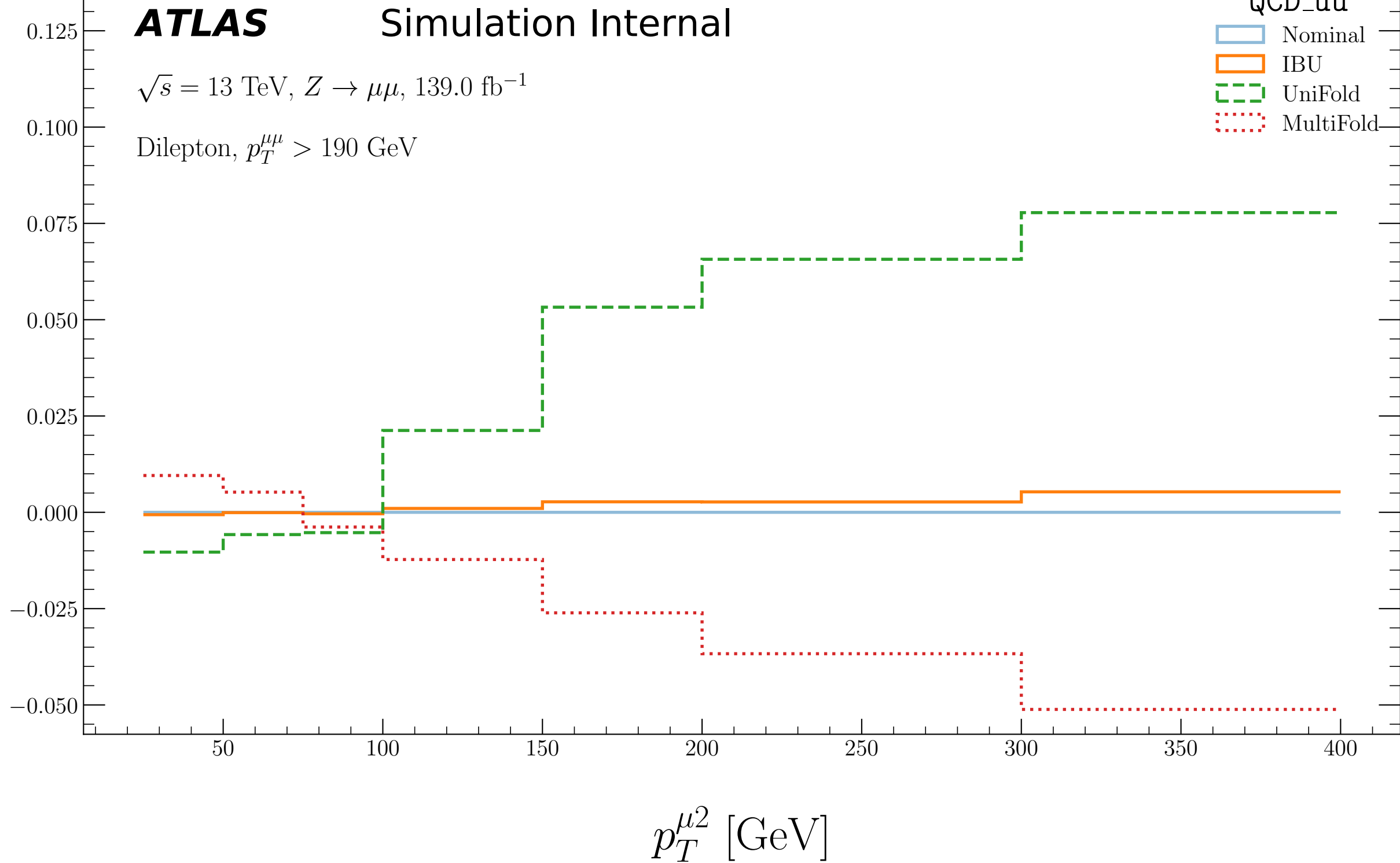
QCD_dd

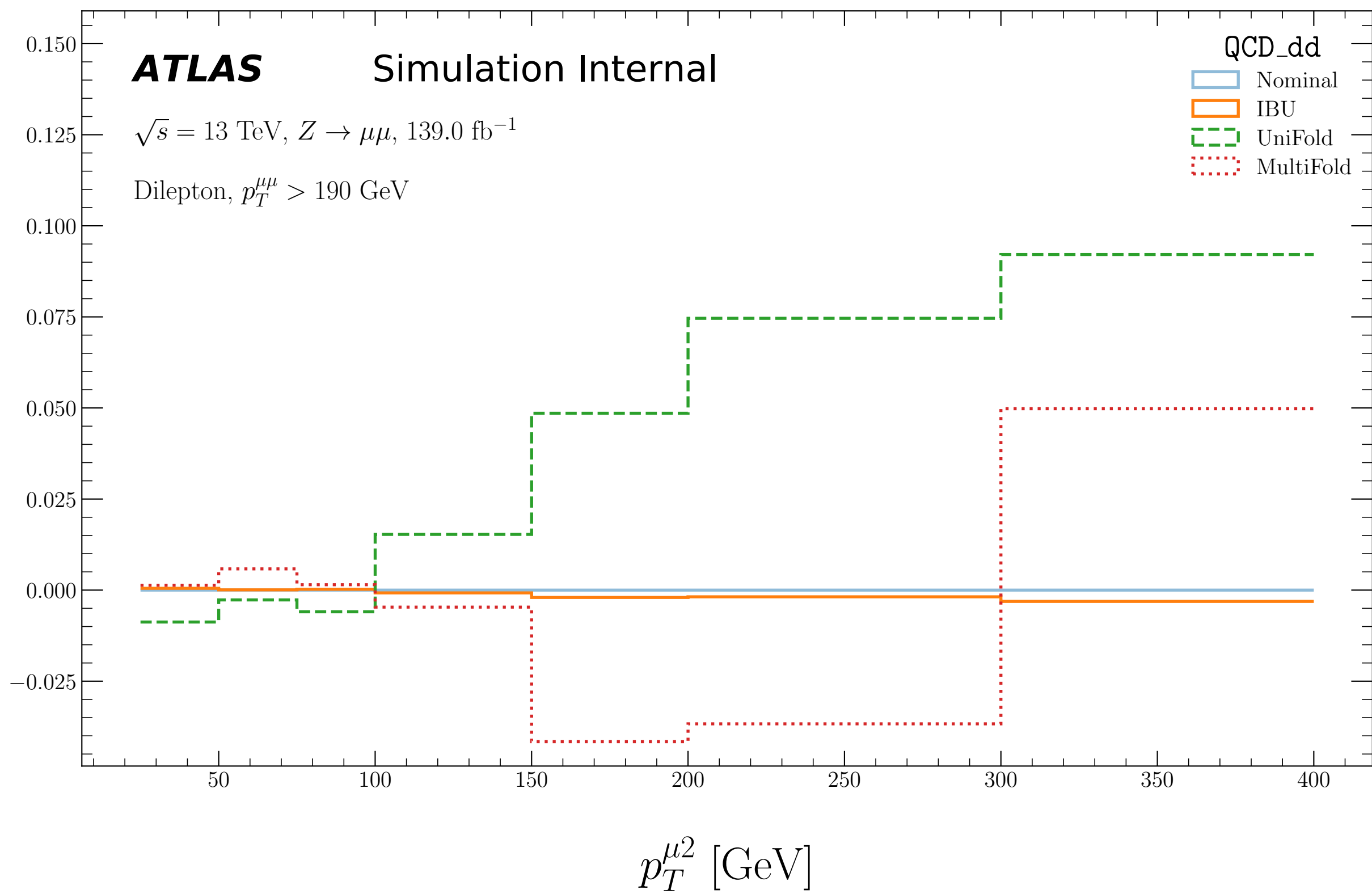
- Nominal
- IBU
- UniFold
- MultiFold

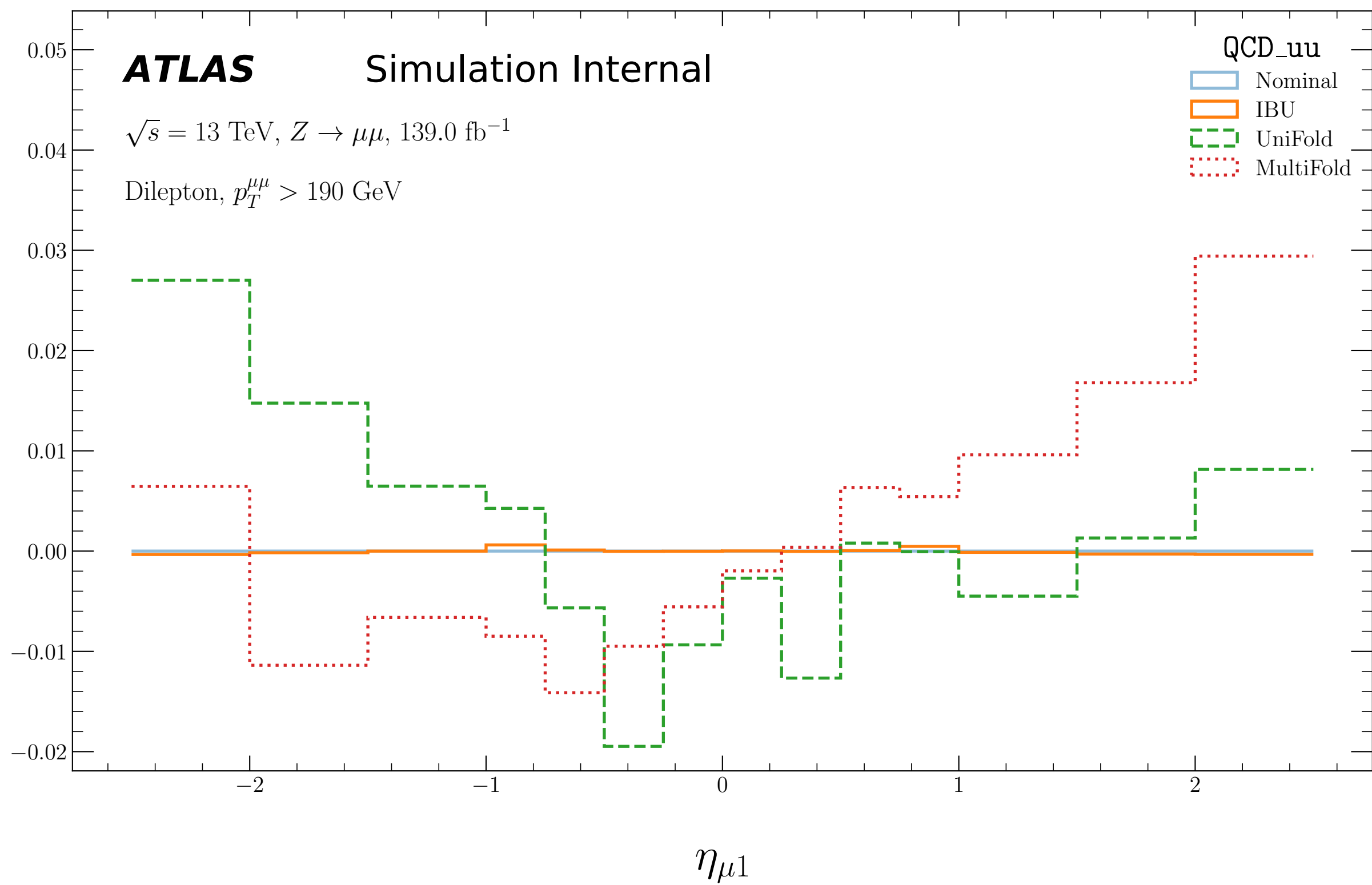












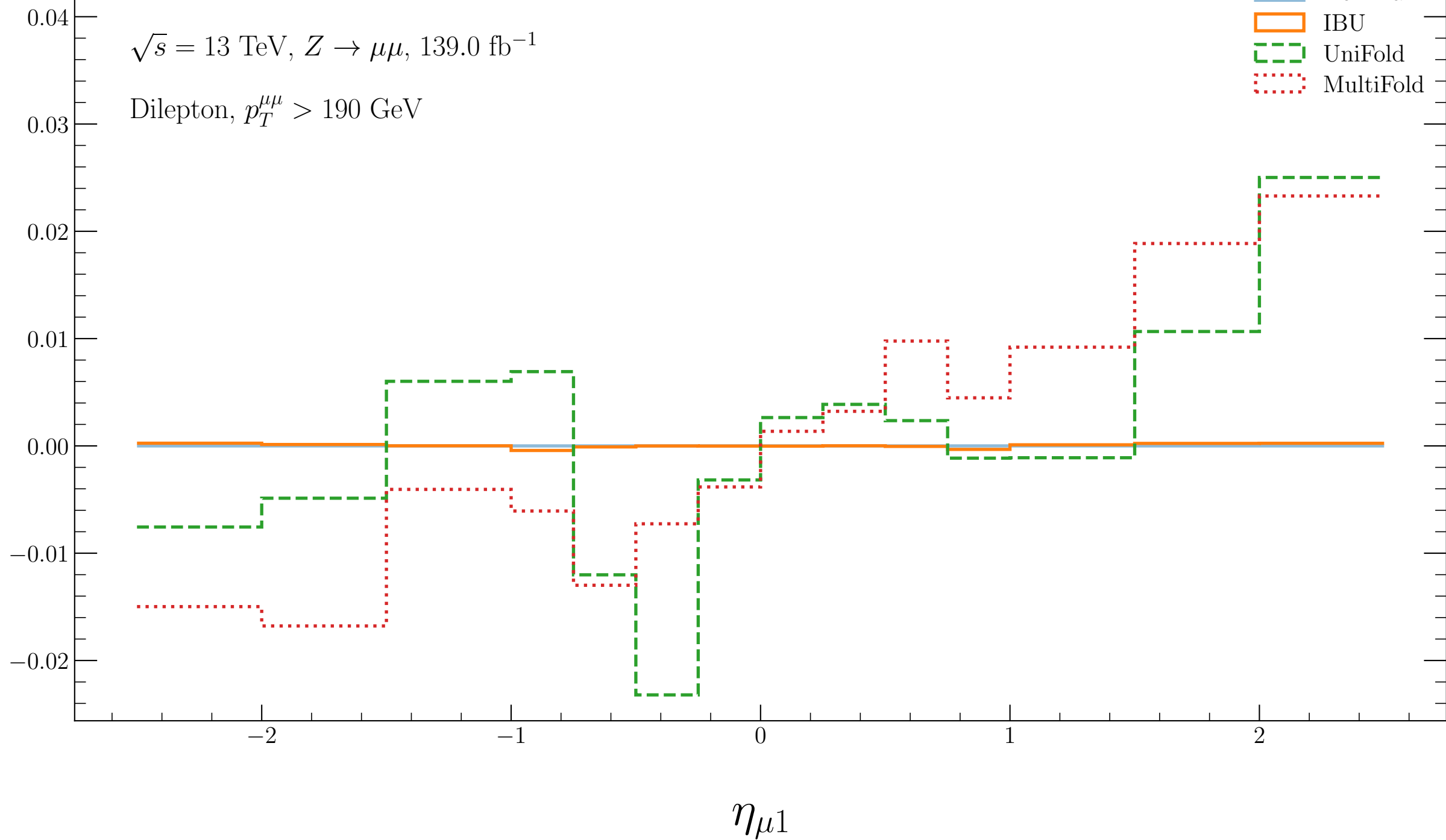
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QCD_dd

- Nominal
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- UniFold
- MultiFold



ATLAS

Simulation Internal

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

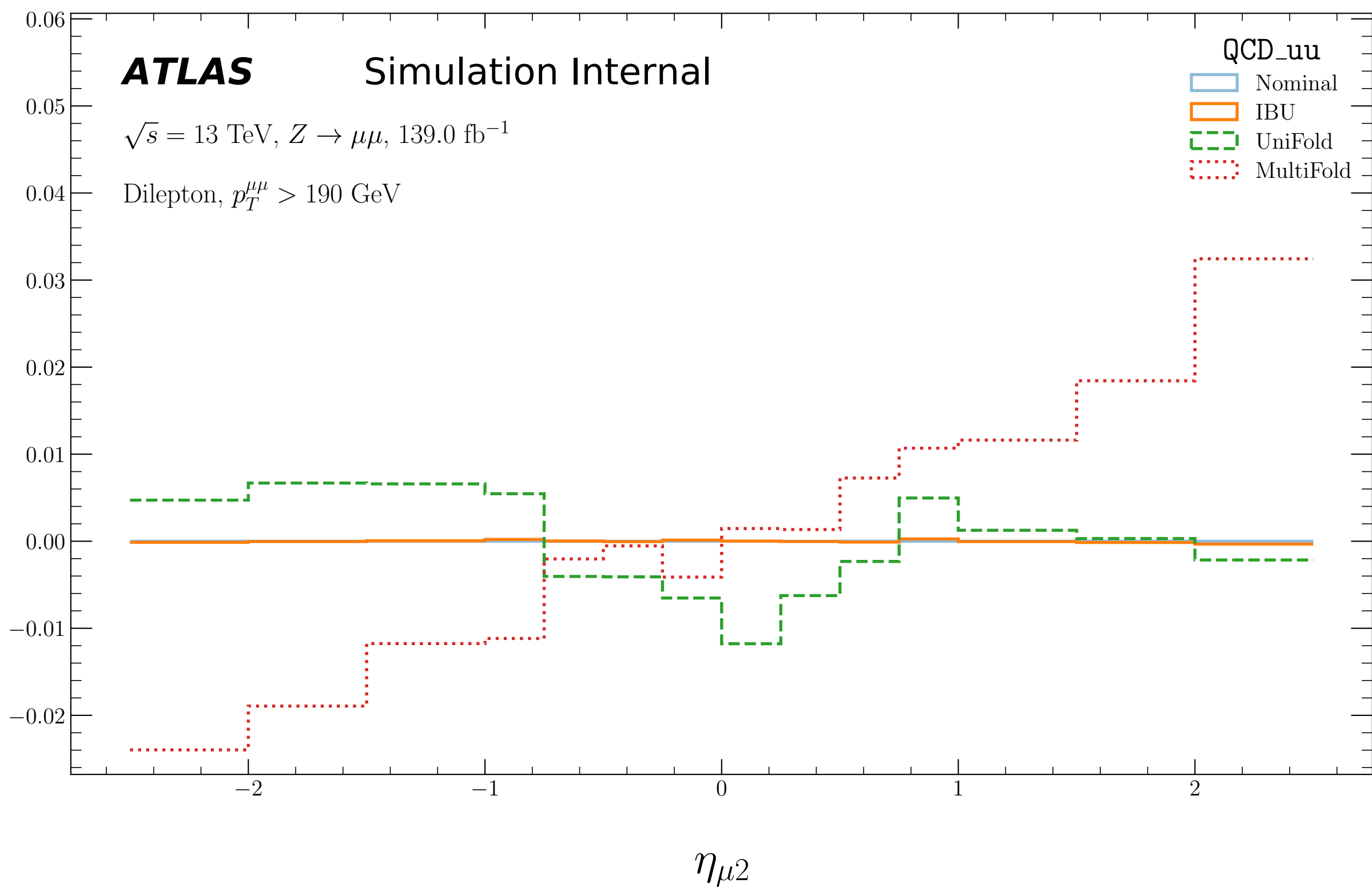
QCD_uu

Nominal

IBU

UniFold

MultiFold



ATLAS

Simulation Internal

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

QCD_dd

- Nominal
- IBU
- UniFold
- MultiFold

0.03
0.02
0.01
0.00
-0.01
-0.02

 $\eta_{\mu 2}$

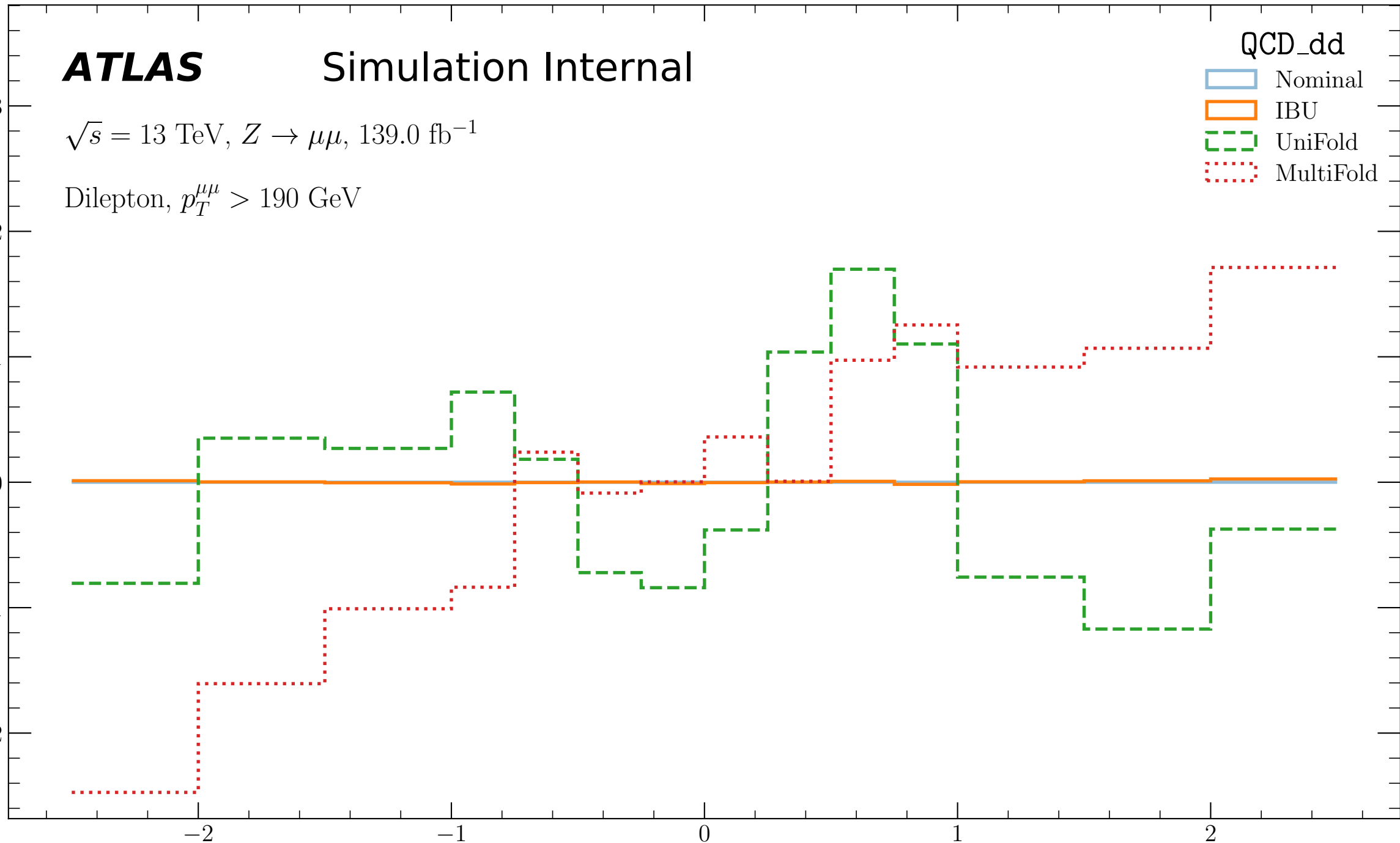
-2

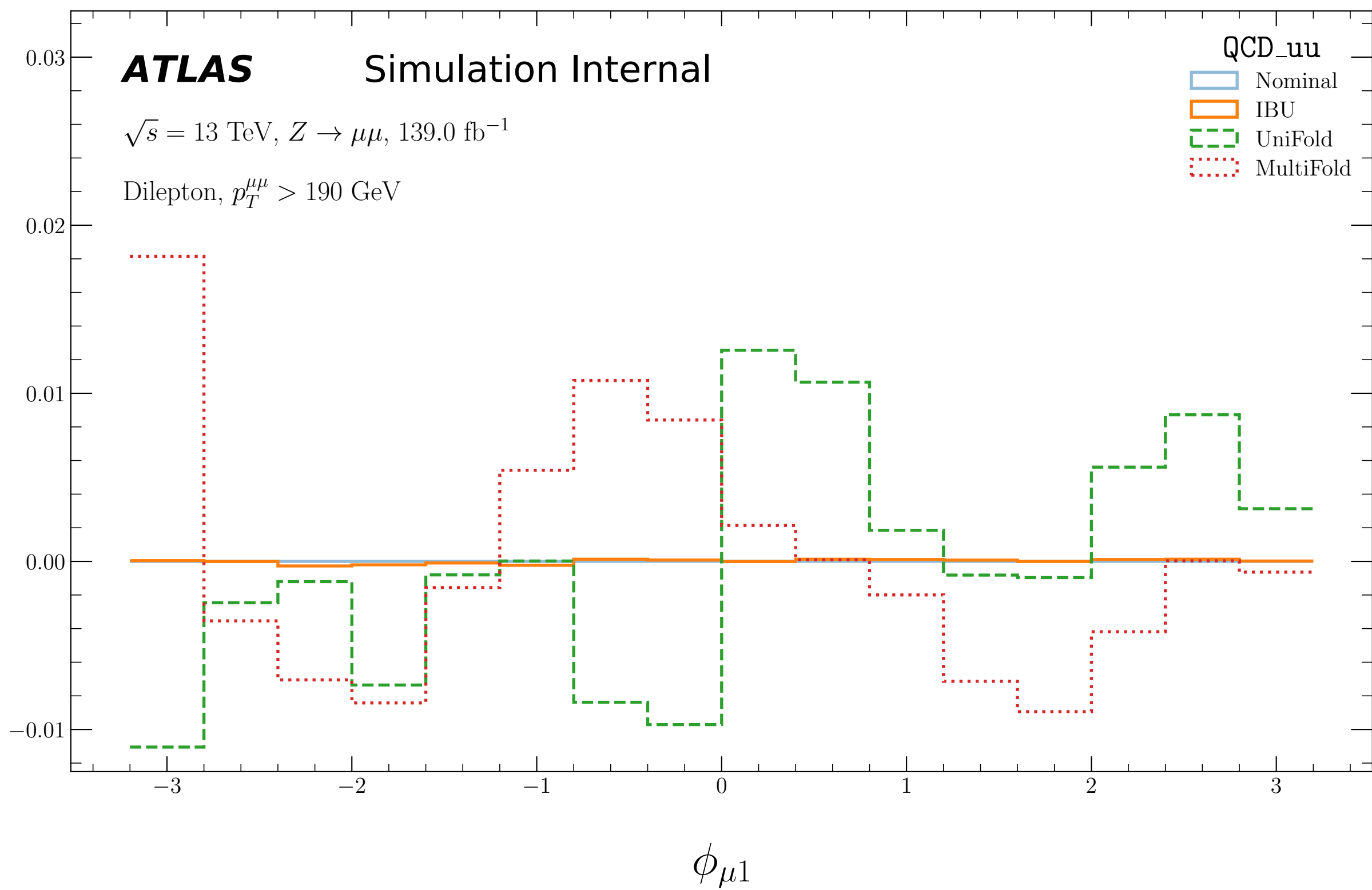
-1

0

1

2





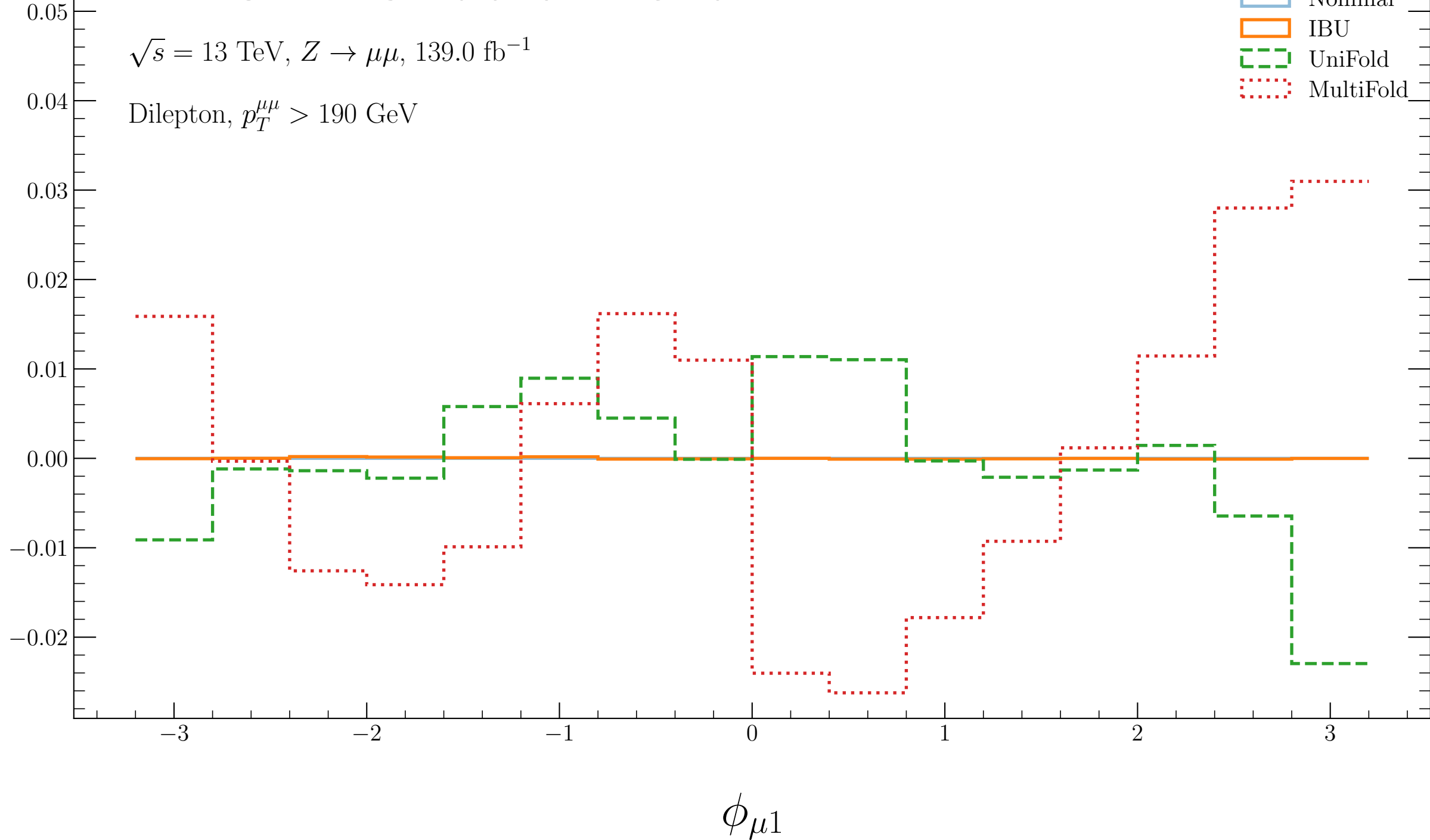
ATLAS

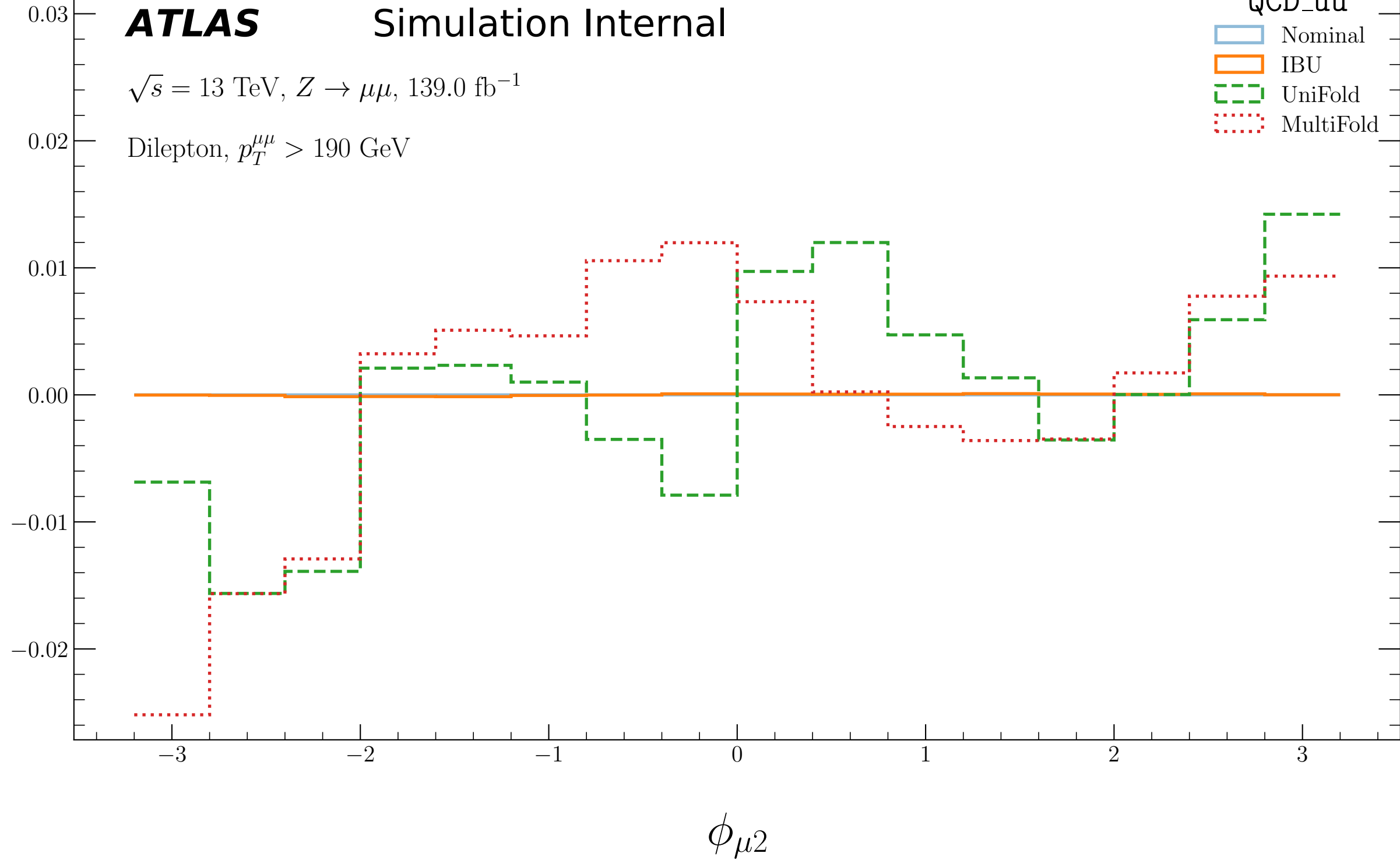
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QCD_dd

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- UniFold
- MultiFold





ATLAS

Simulation Internal

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

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