

Events per bin (normalized)

ATLAS

Simulation Internal

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

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

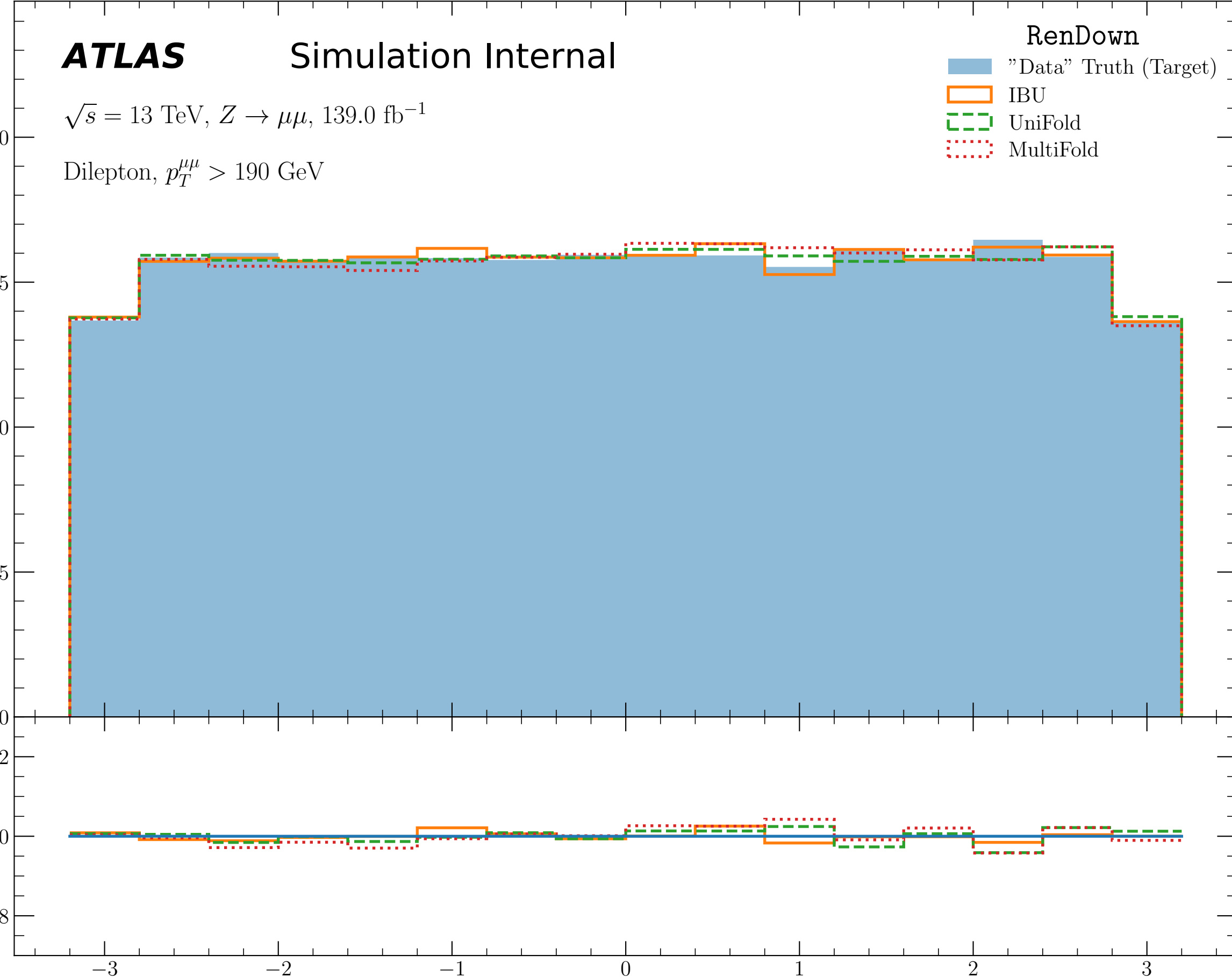
RenDown

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20
0.15
0.10
0.05
0.00
1.2
1.0
0.8

Ratio to "Data" Truth

Leading track jet ϕ



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

MPIUp

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20
0.15
0.10
0.05
0.00

Ratio to "Data" Truth

1.2
1.0
0.8

Leading track jet ϕ

-3

-2

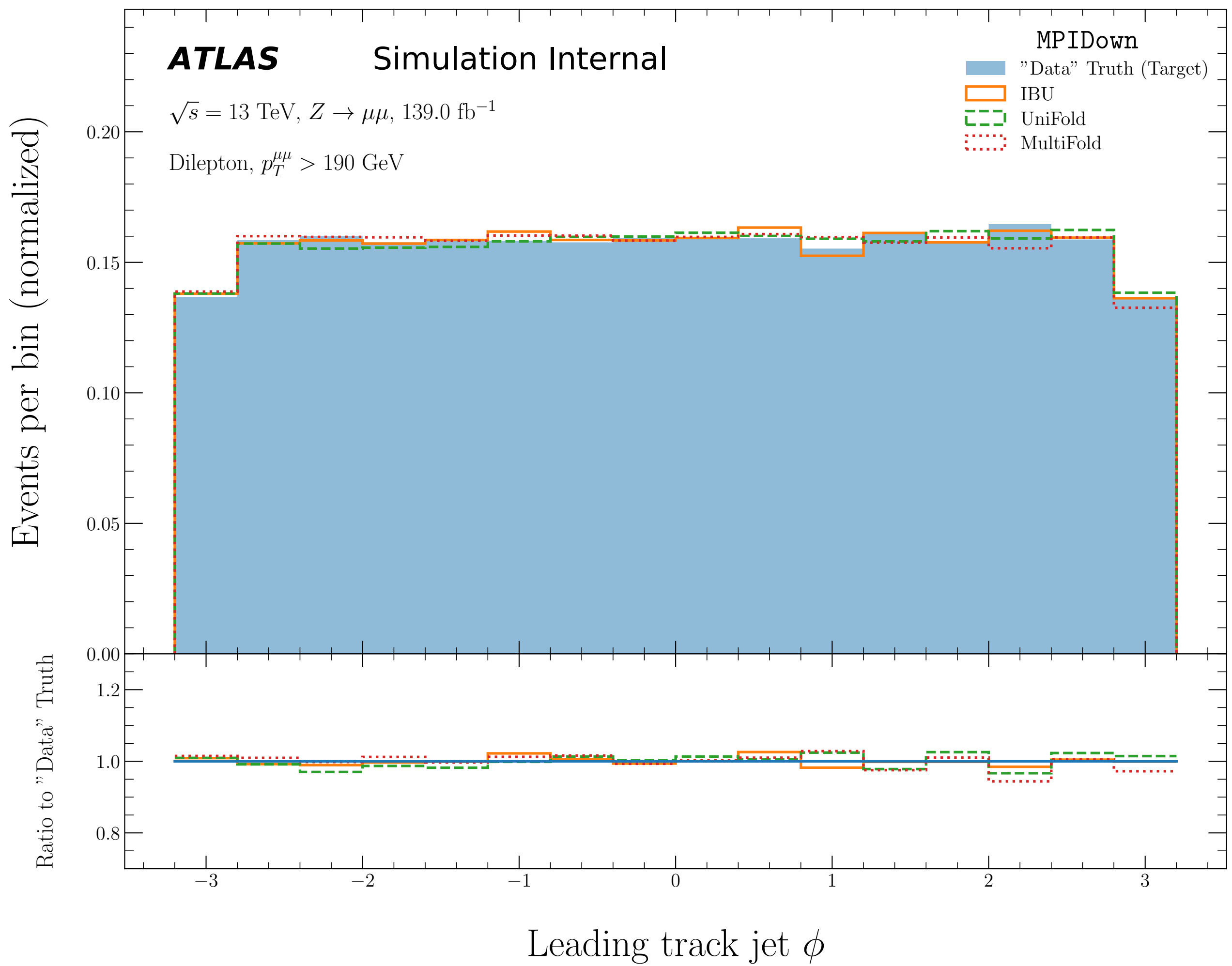
-1

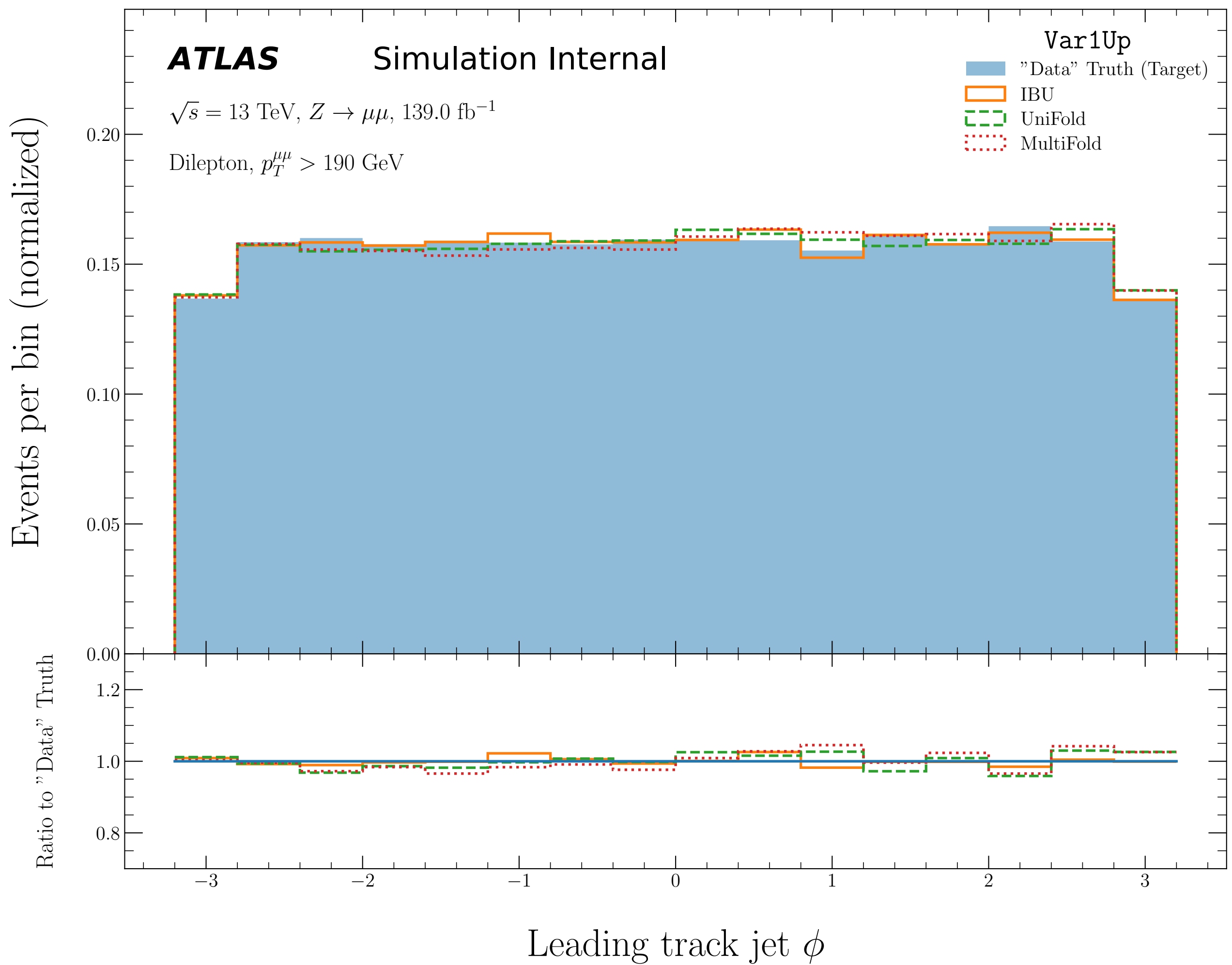
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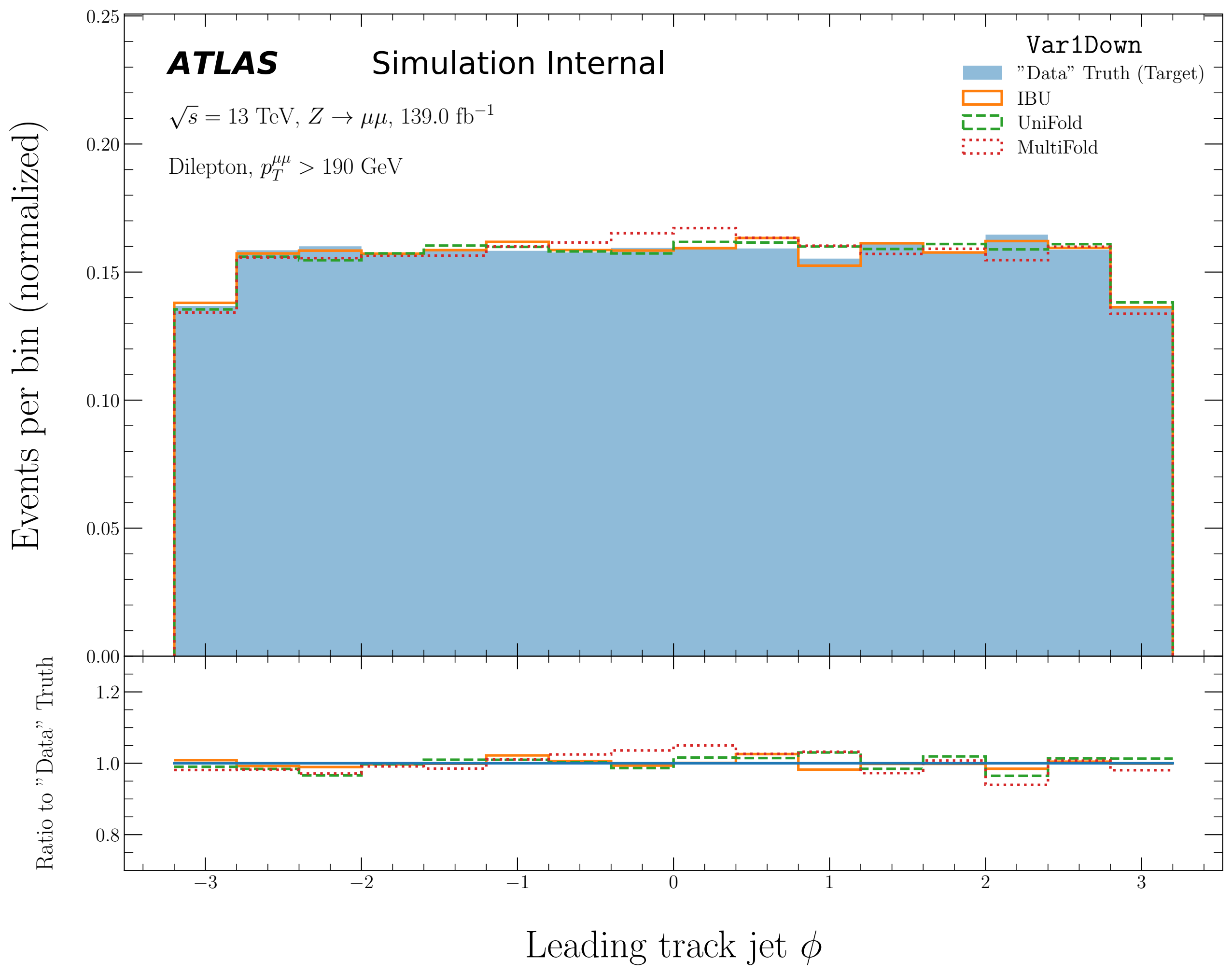
1

2

3







Events per bin (normalized)

ATLAS

Simulation Internal

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

Var2Up

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

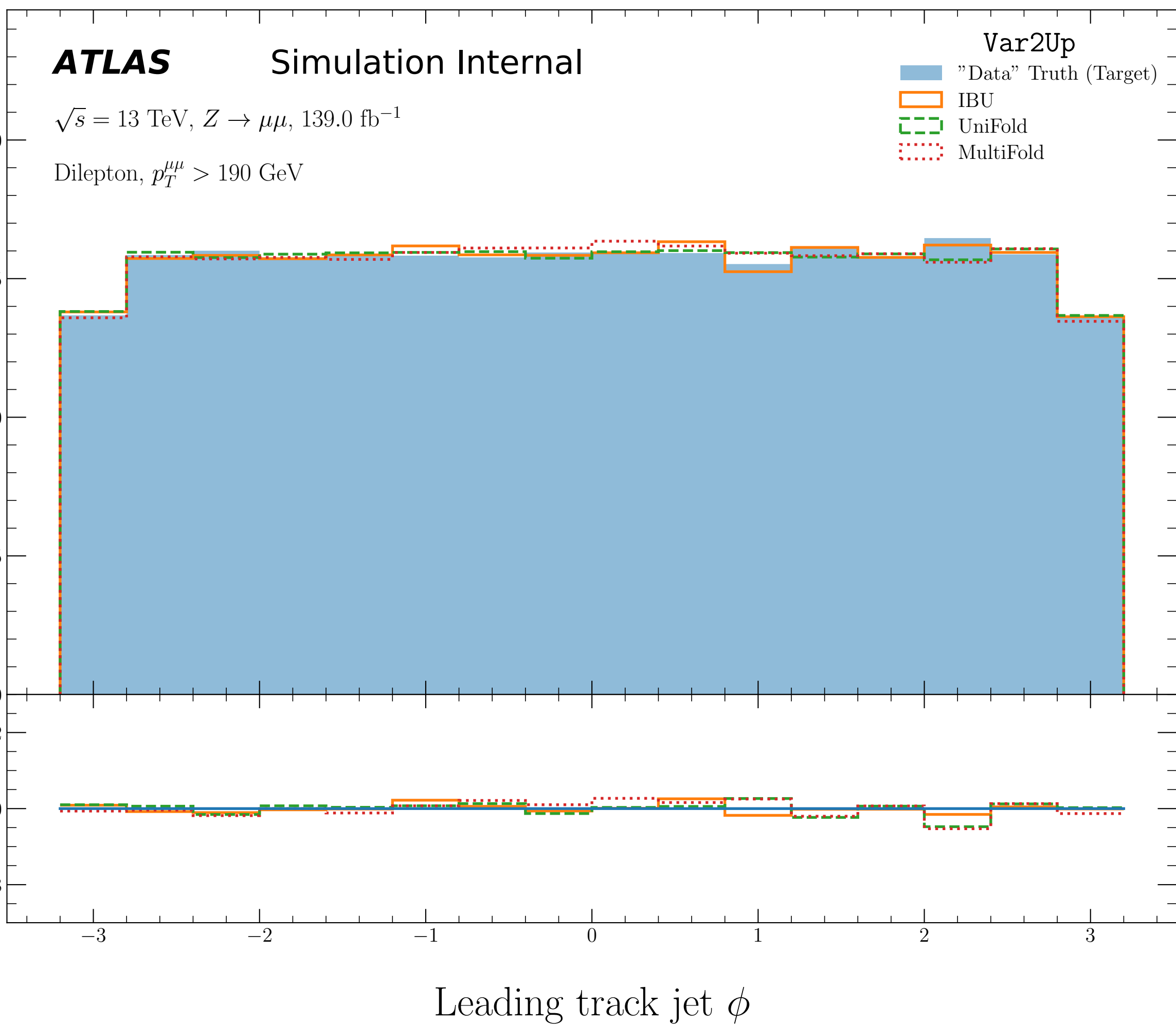
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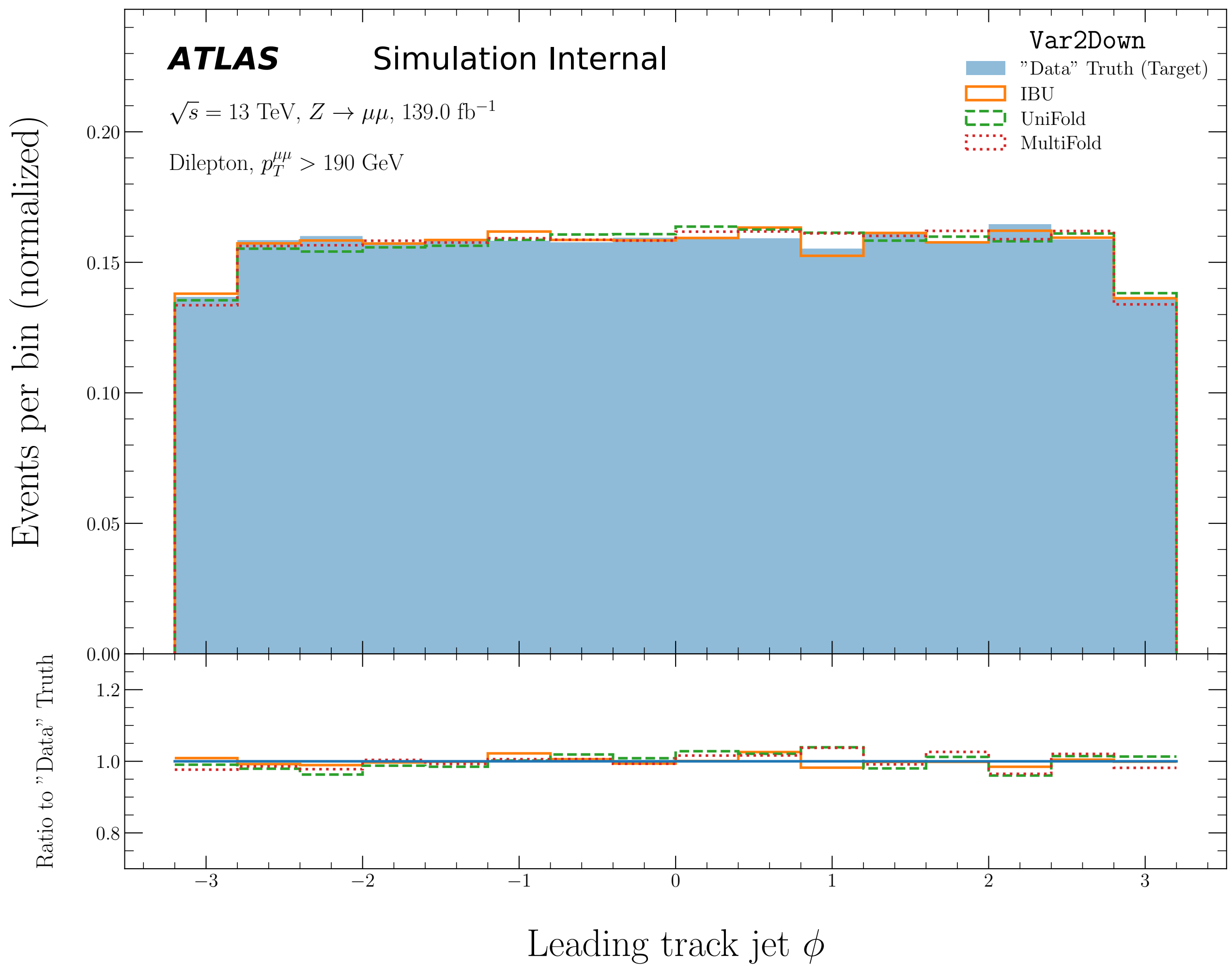
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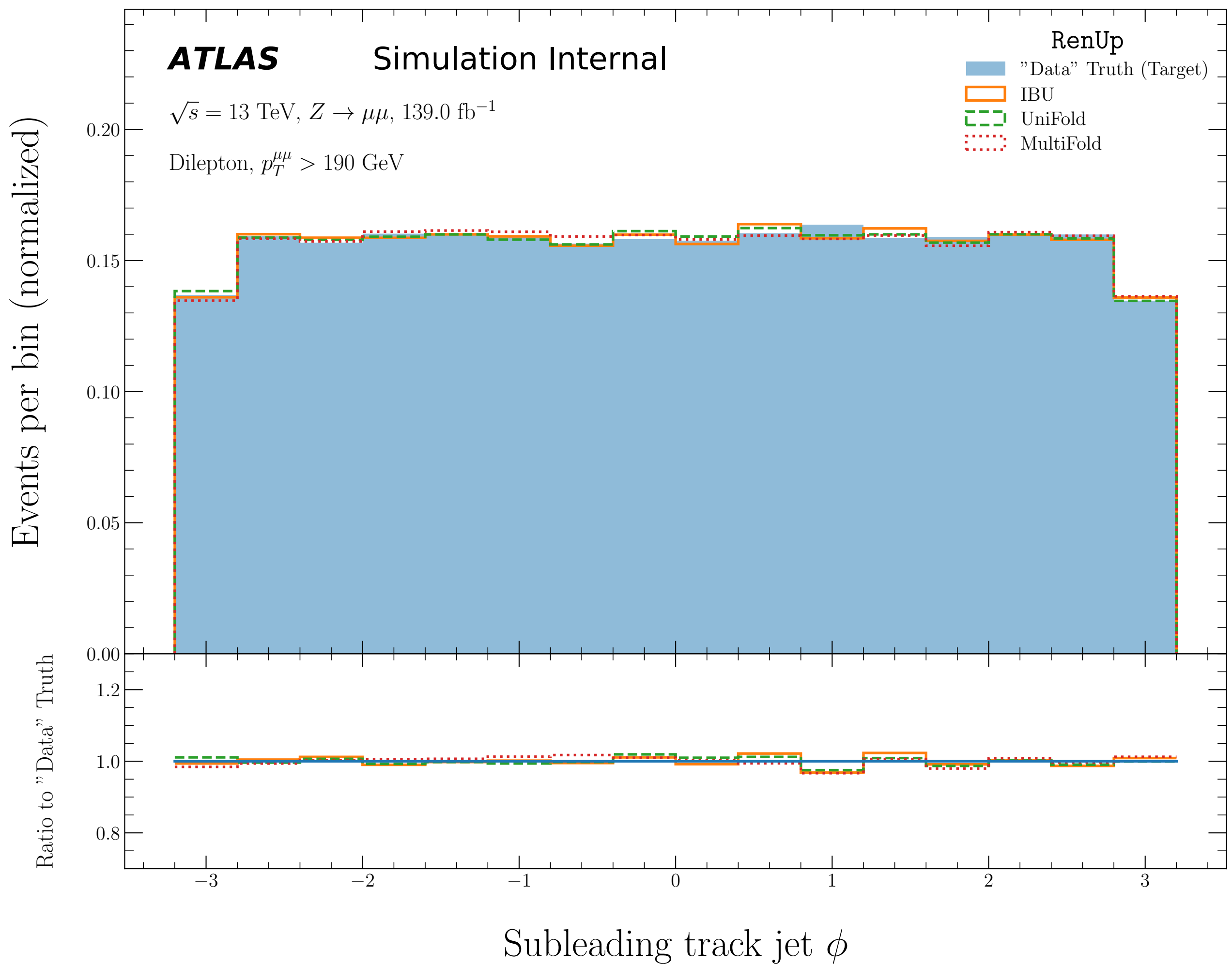
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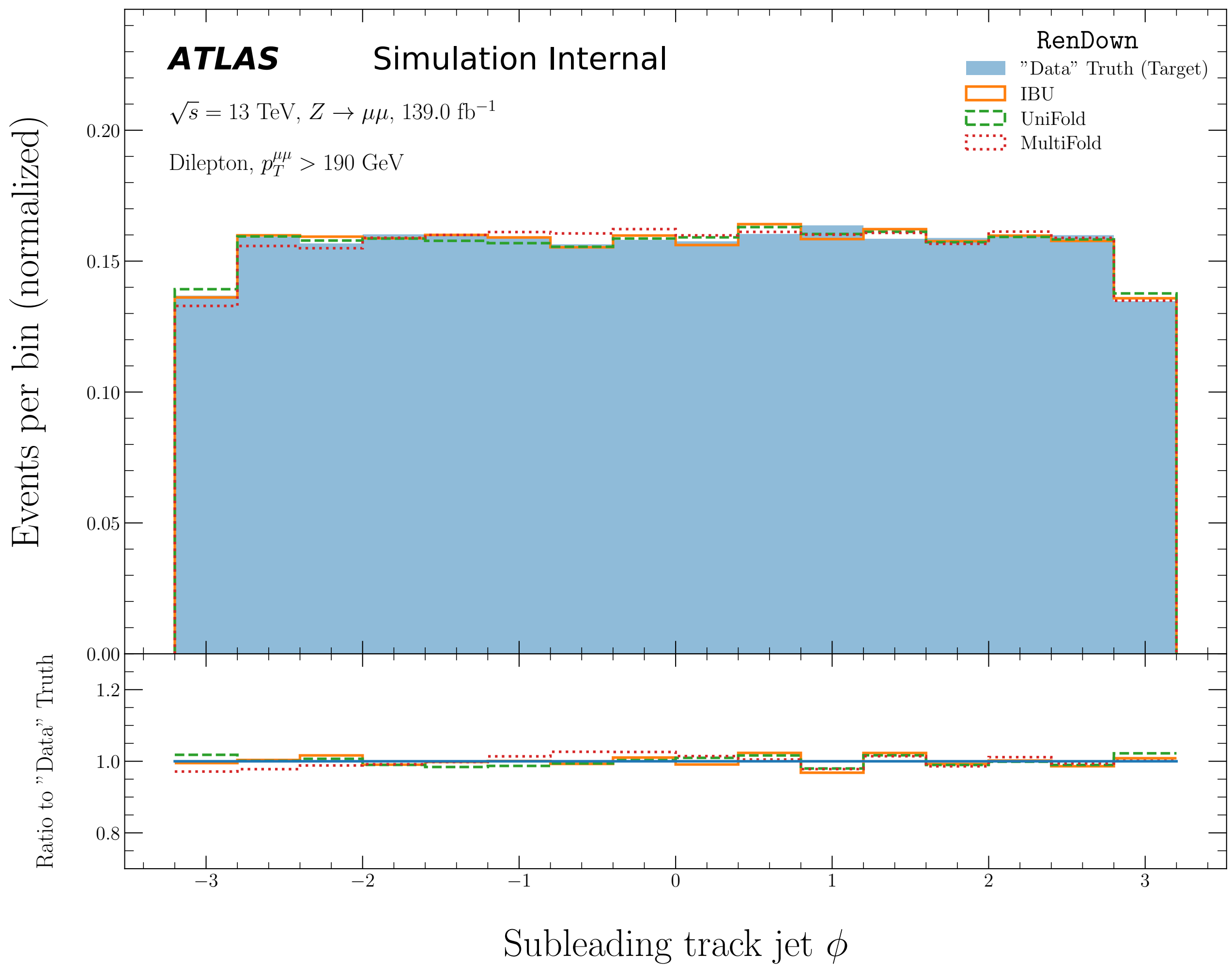
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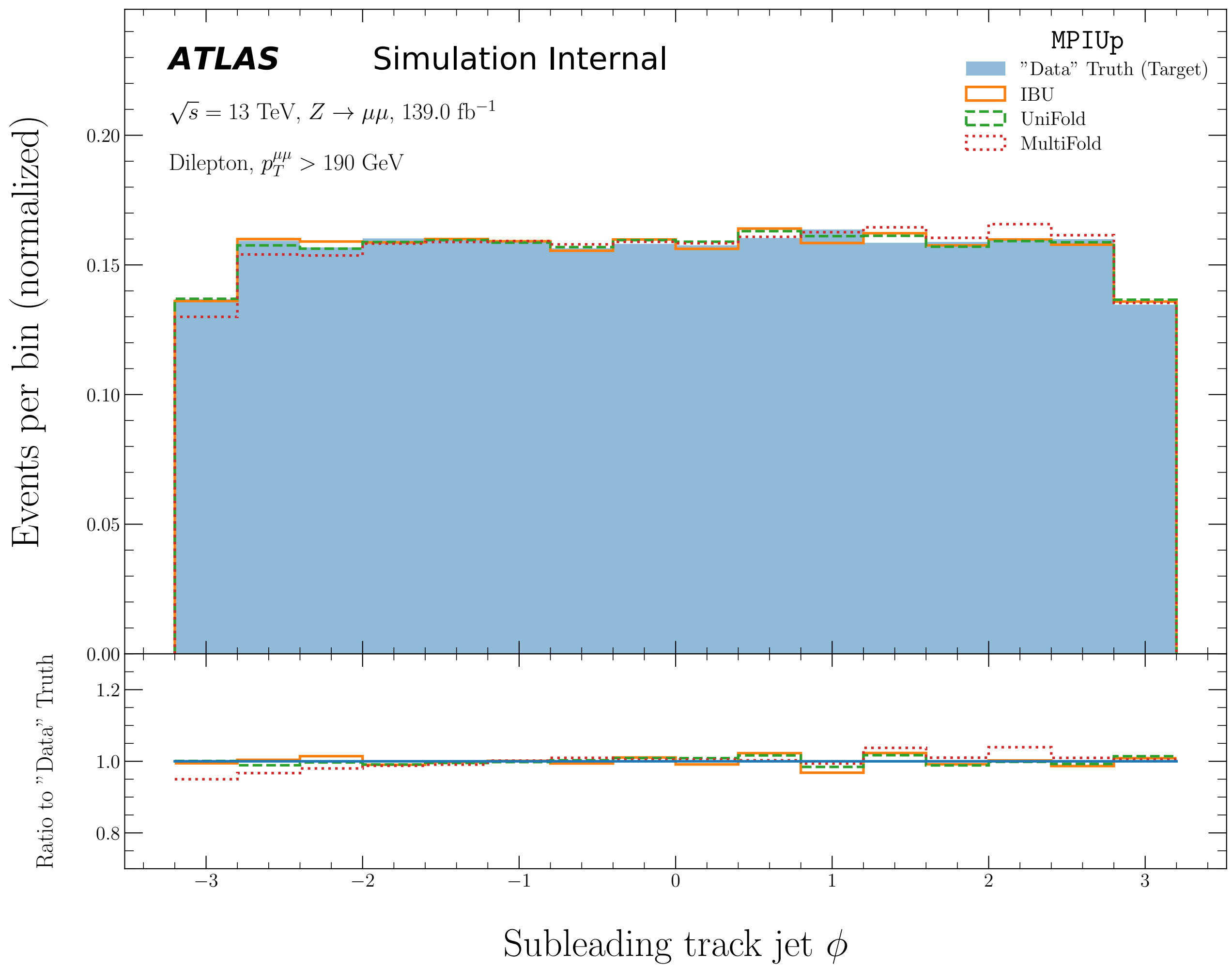
Leading track jet ϕ

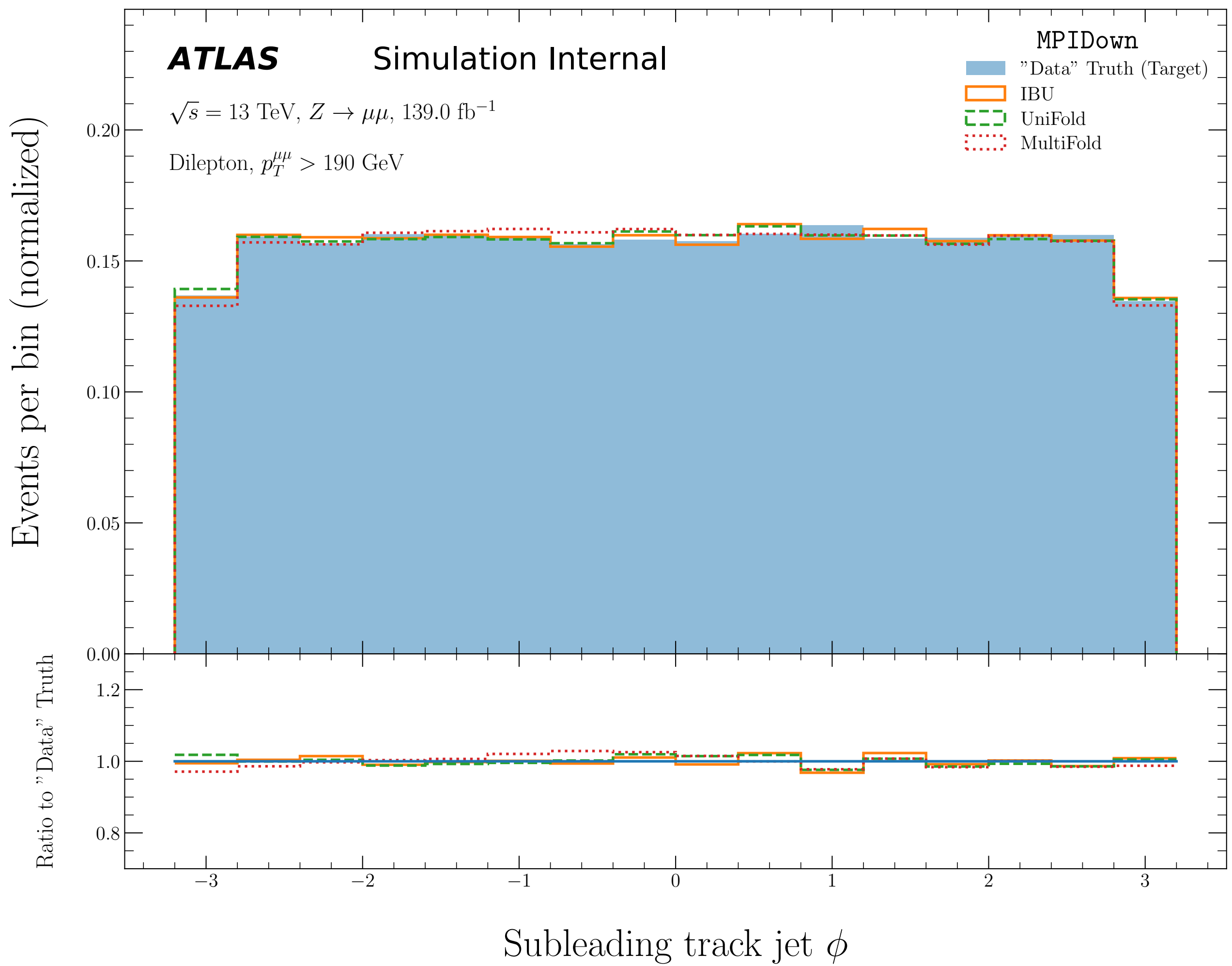


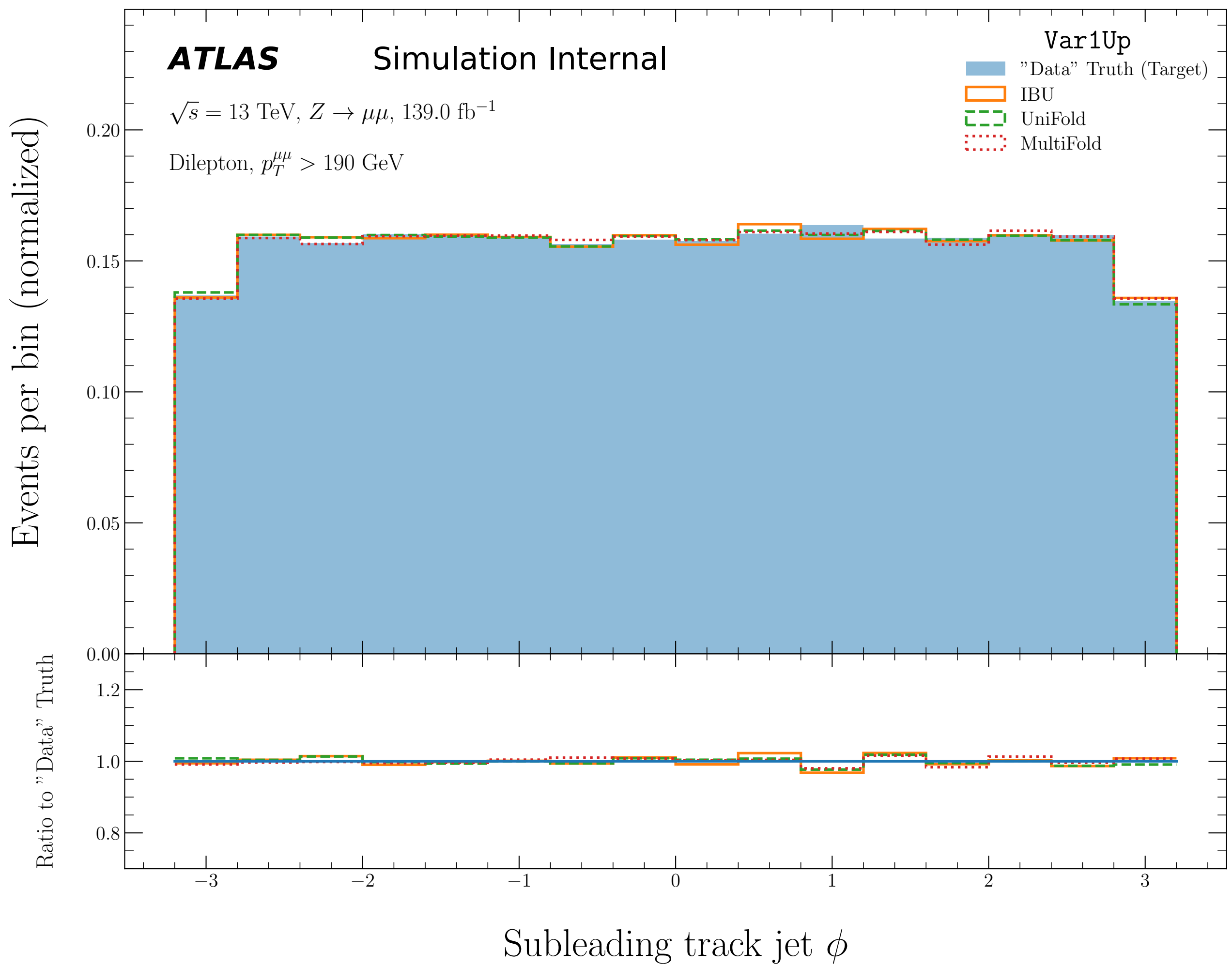


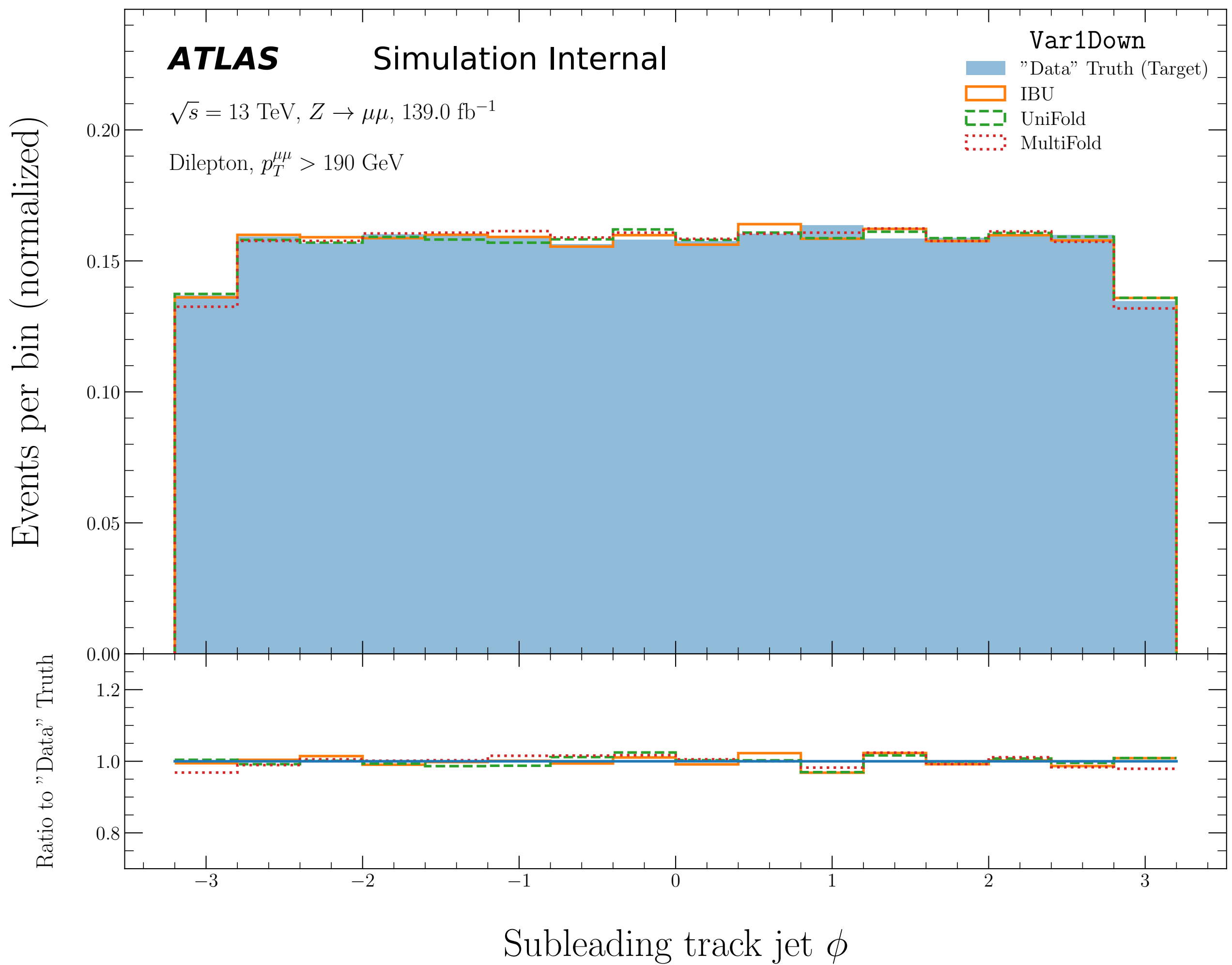


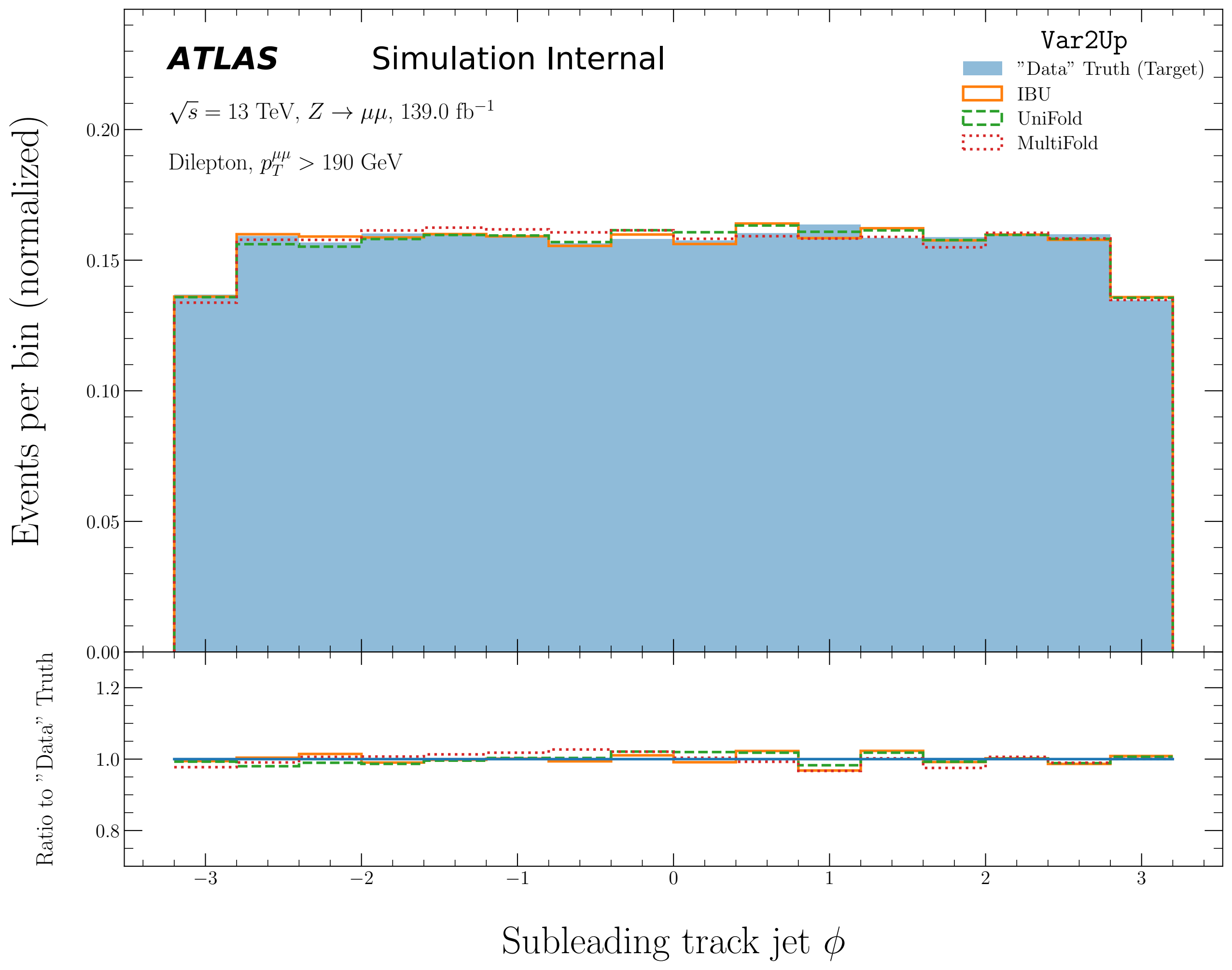


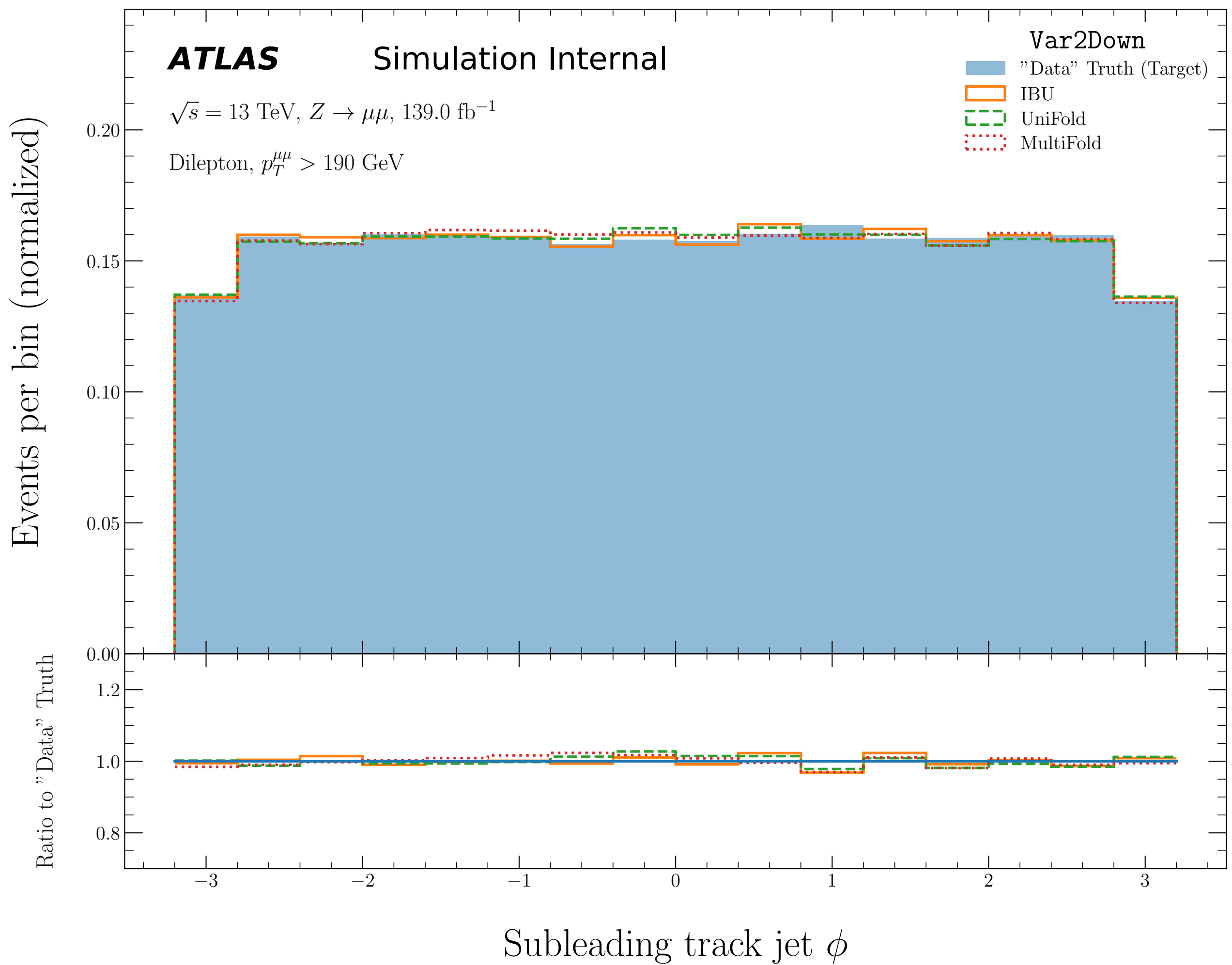


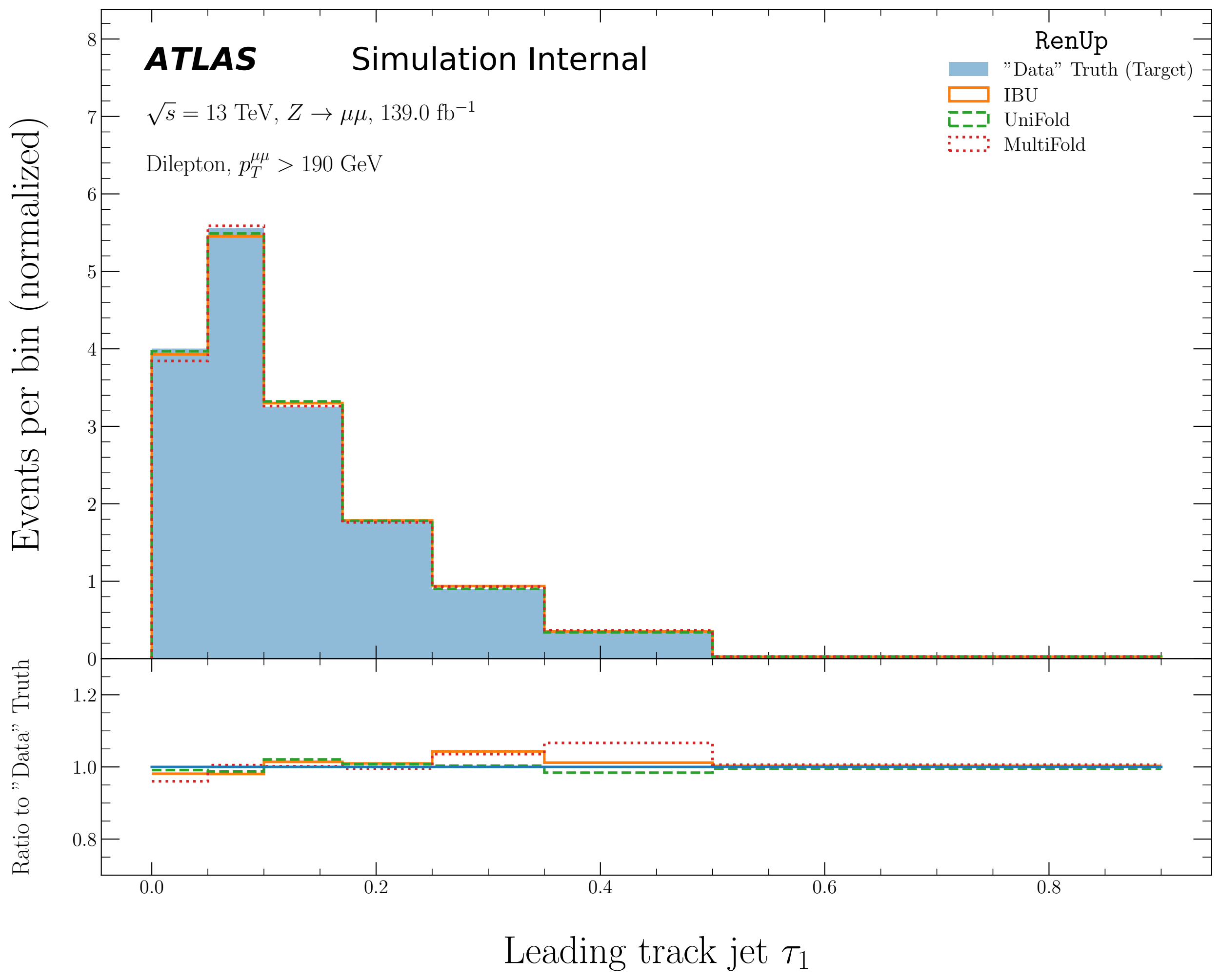


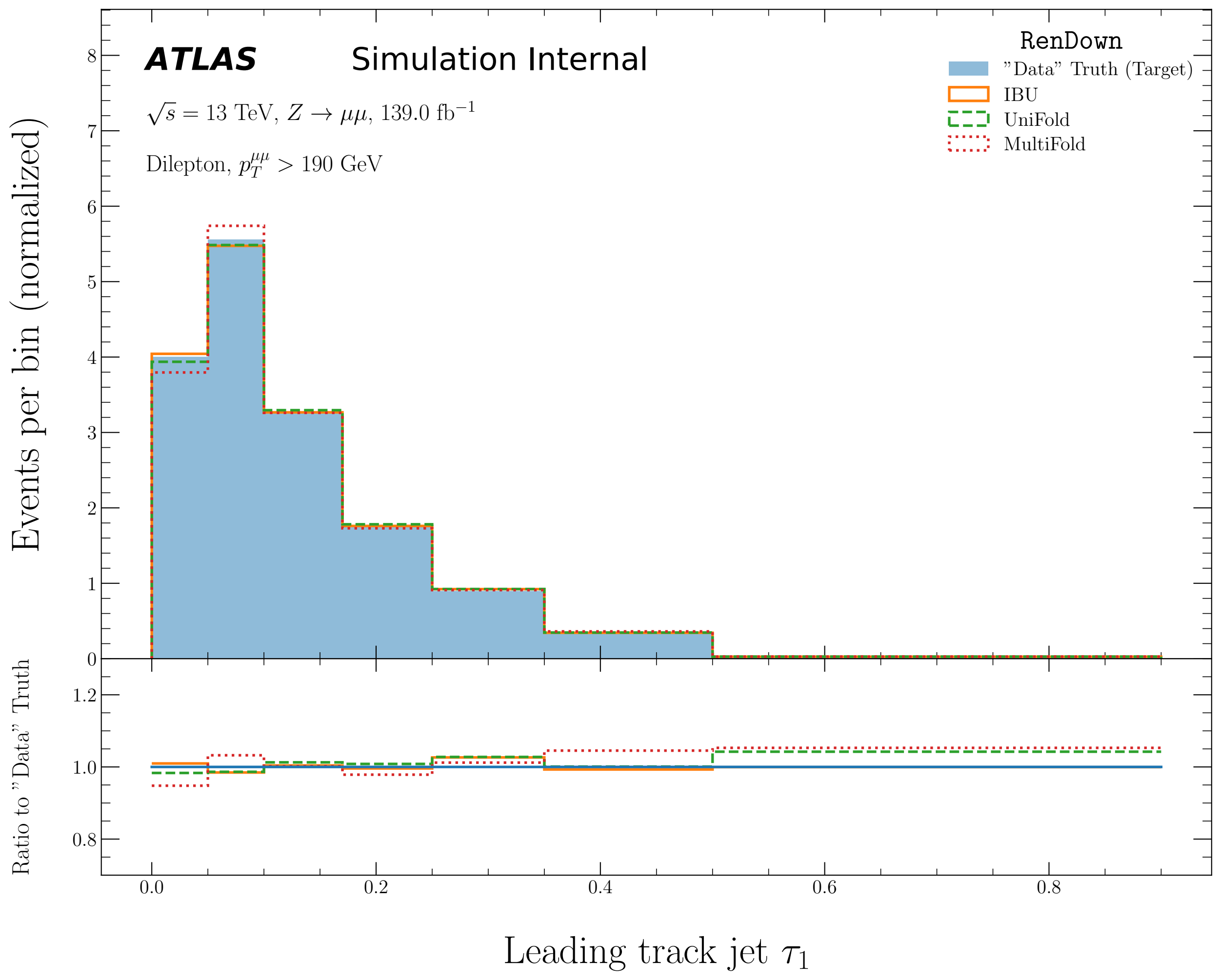


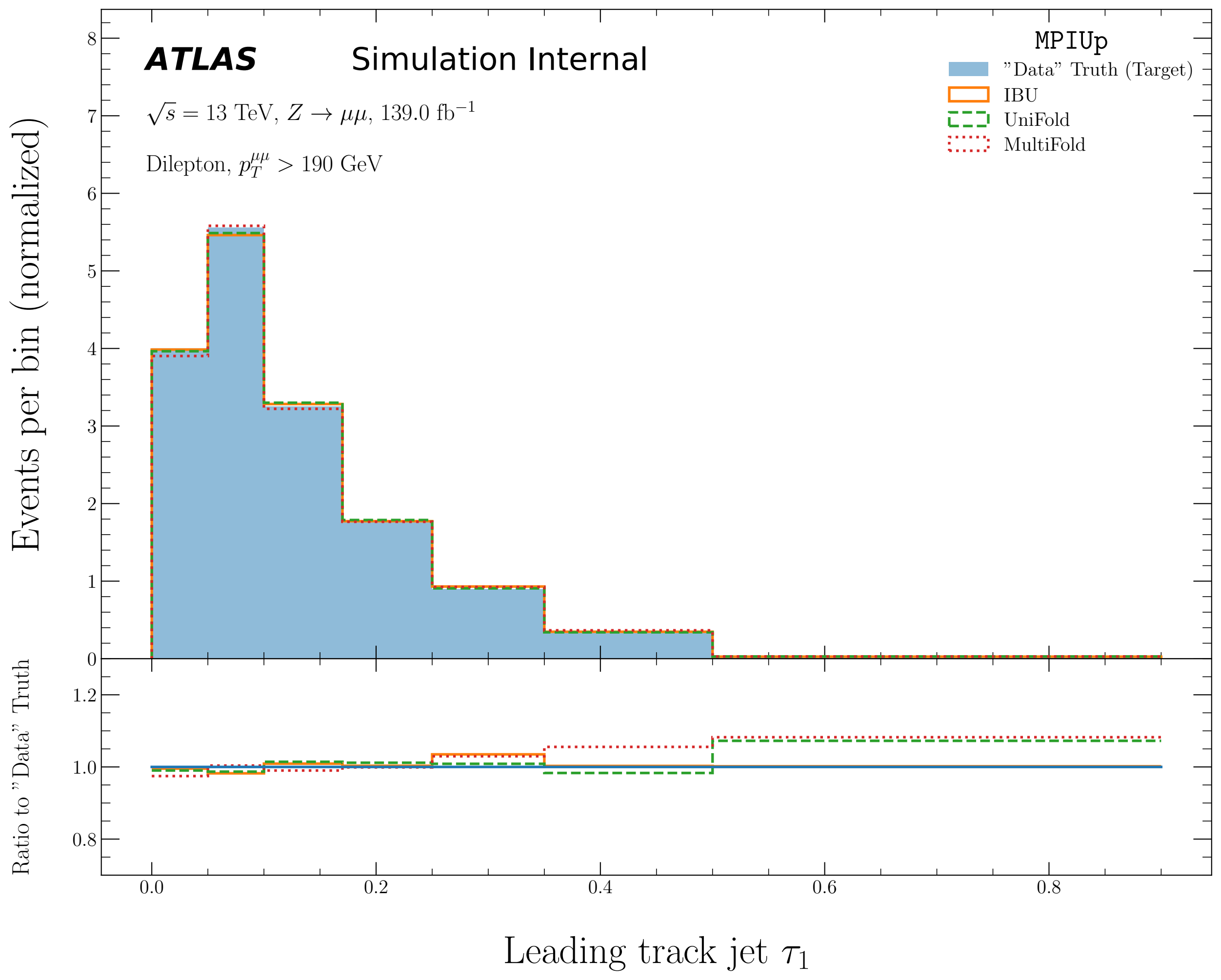


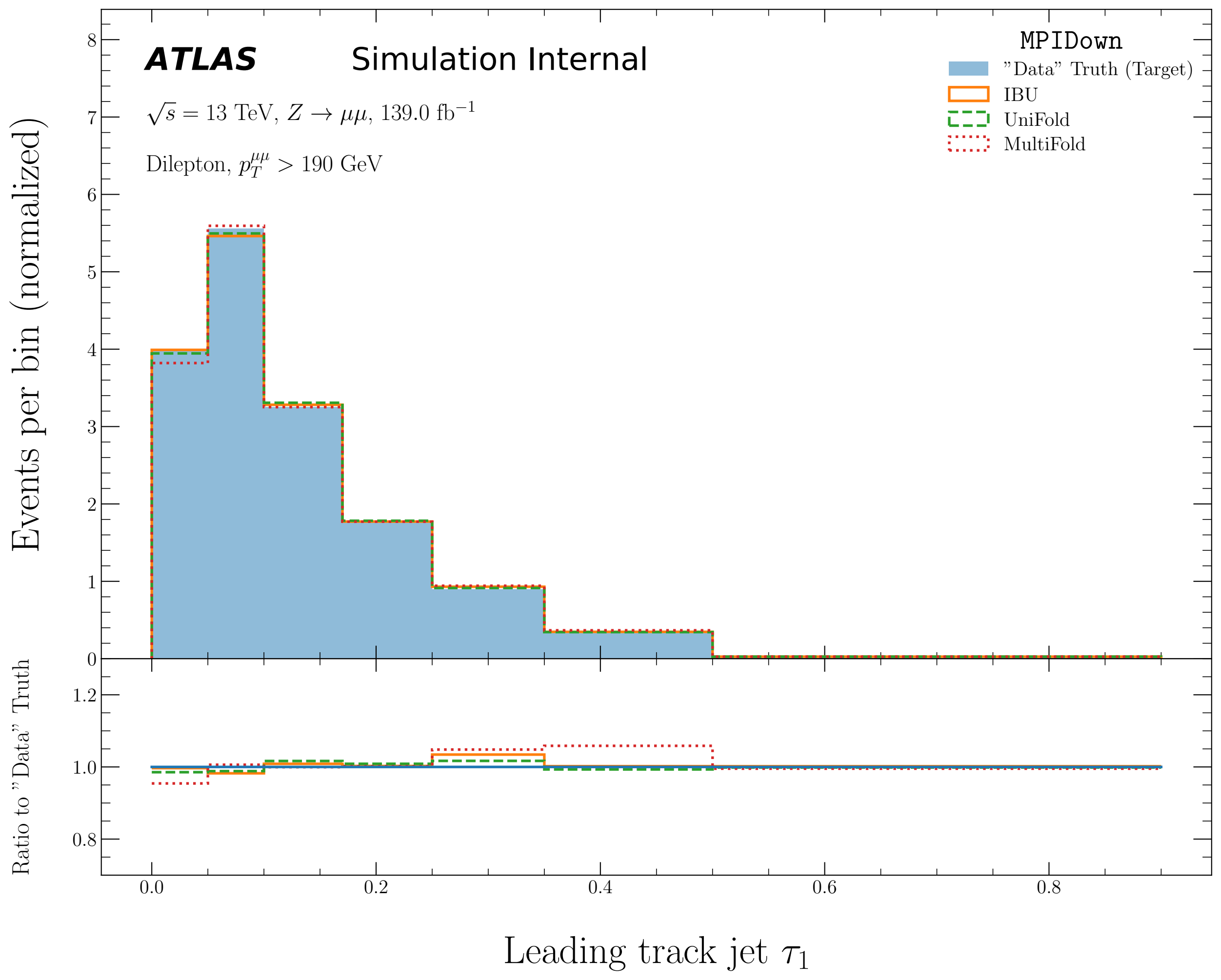


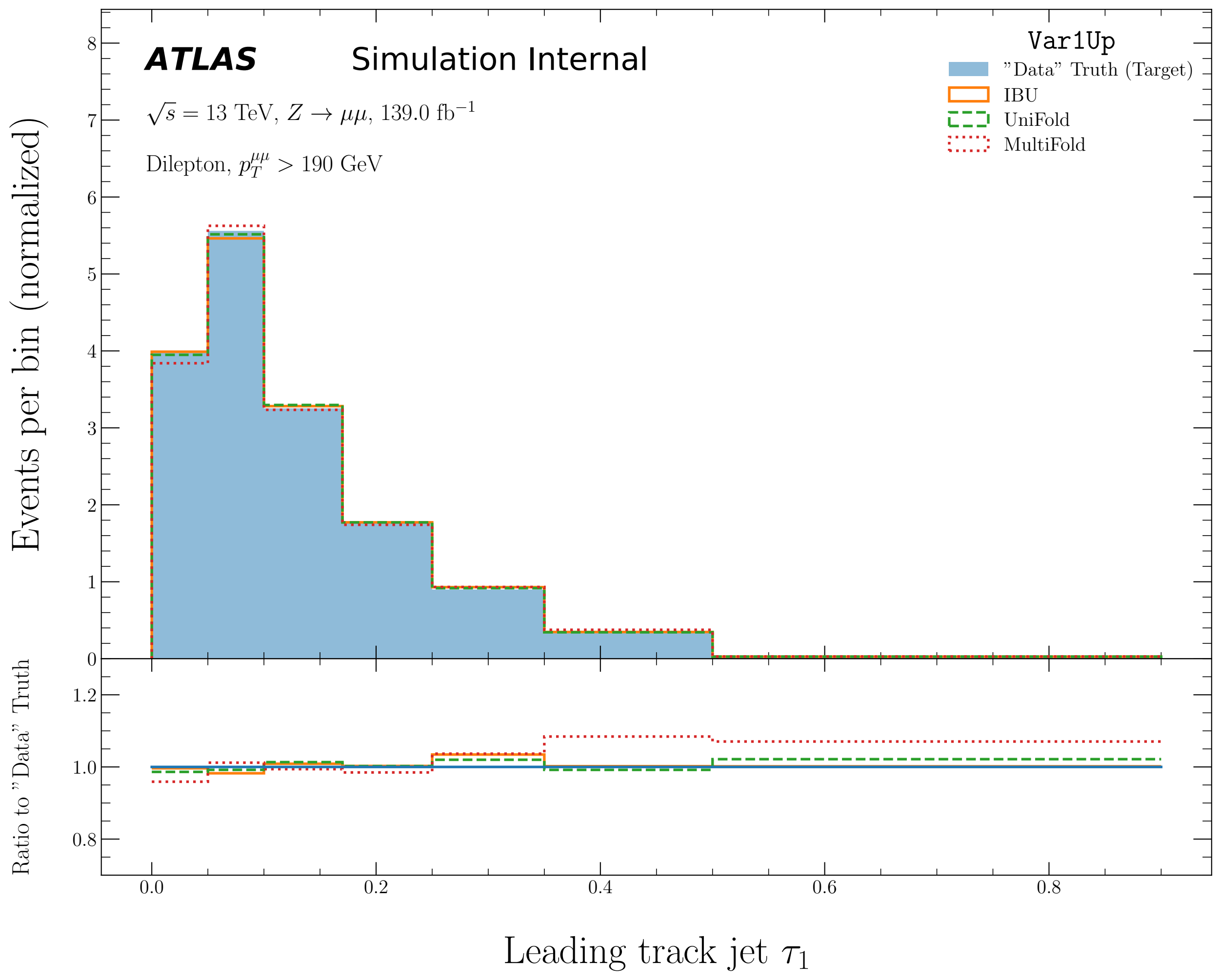


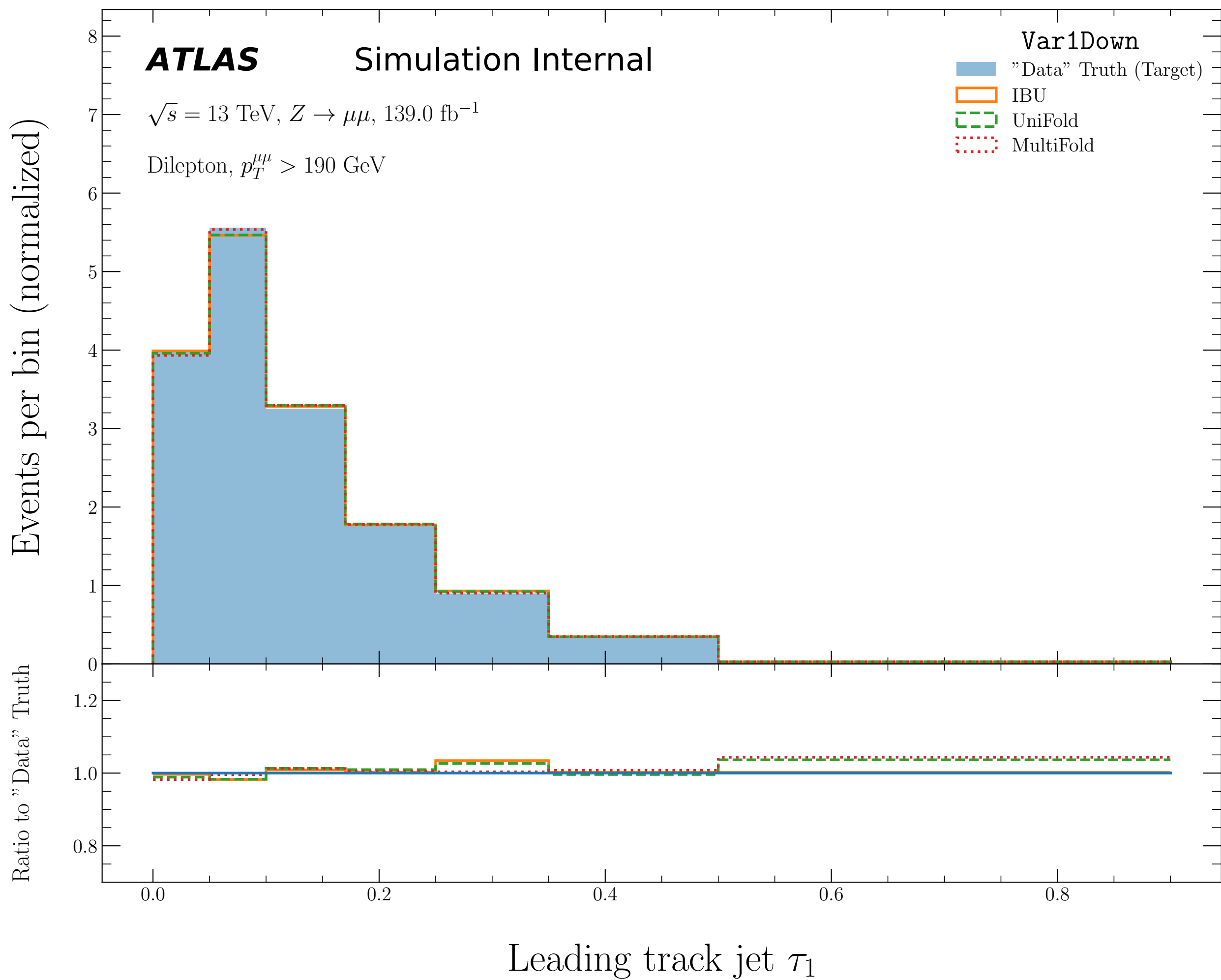


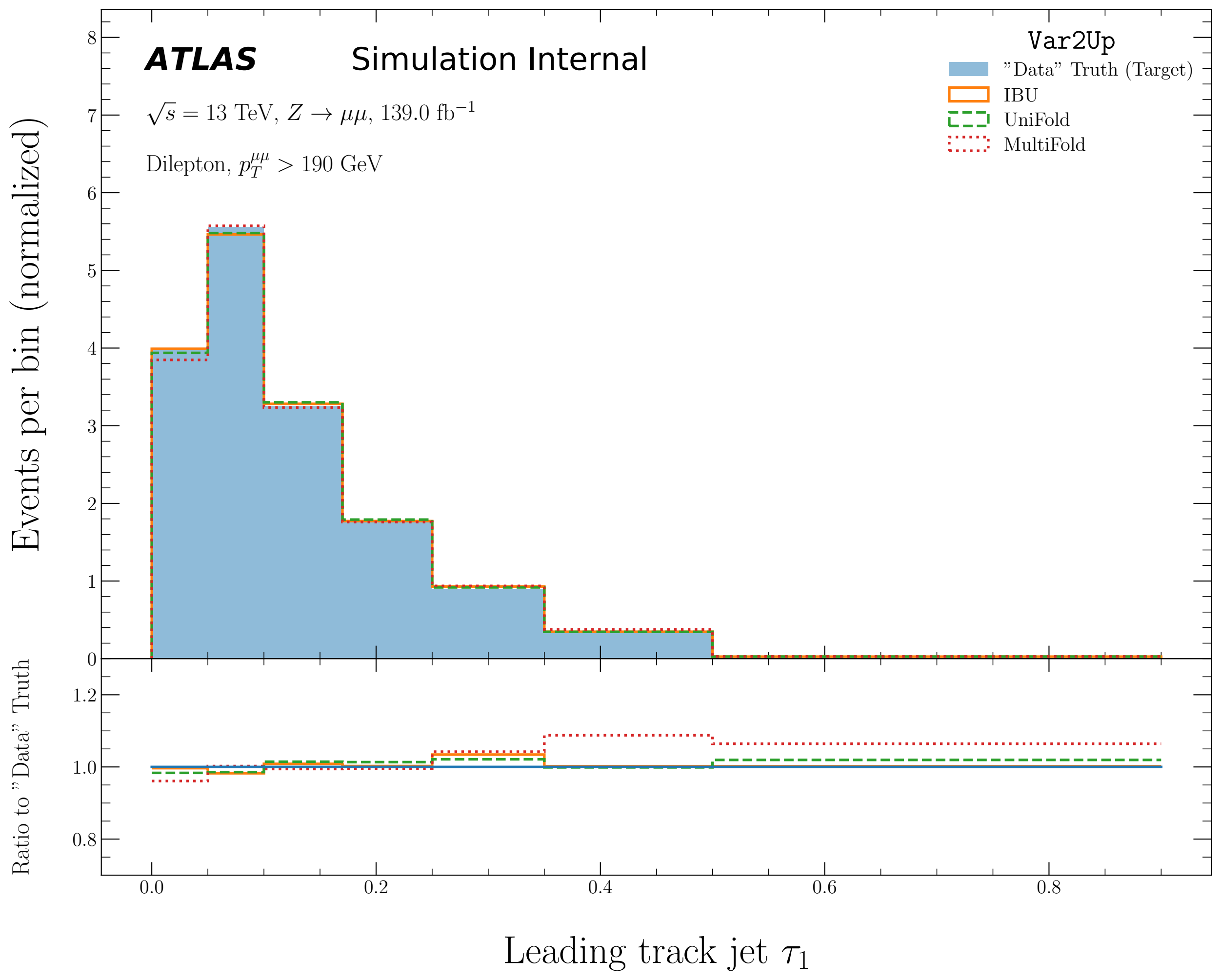


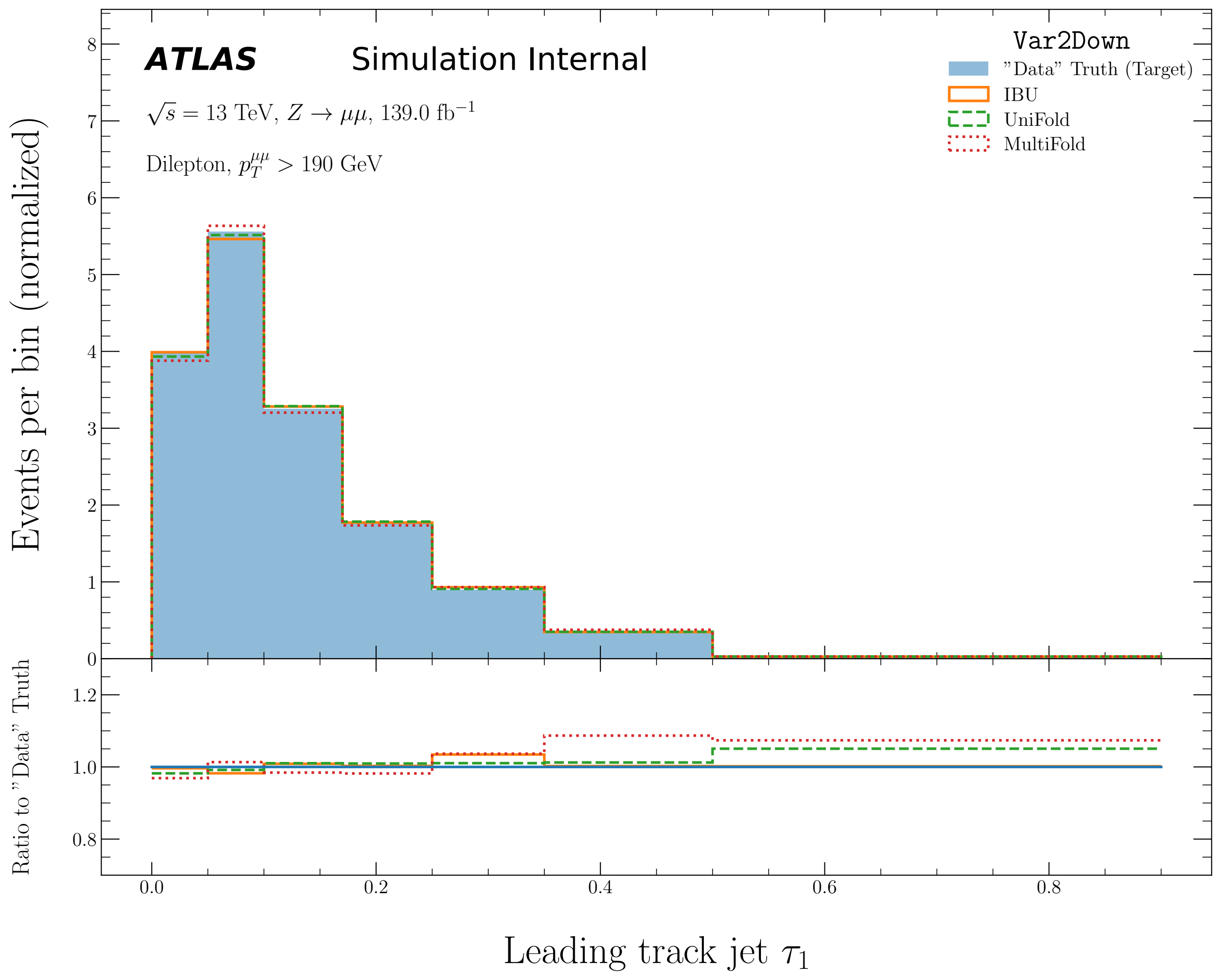


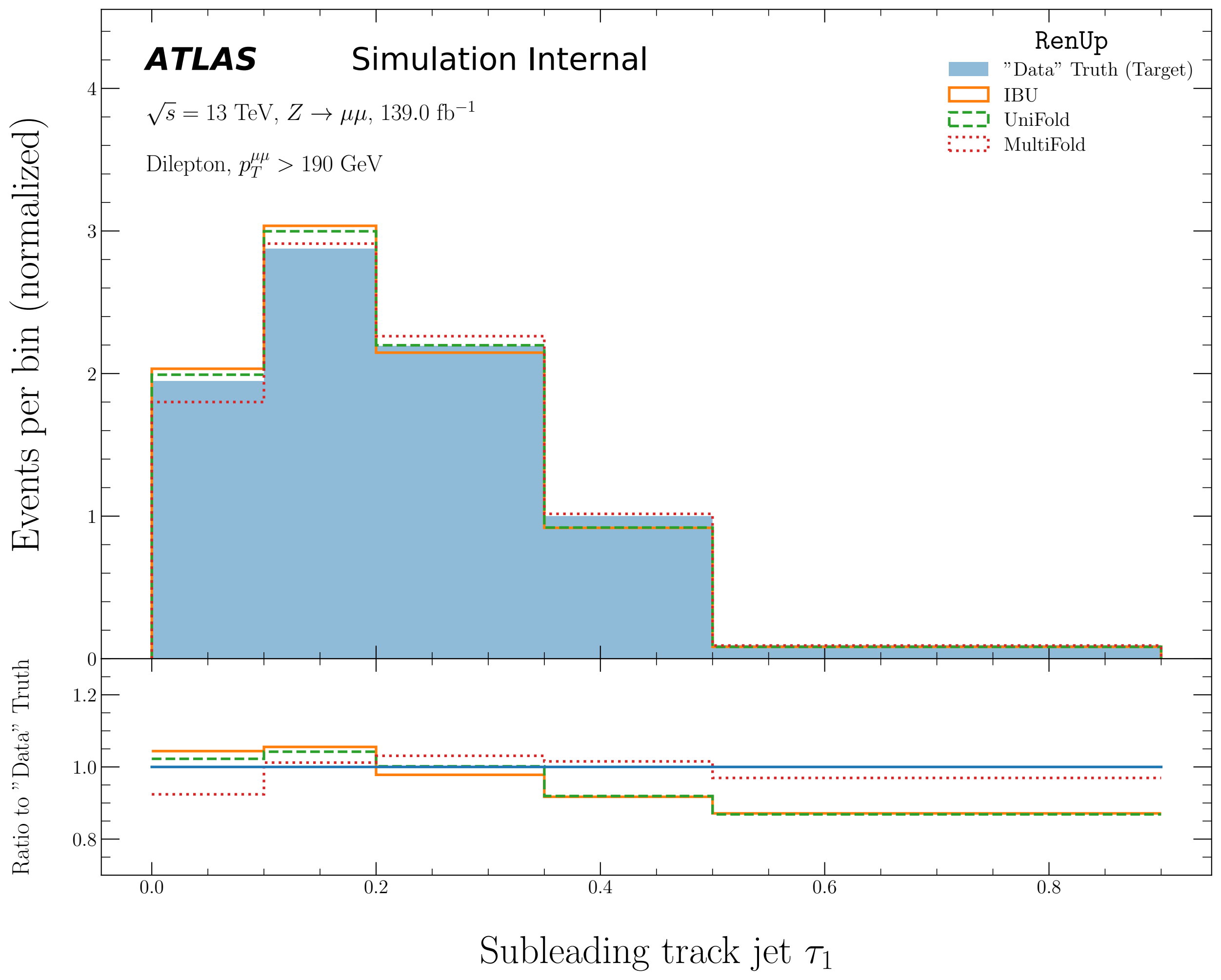


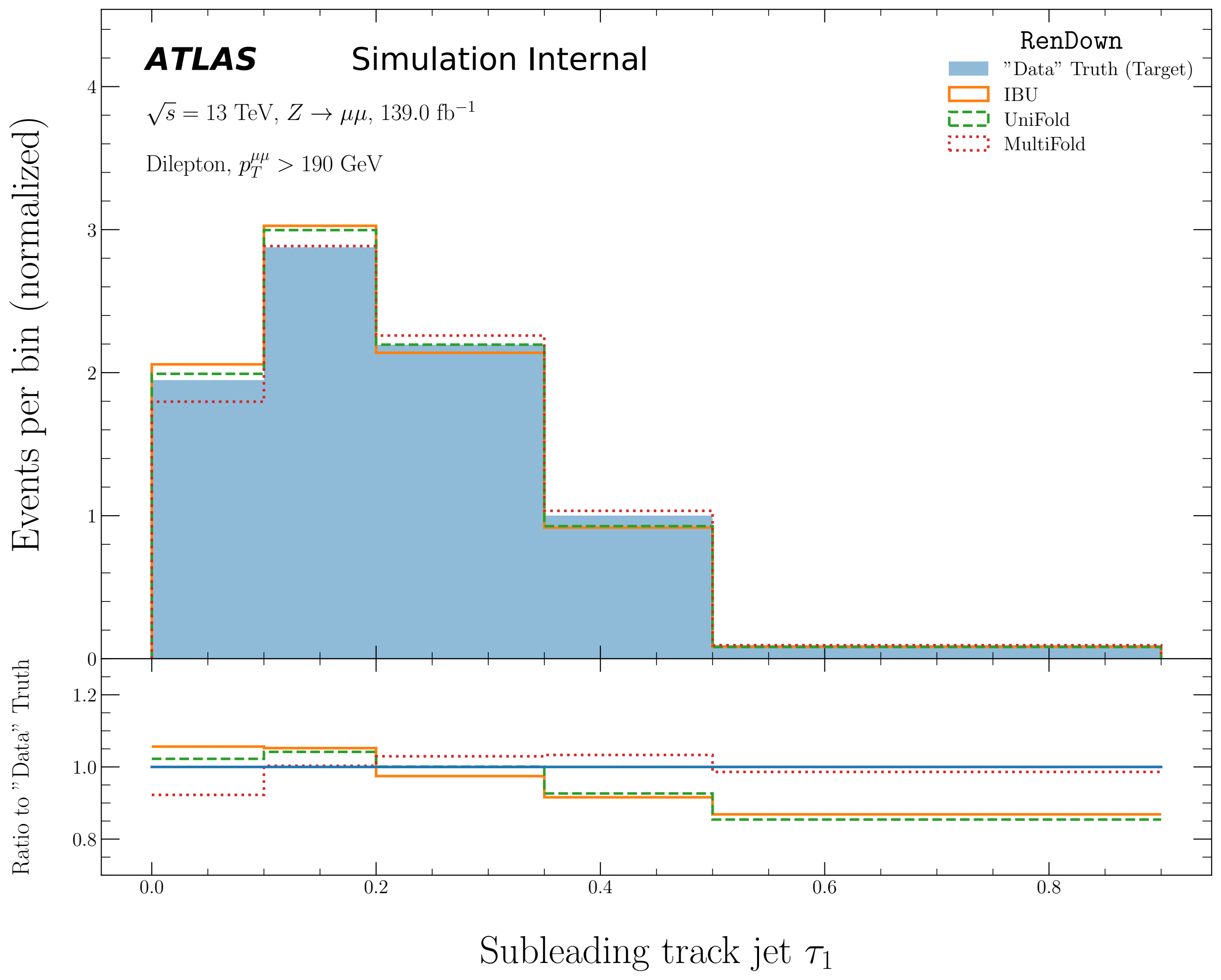


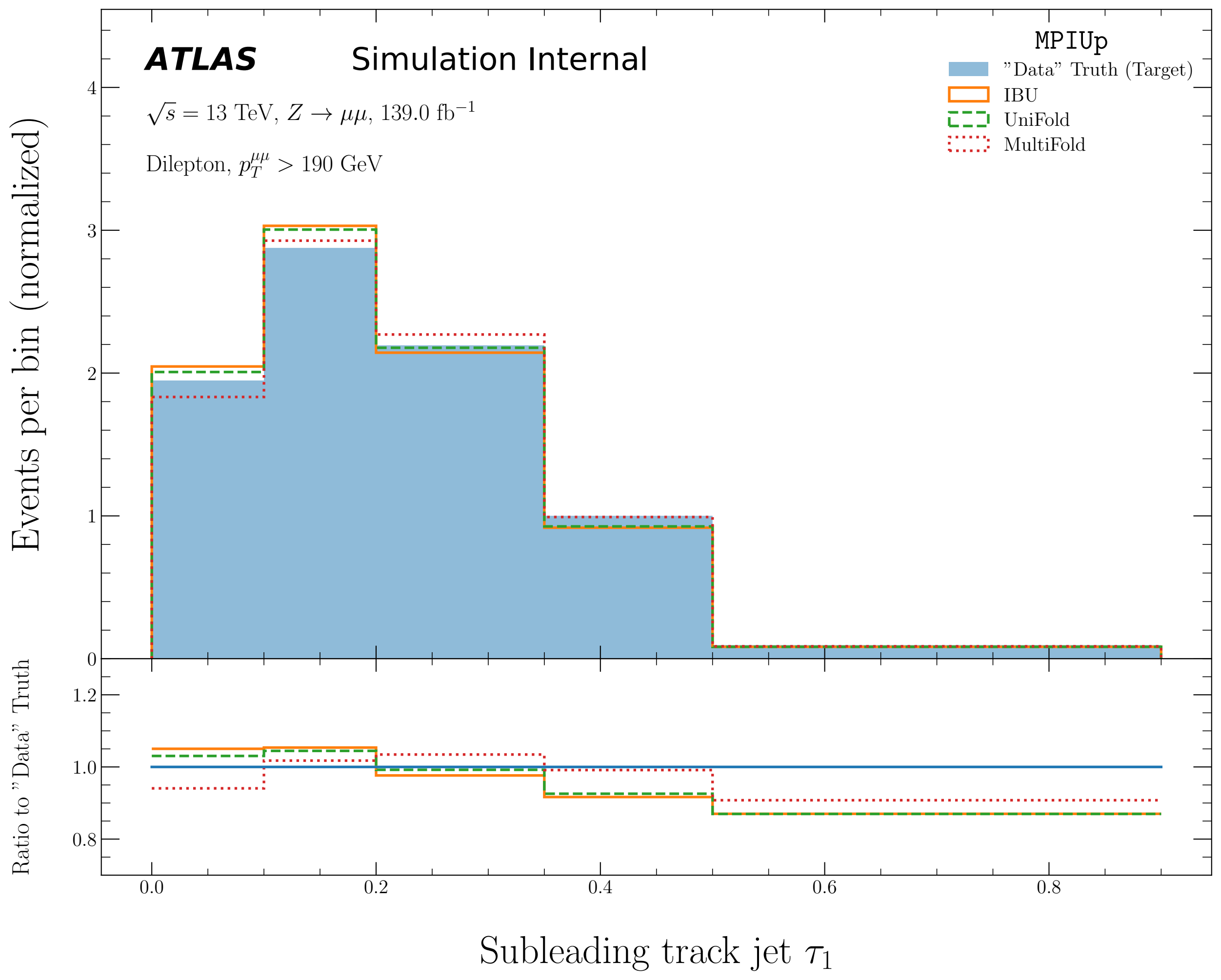


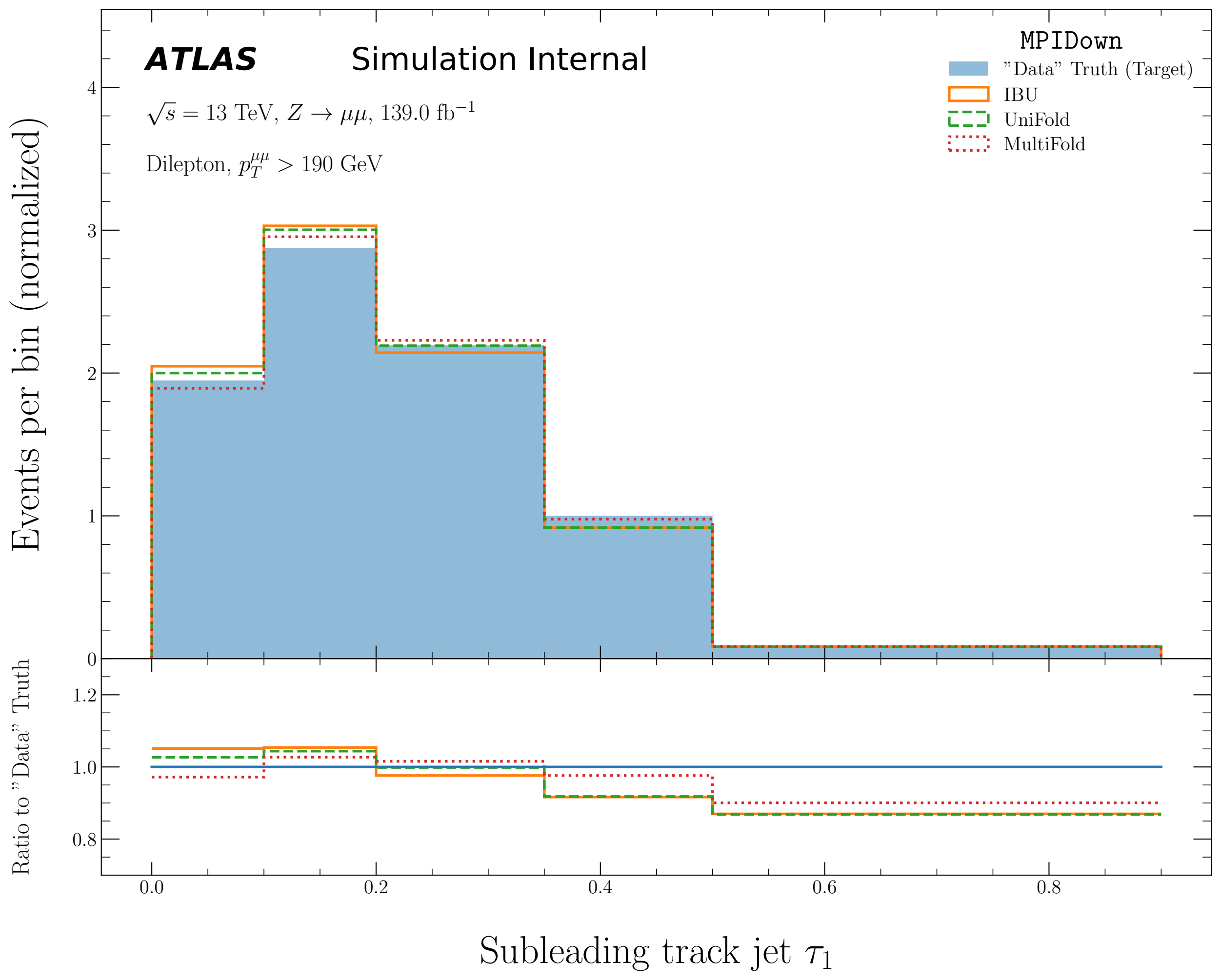


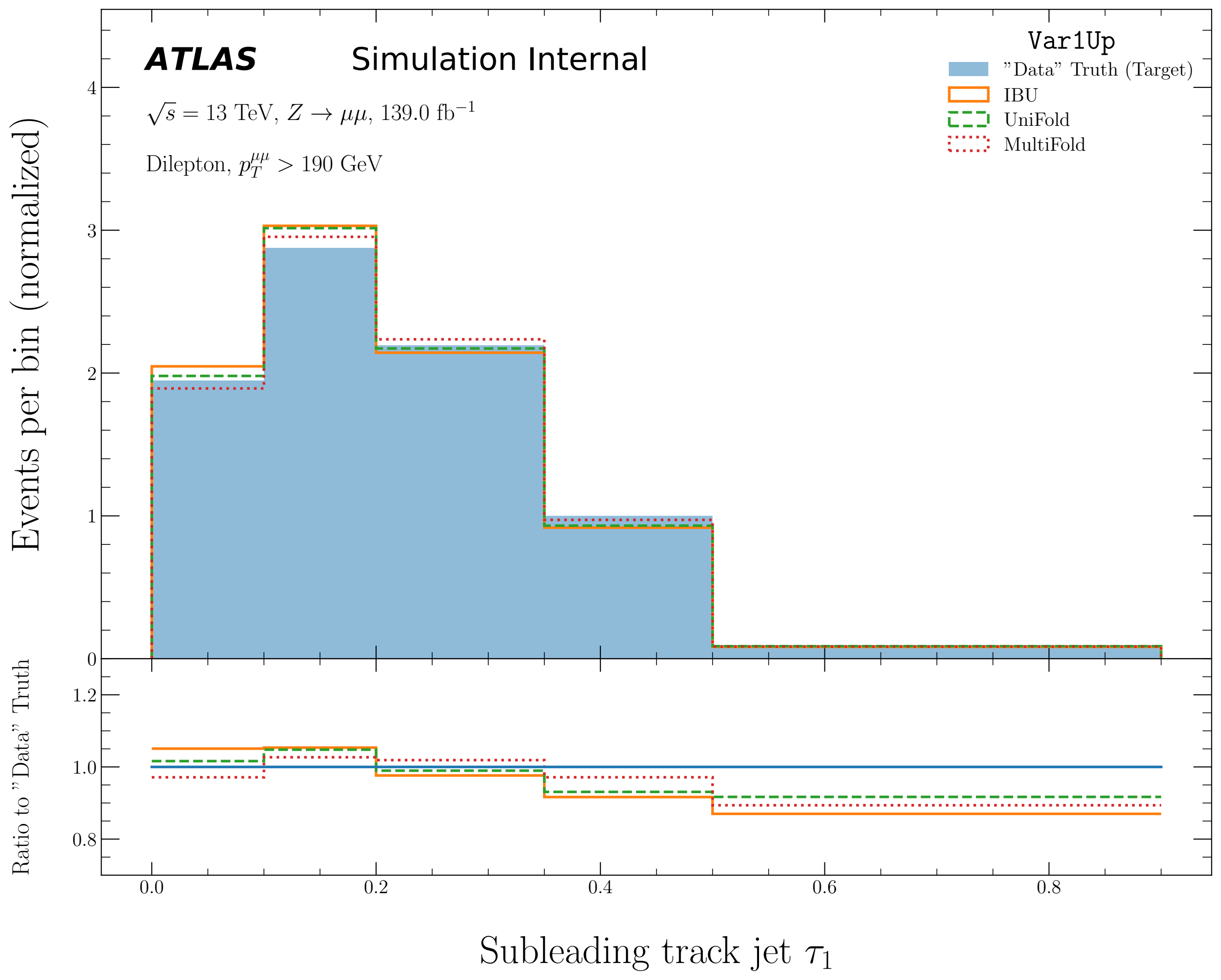


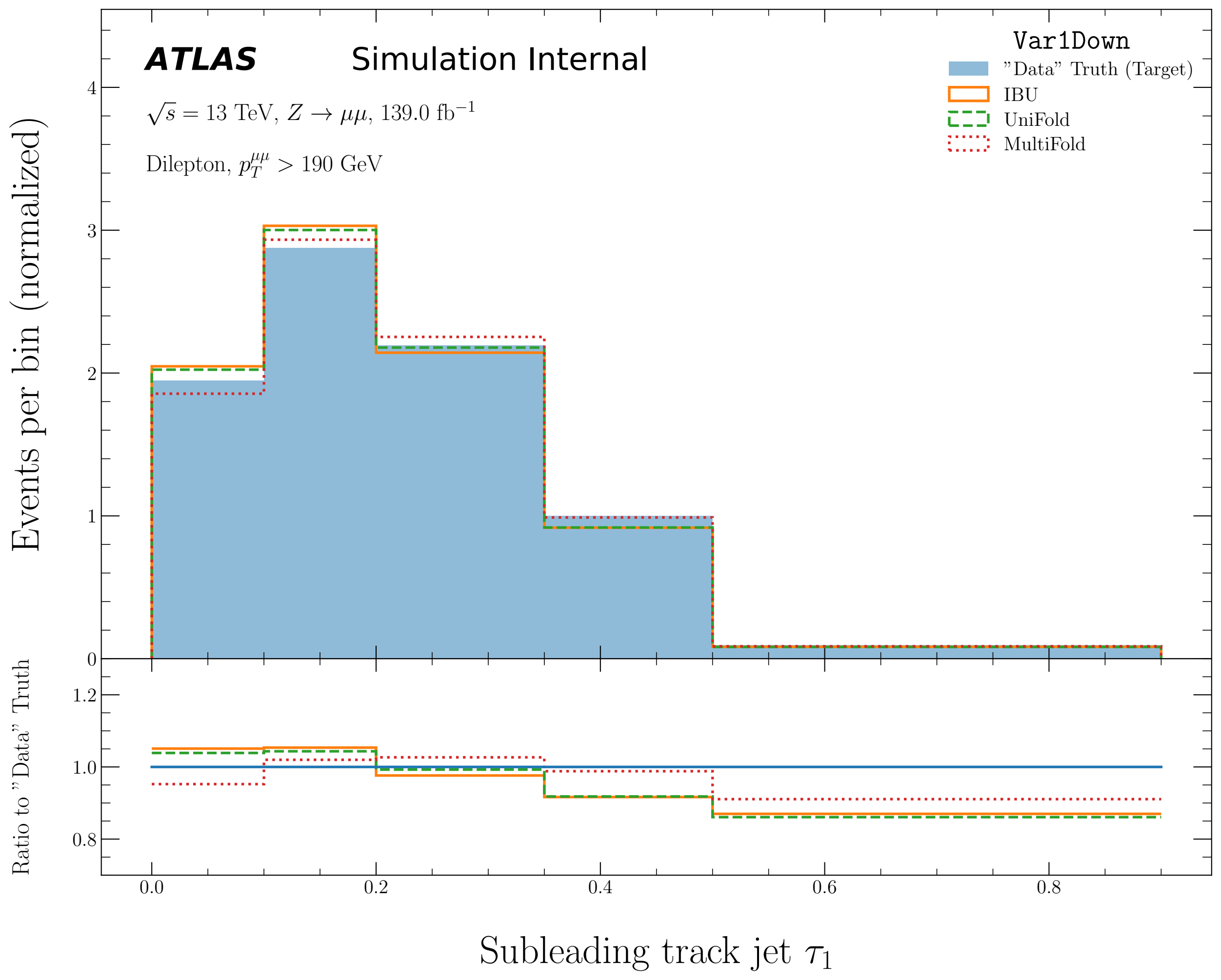


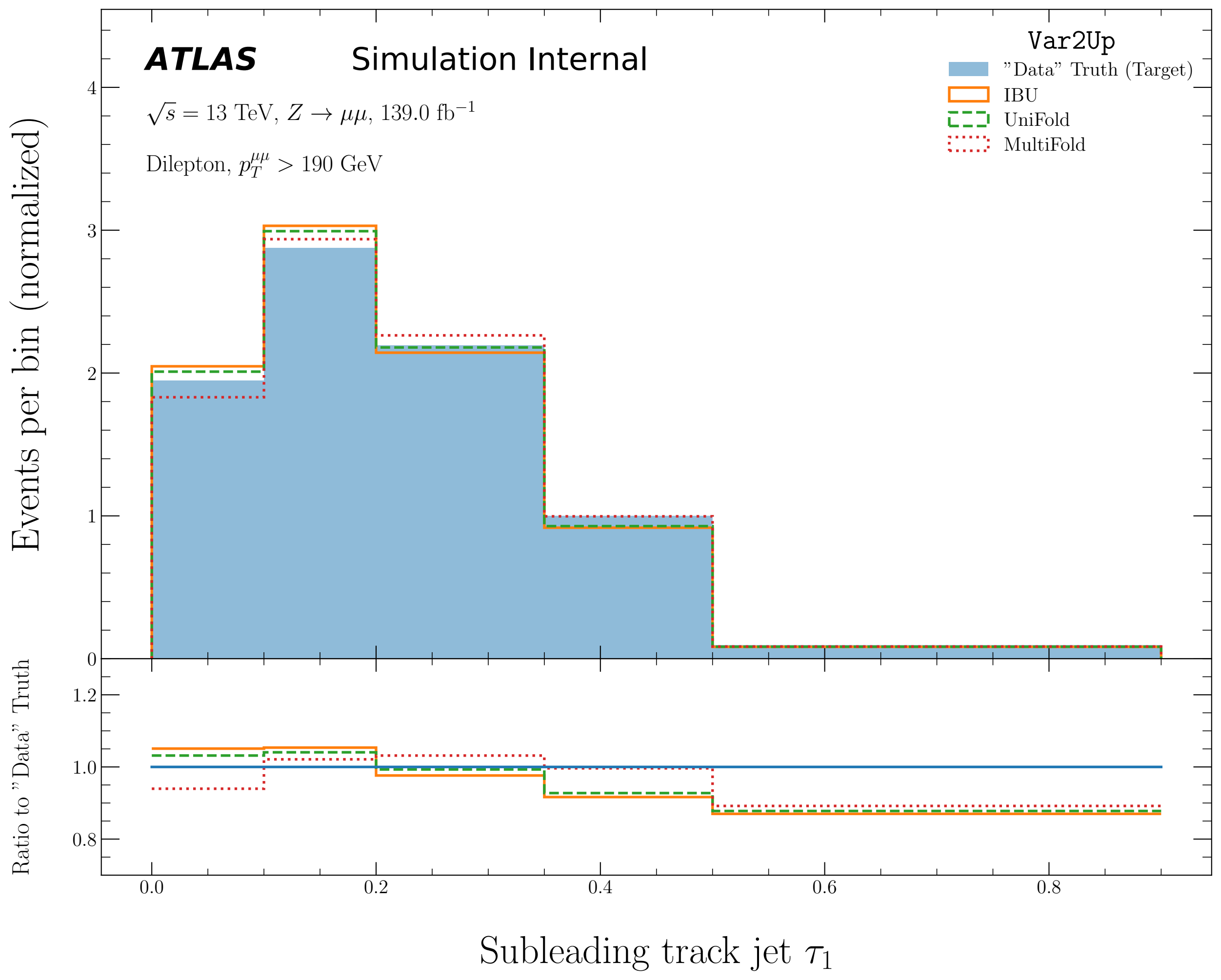


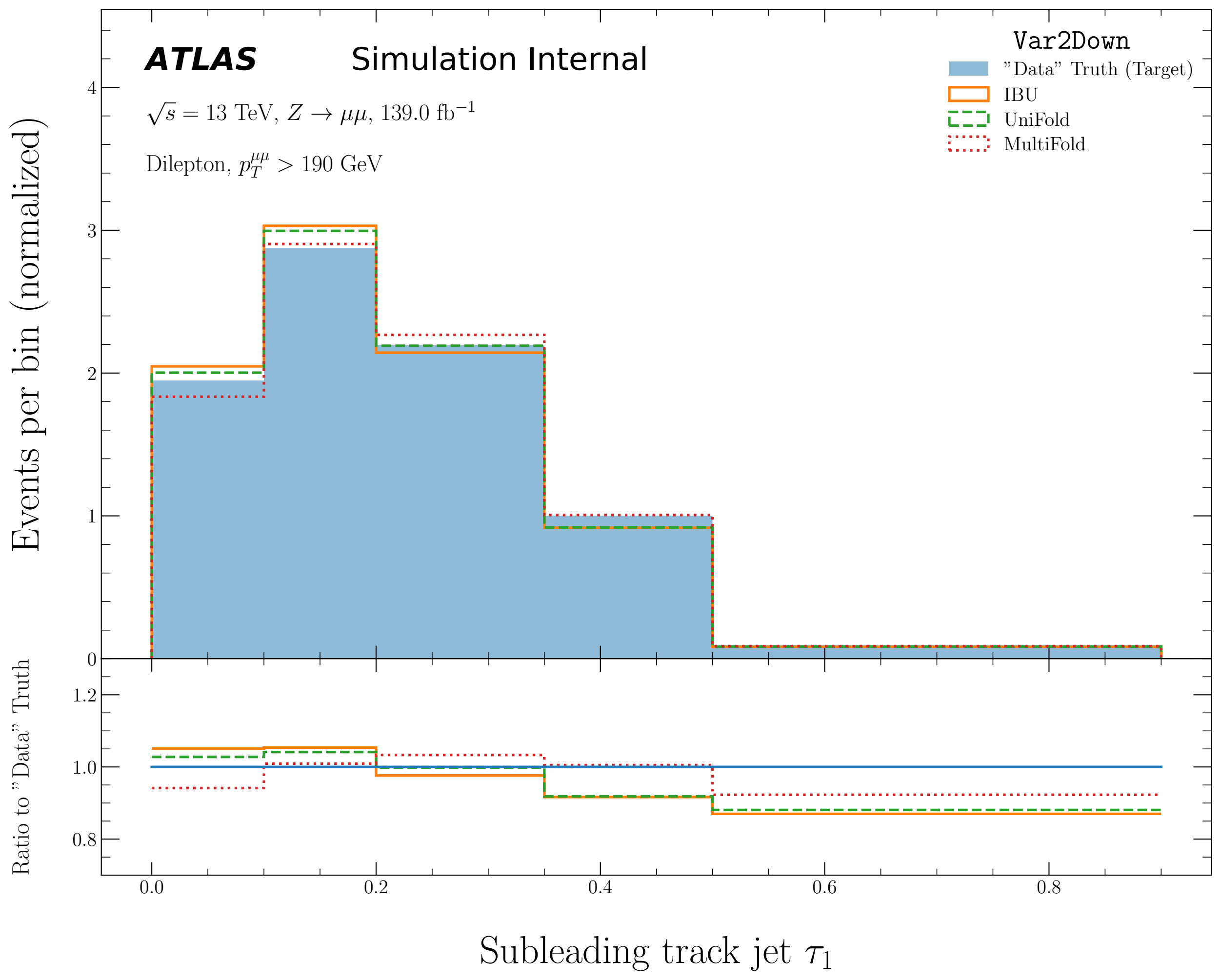


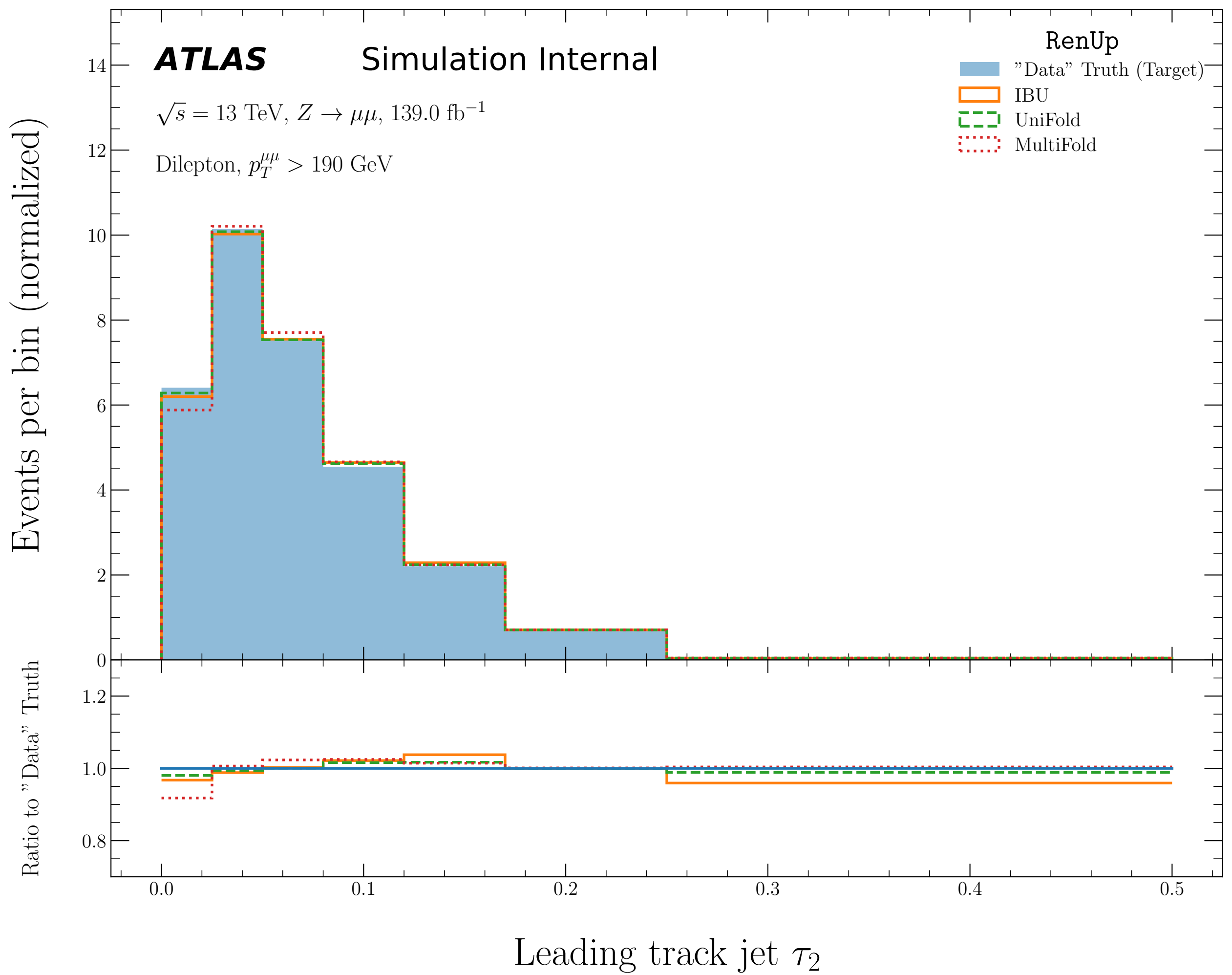


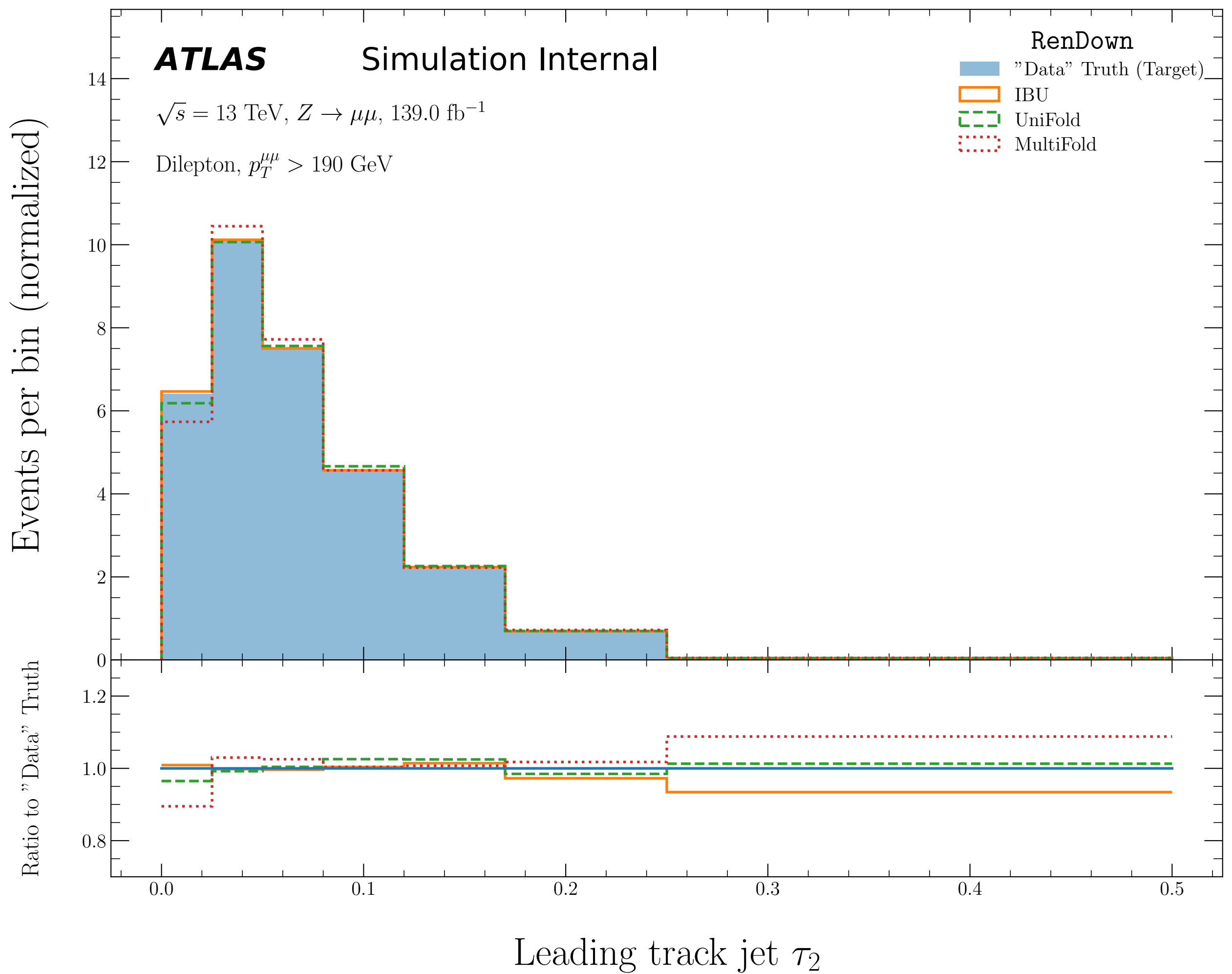


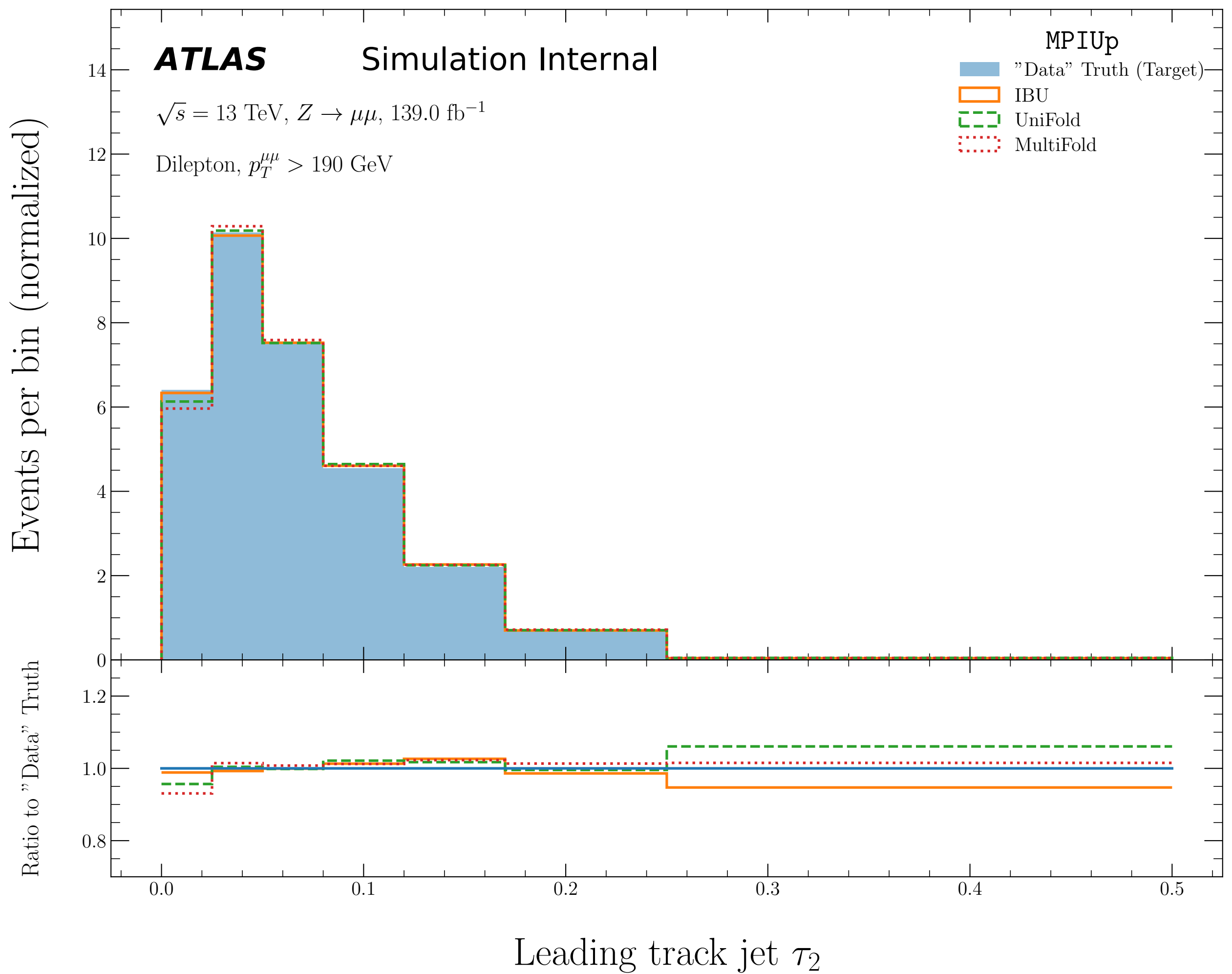


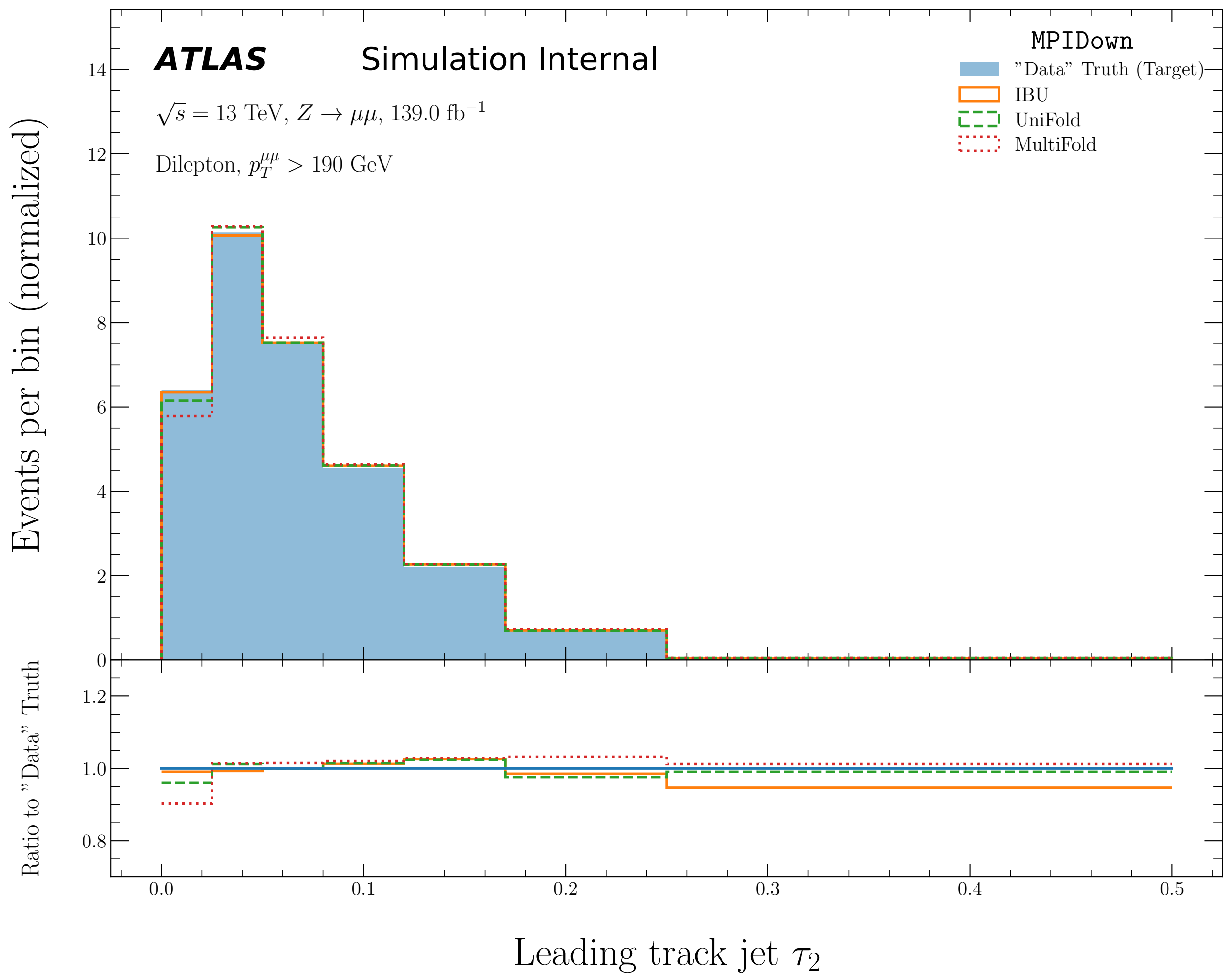


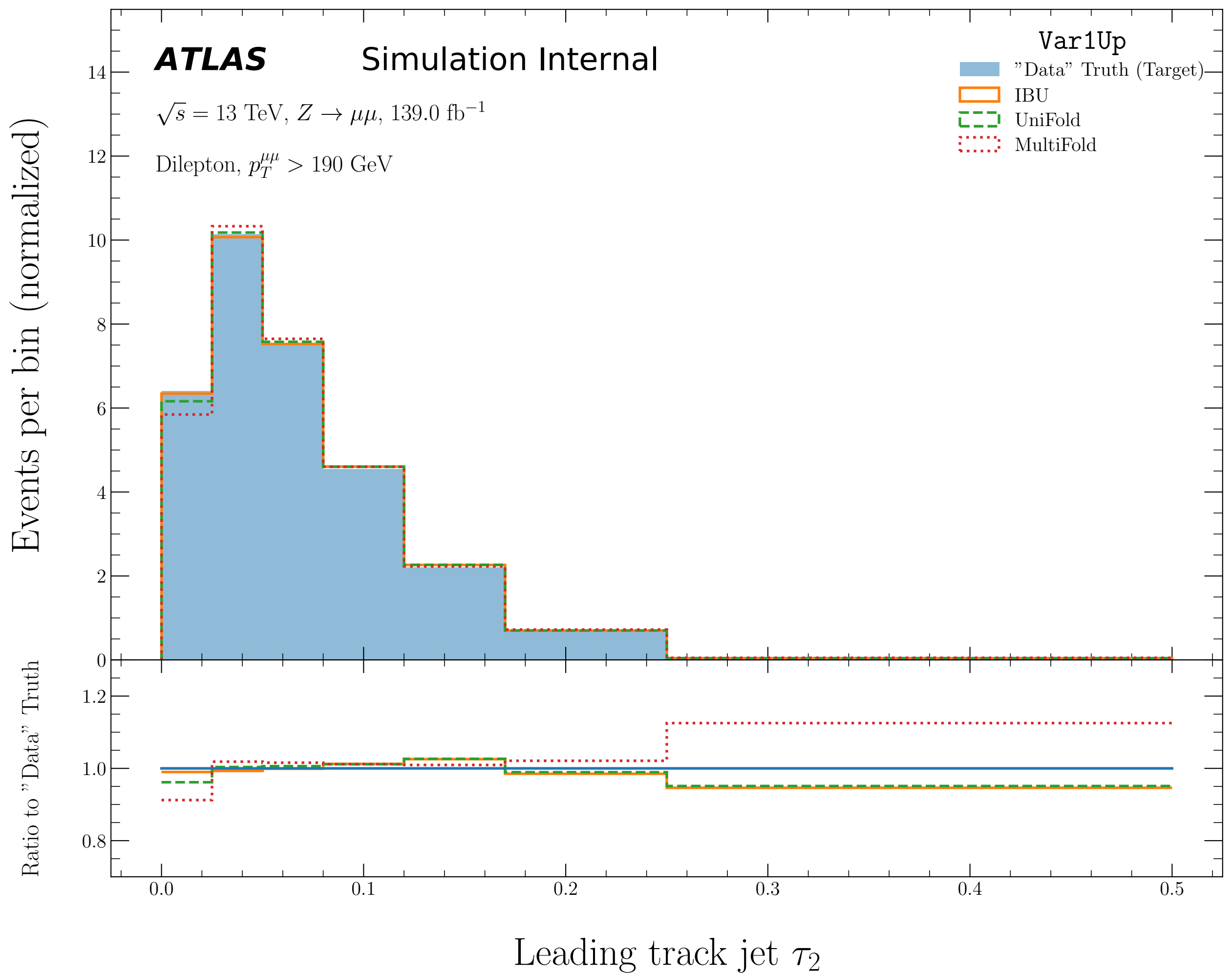


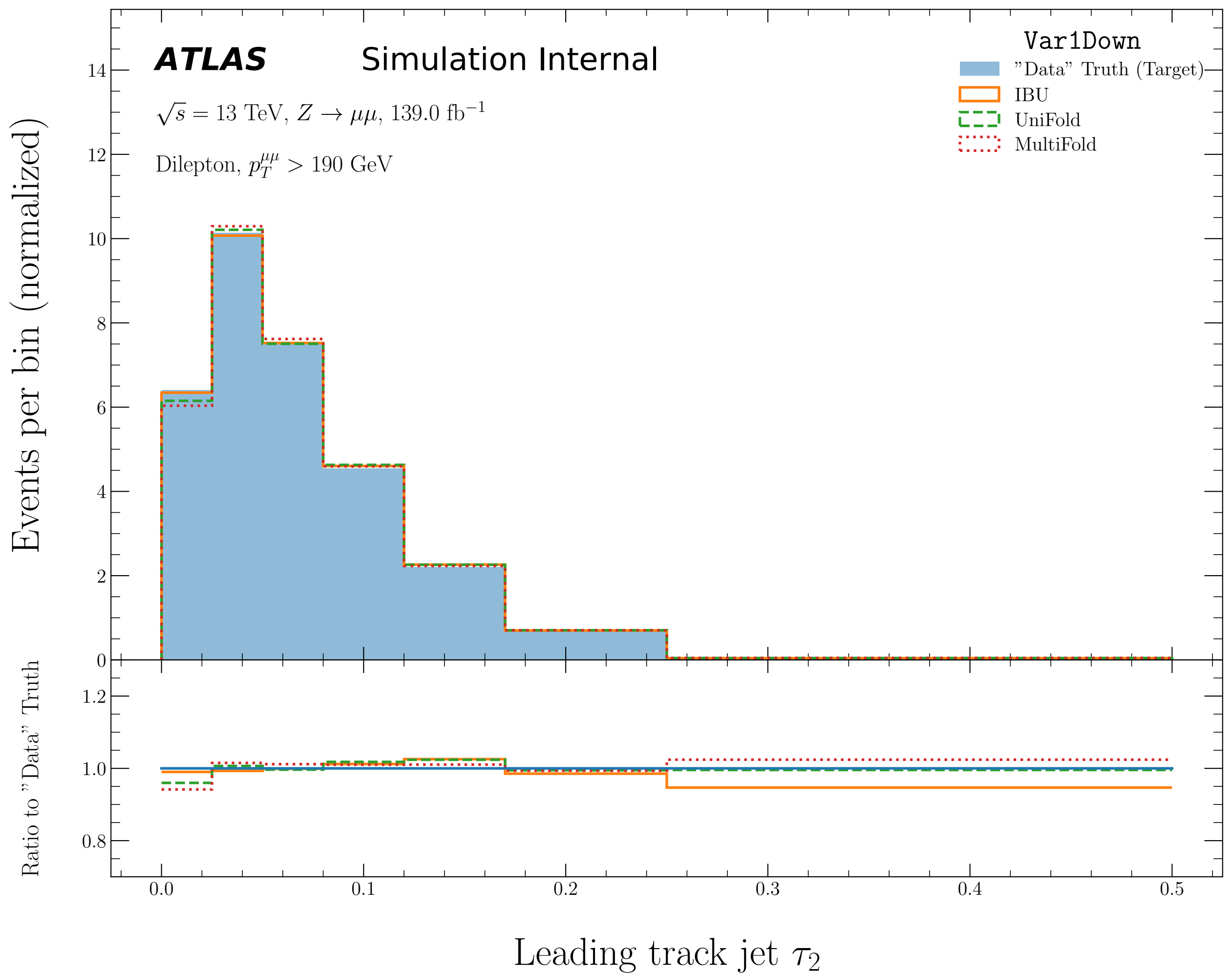


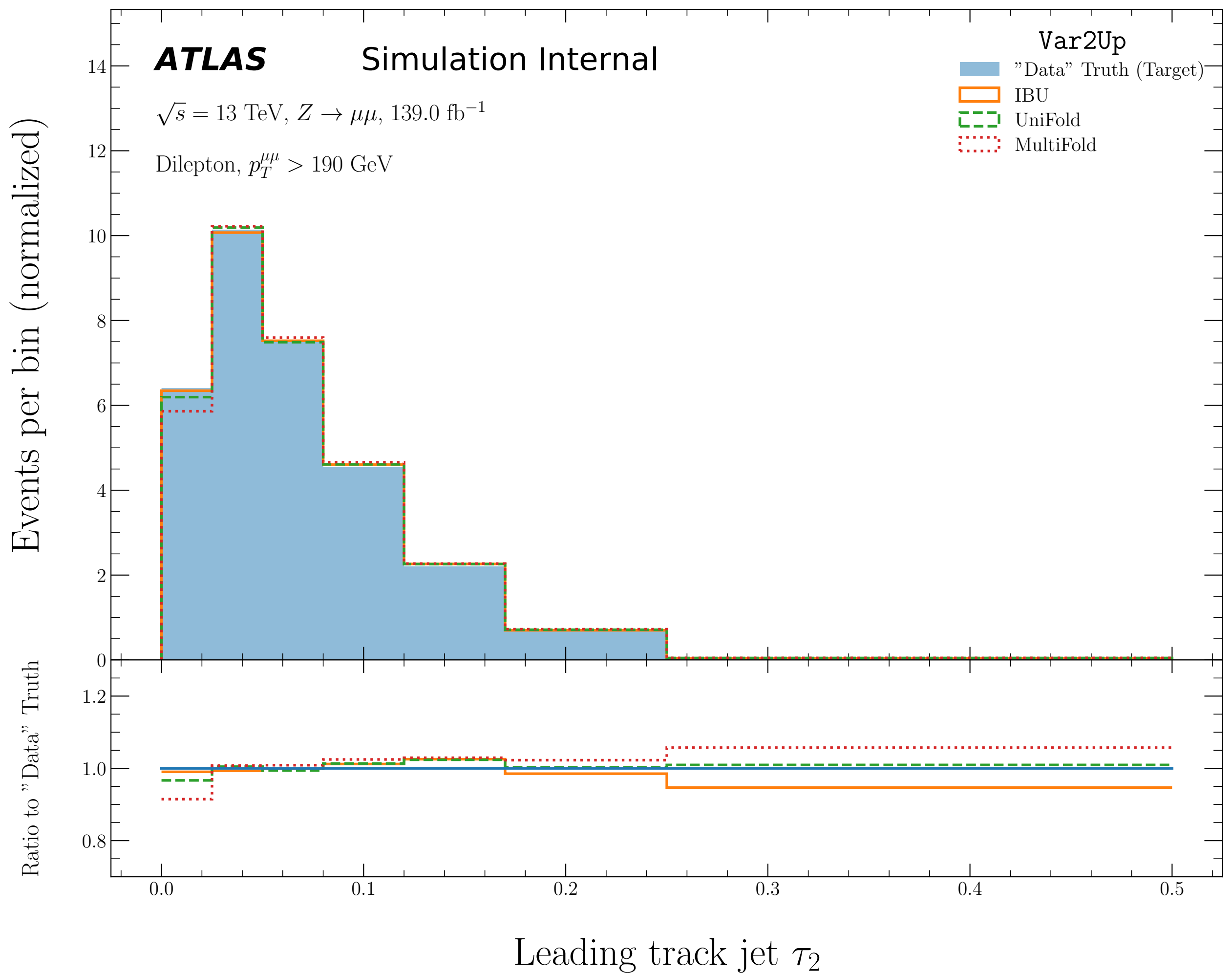


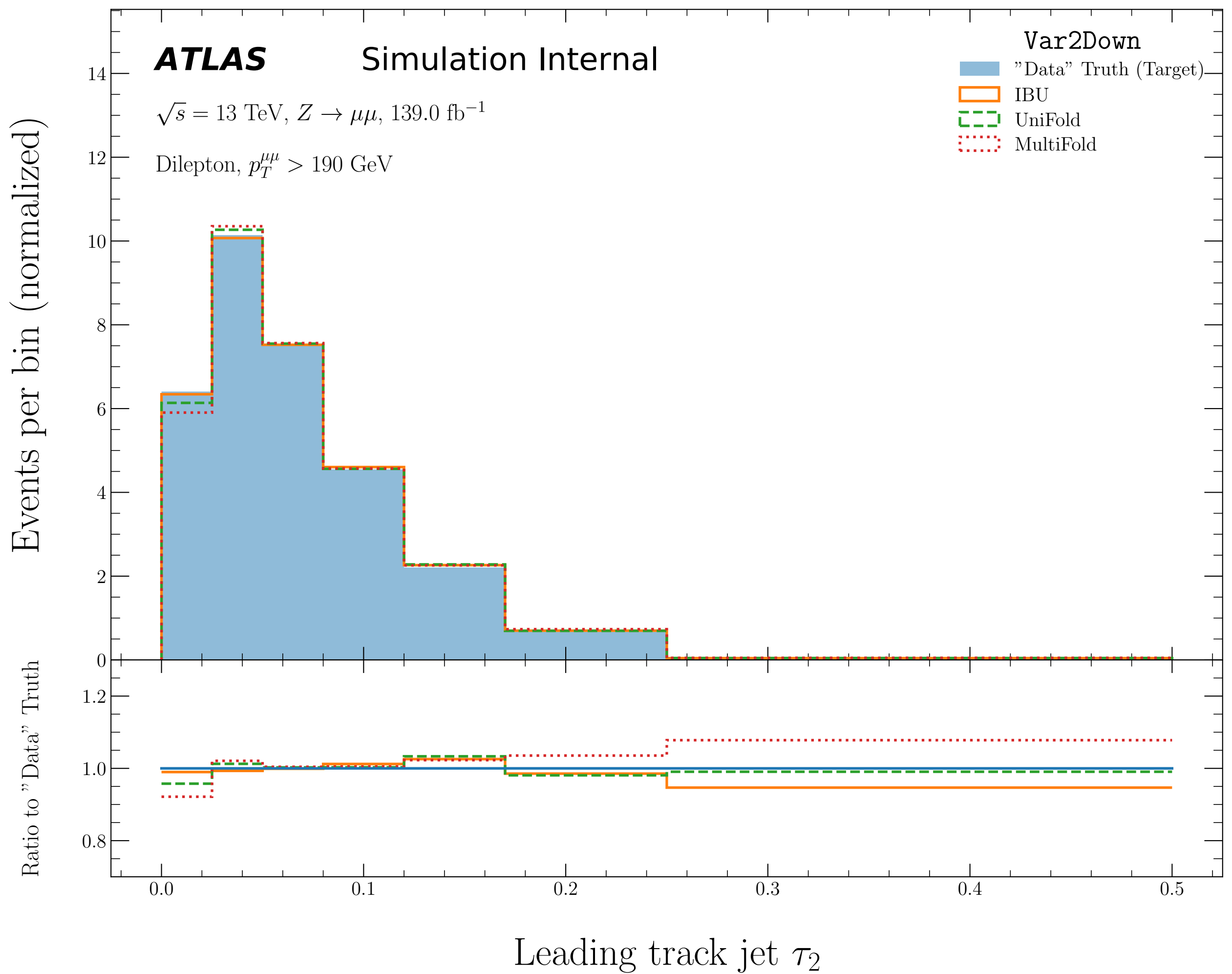


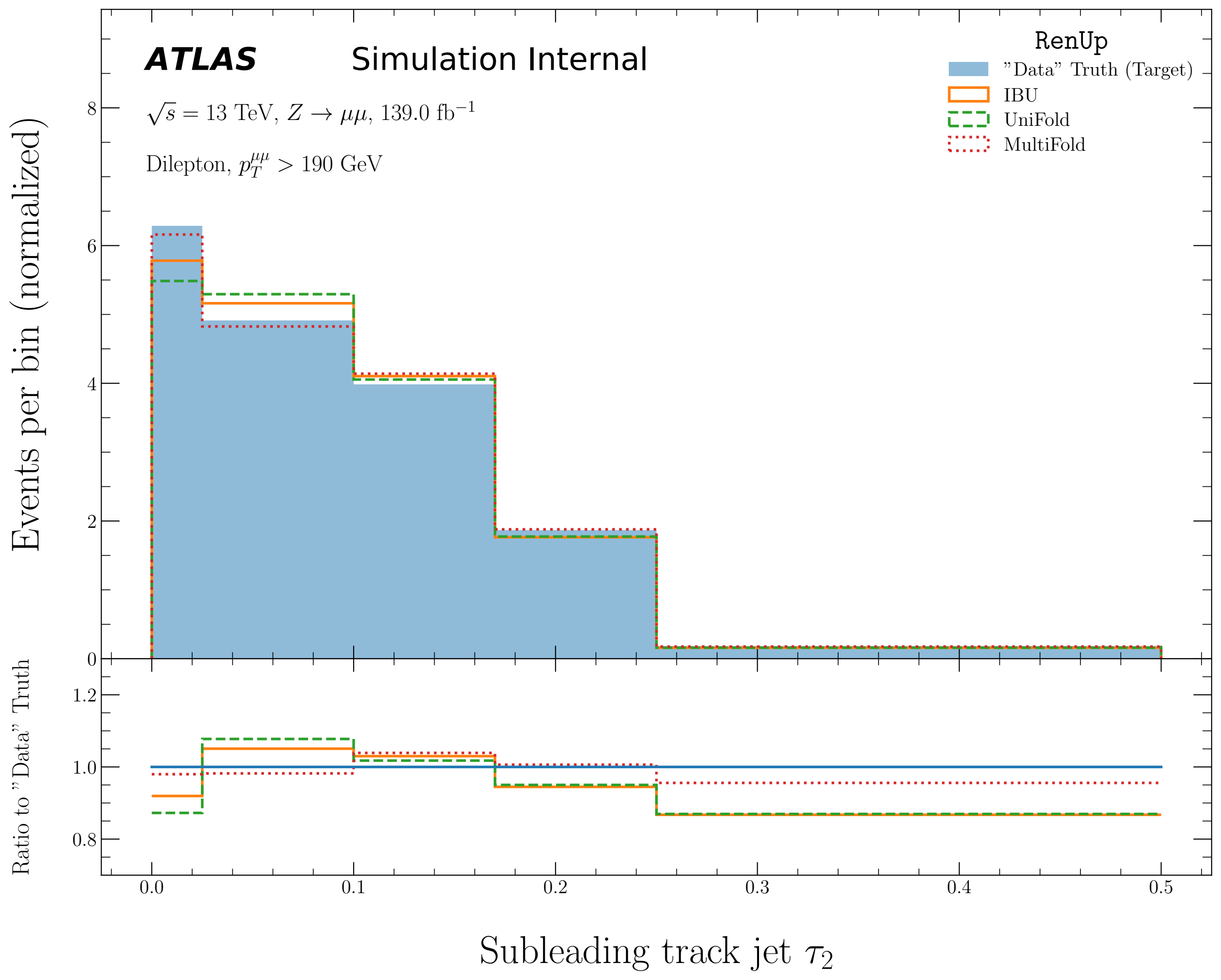


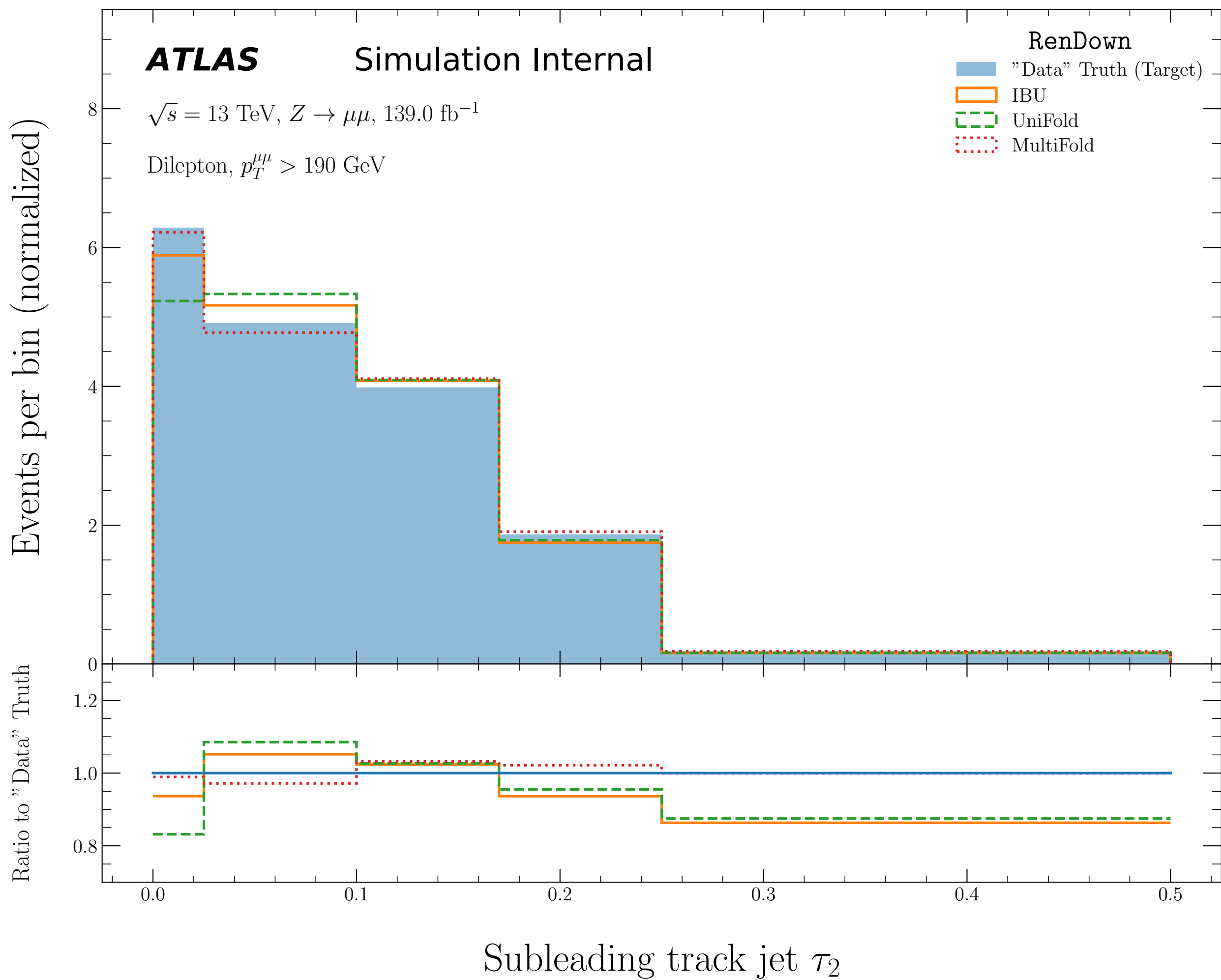


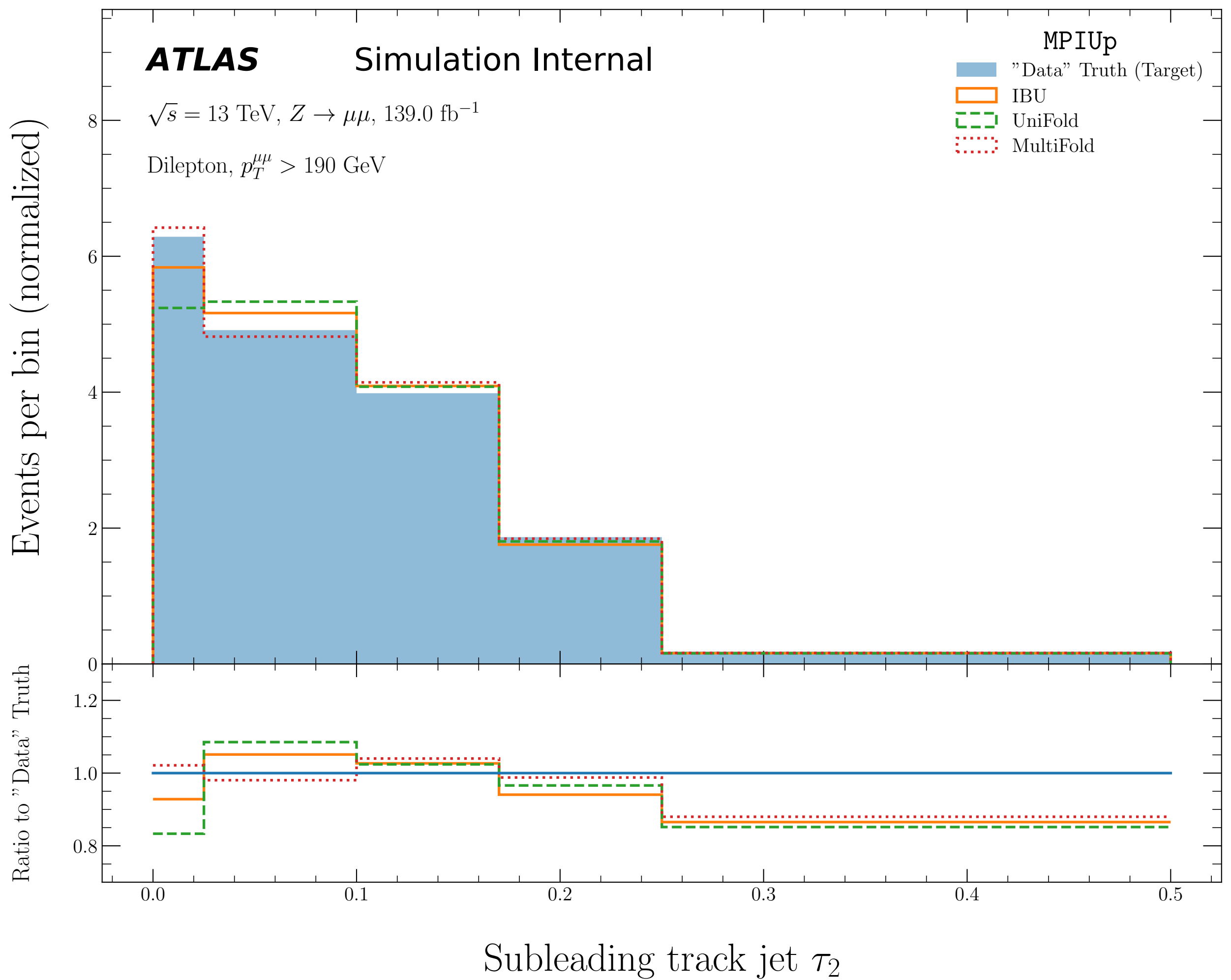


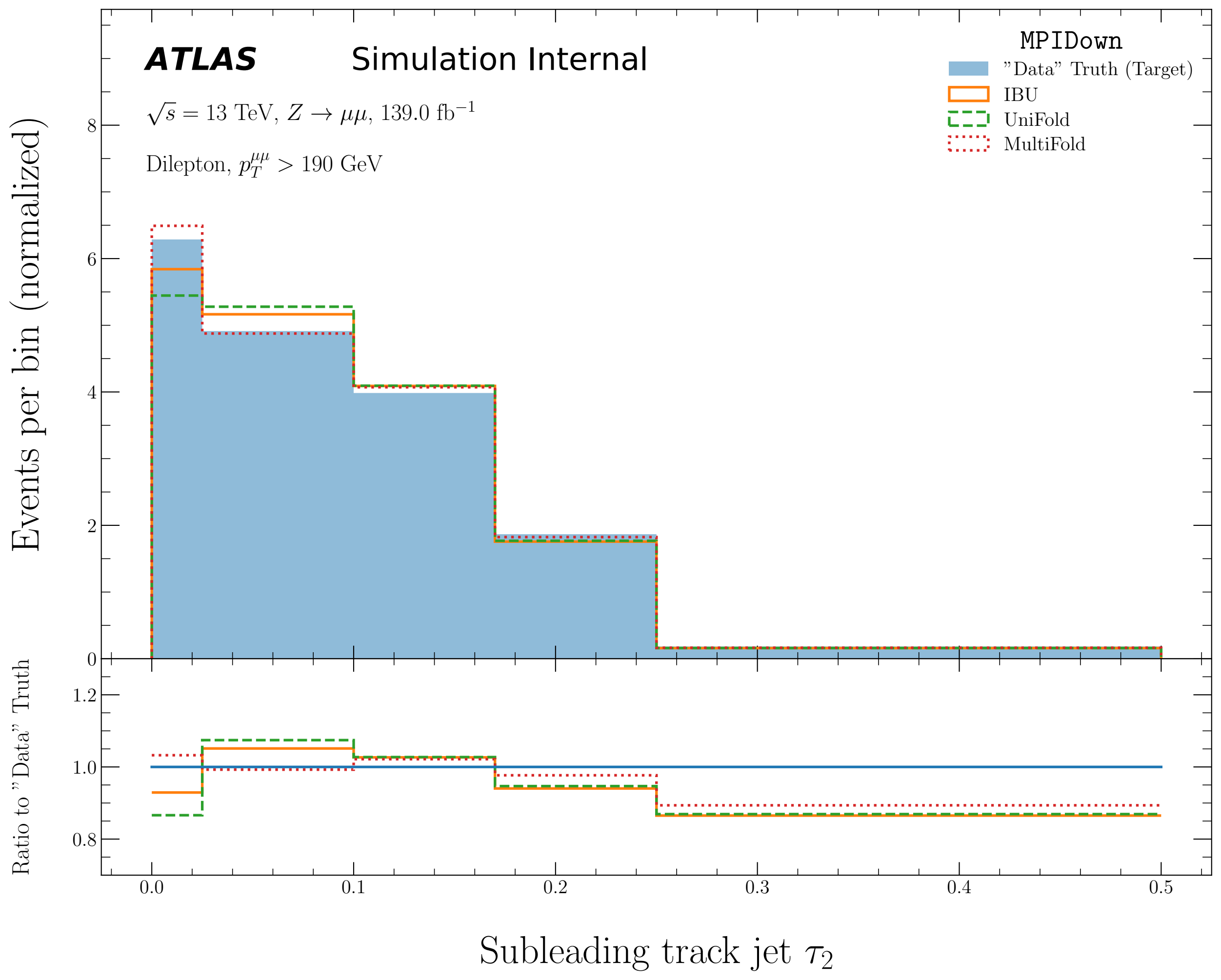


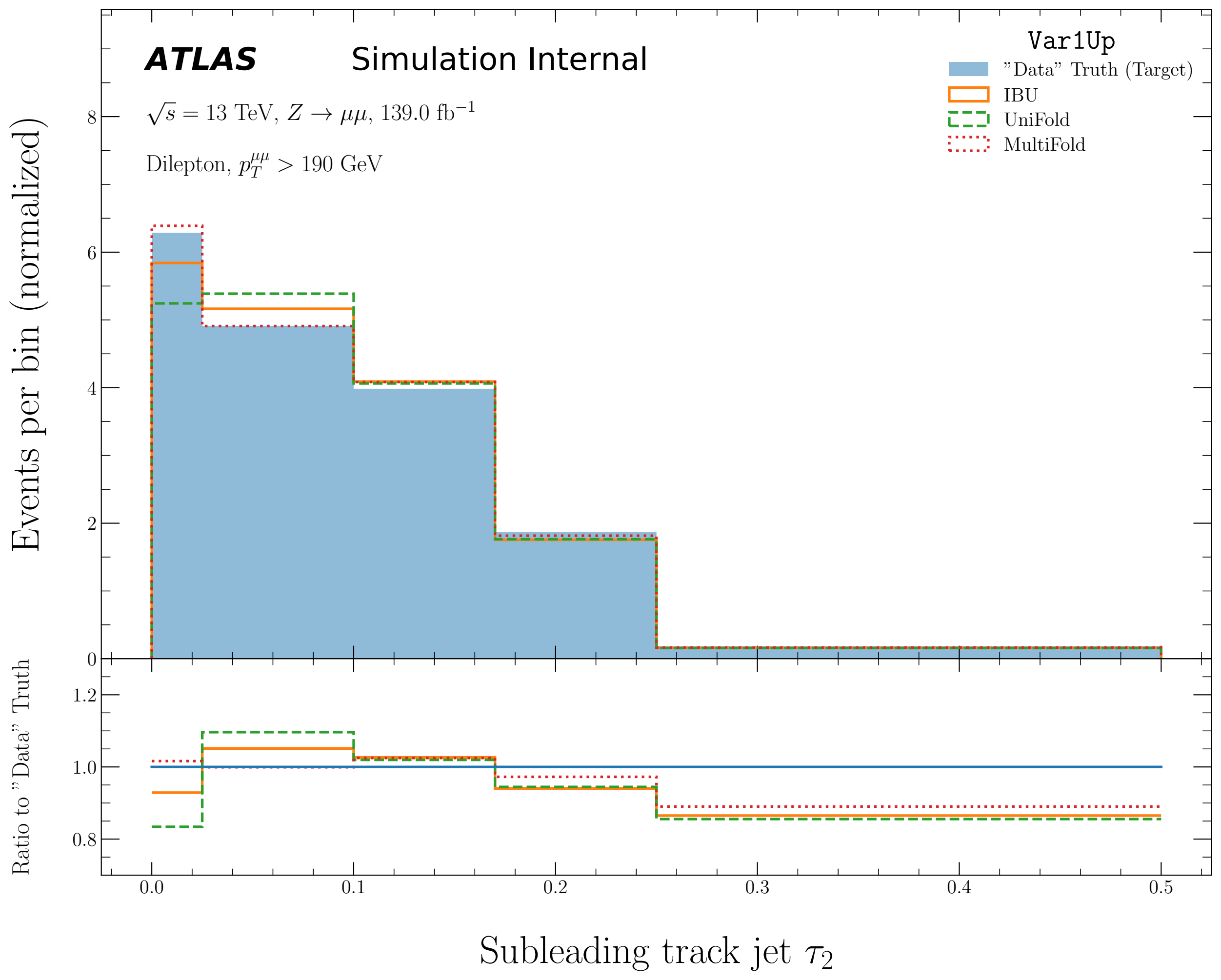


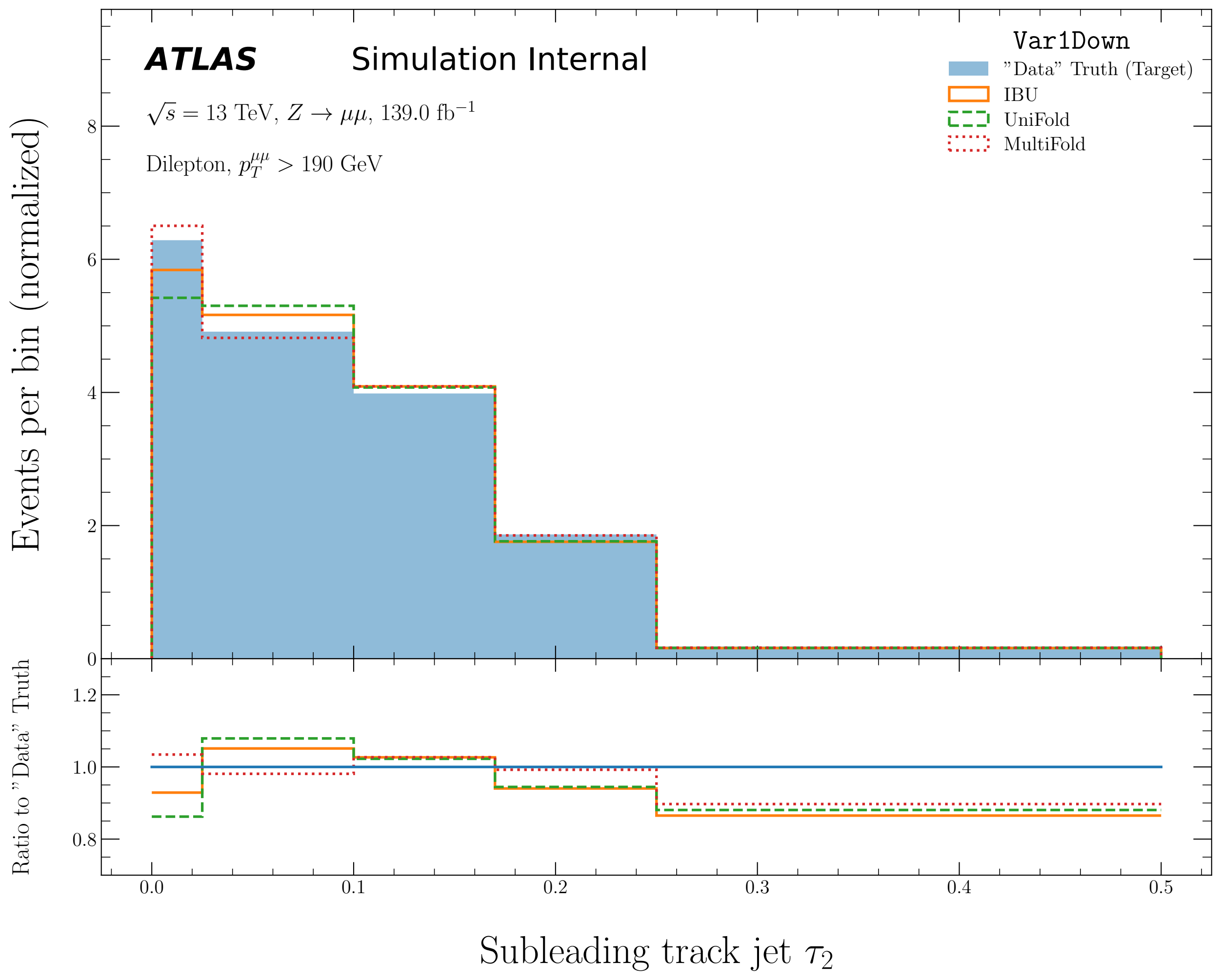


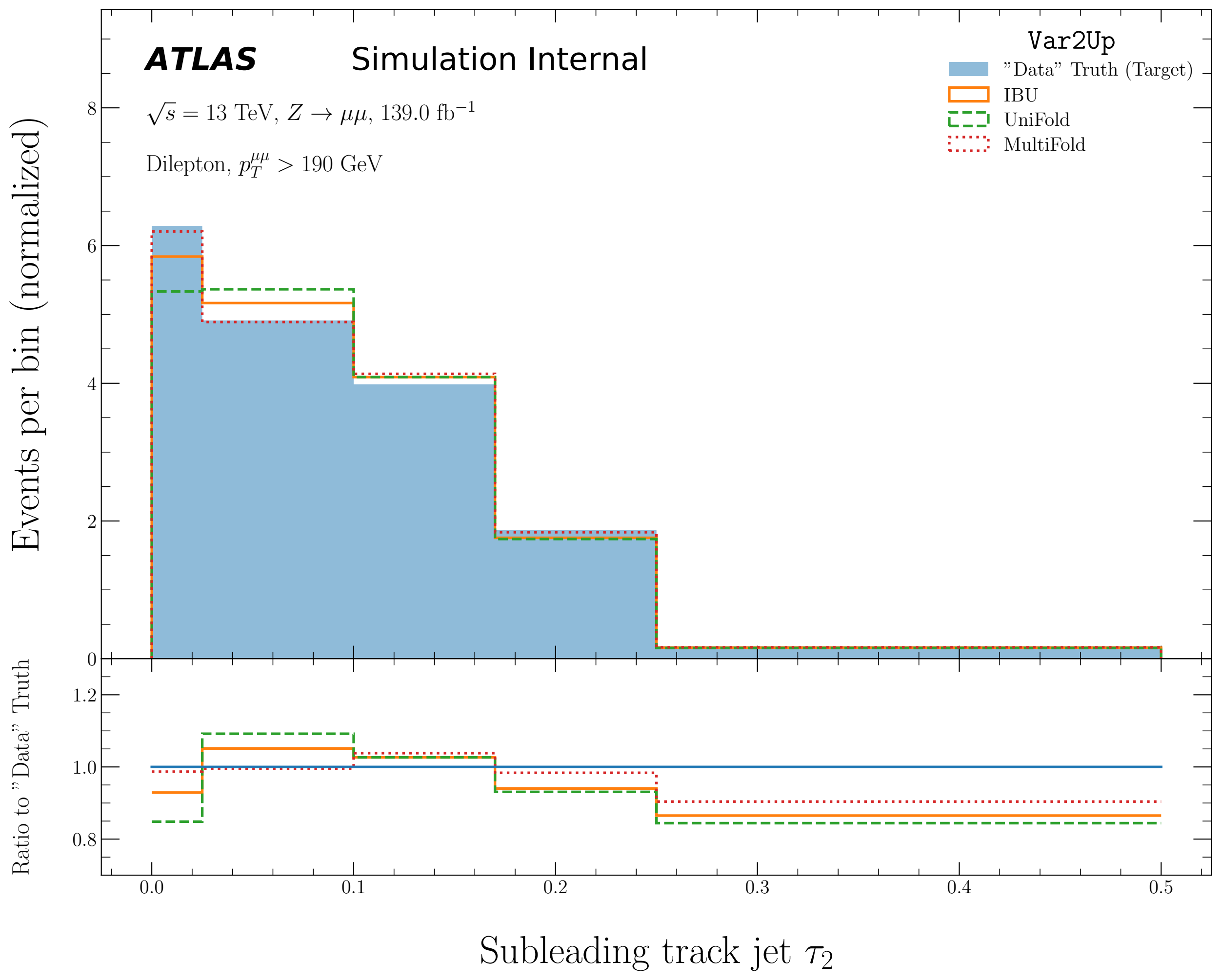


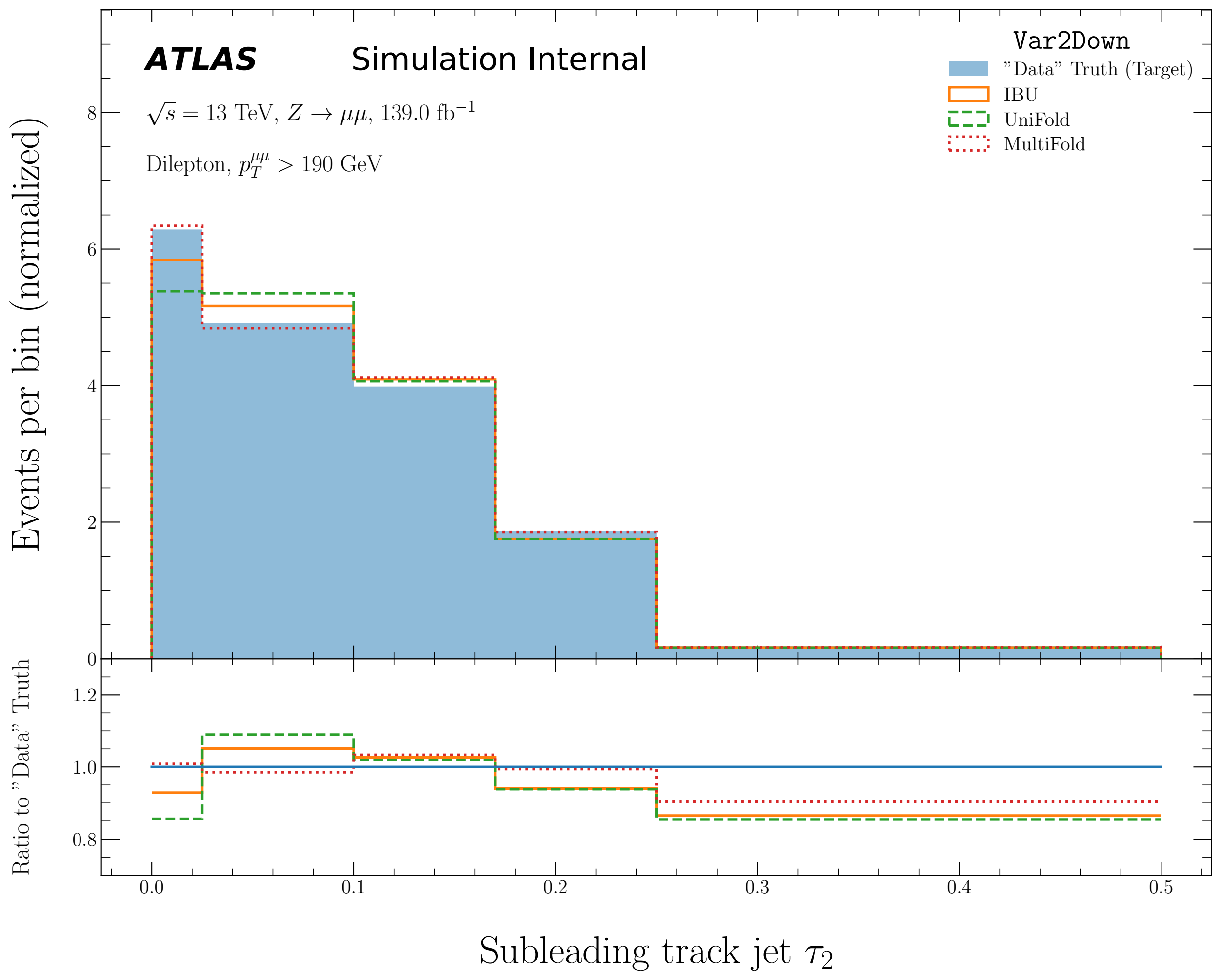


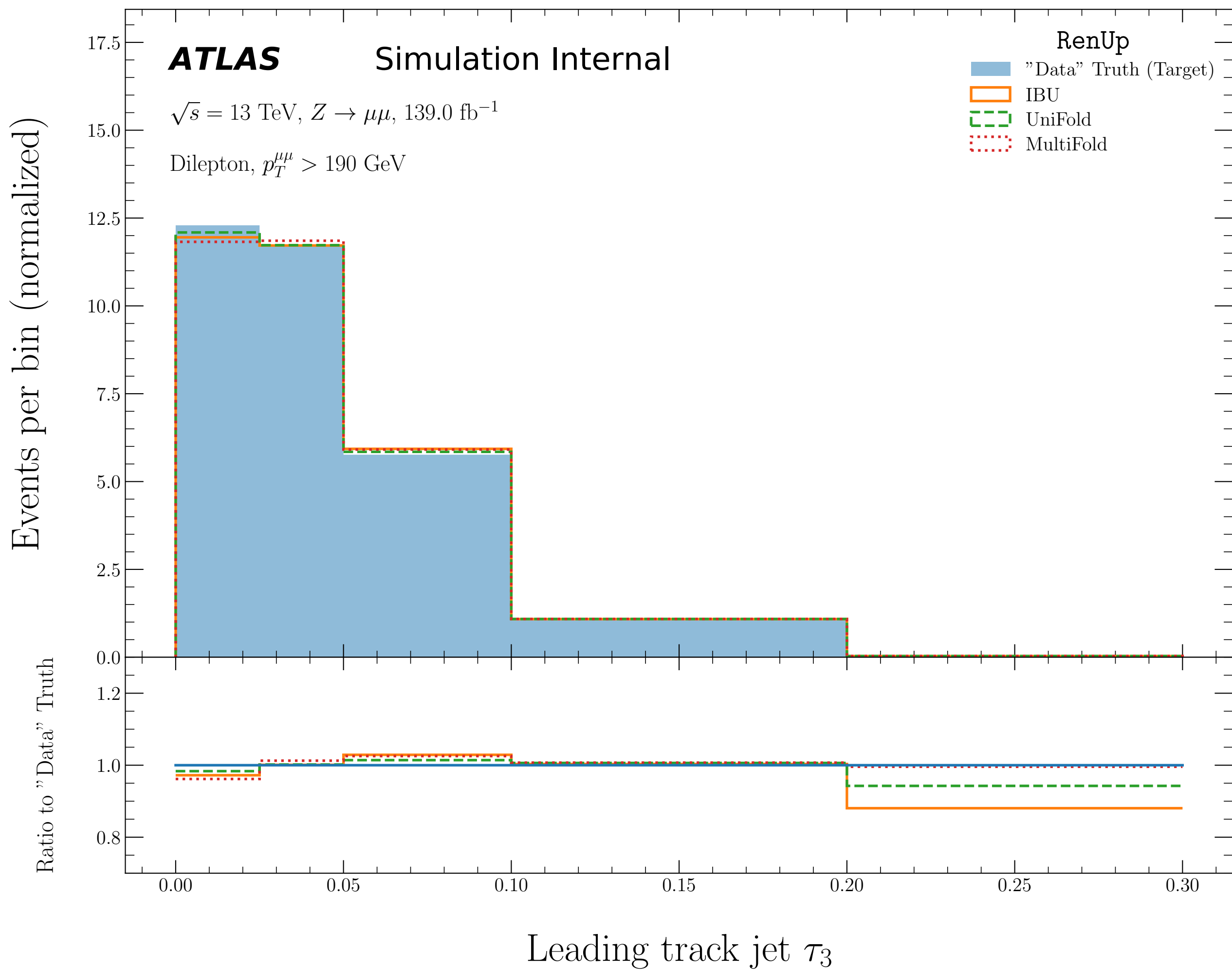


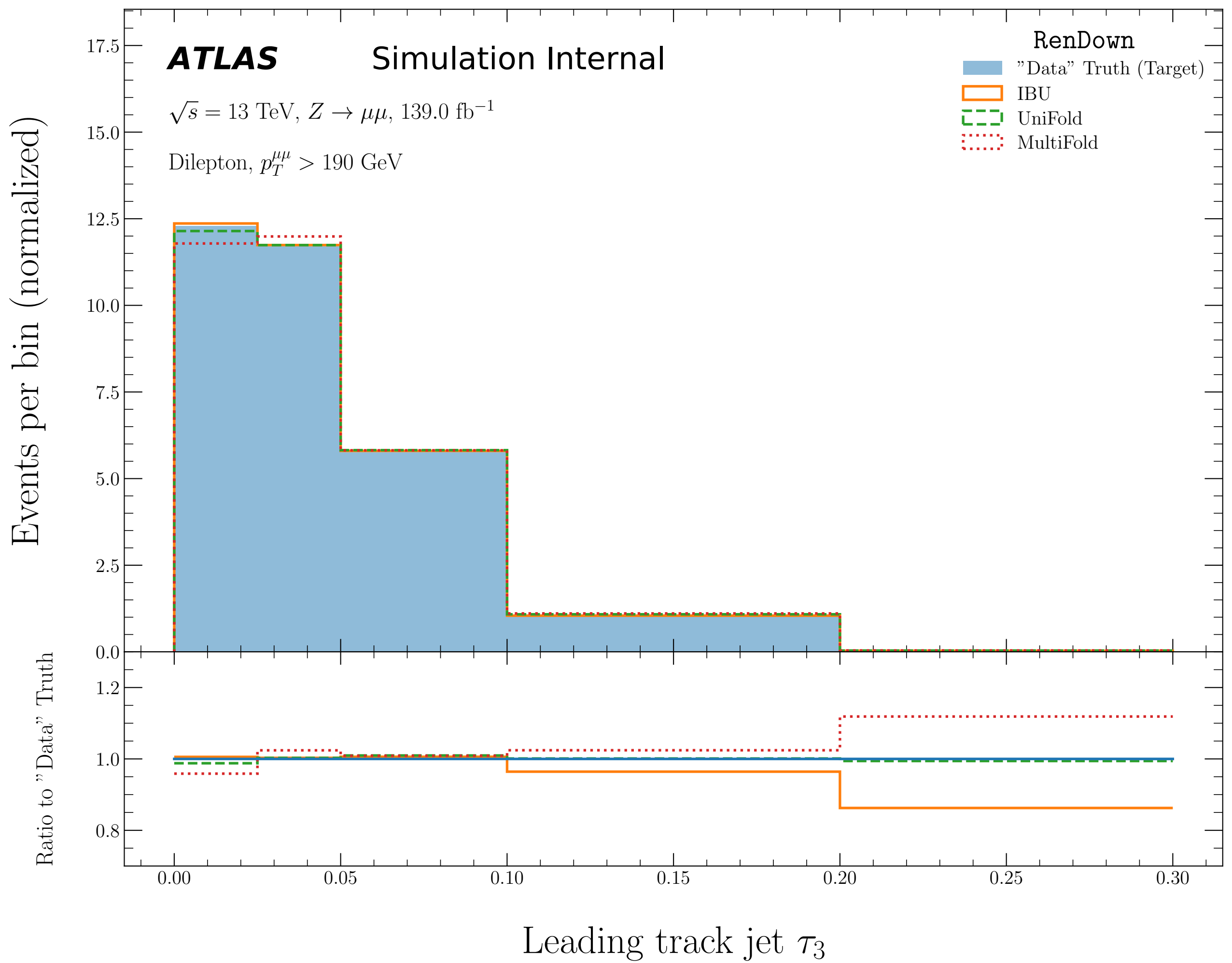


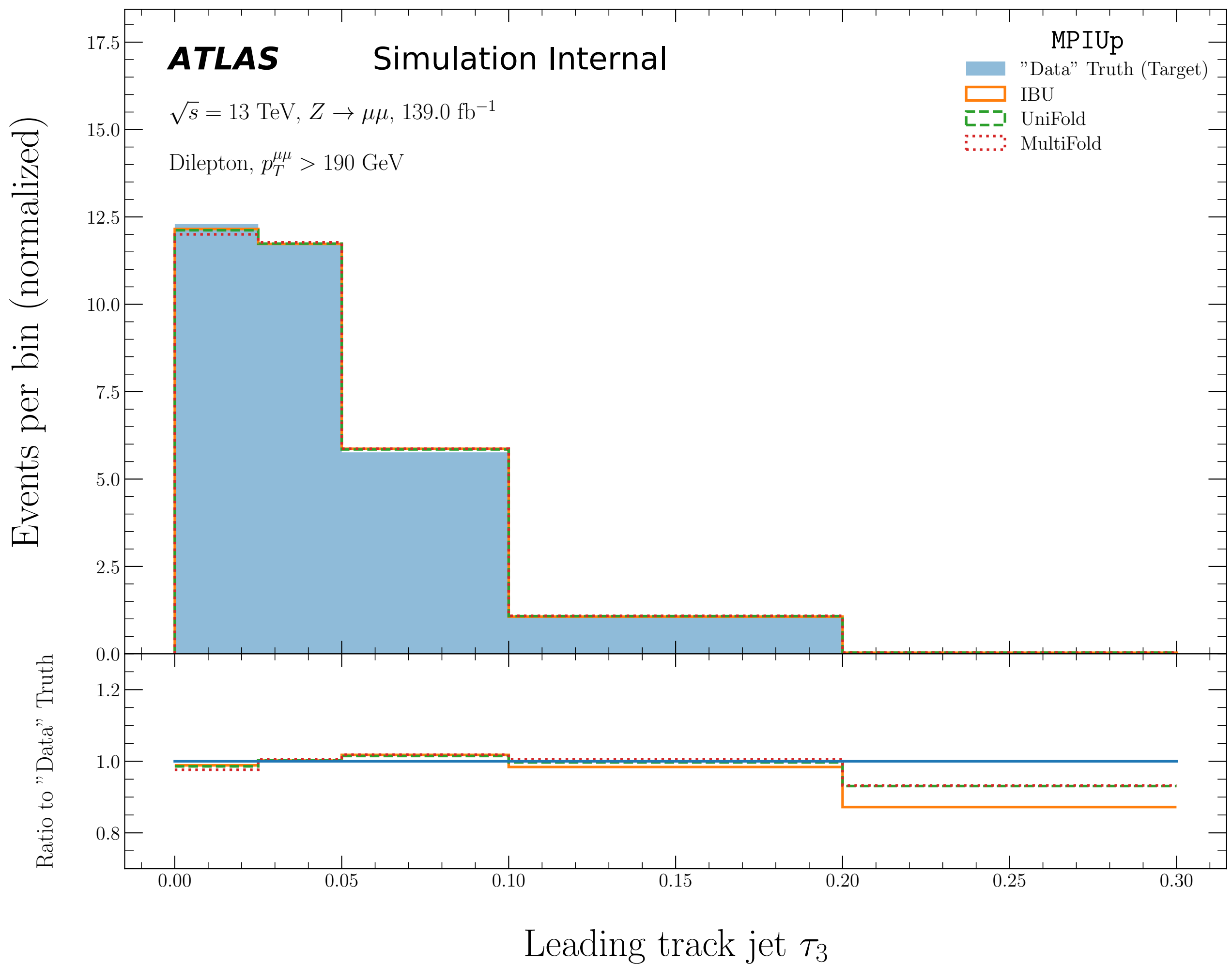


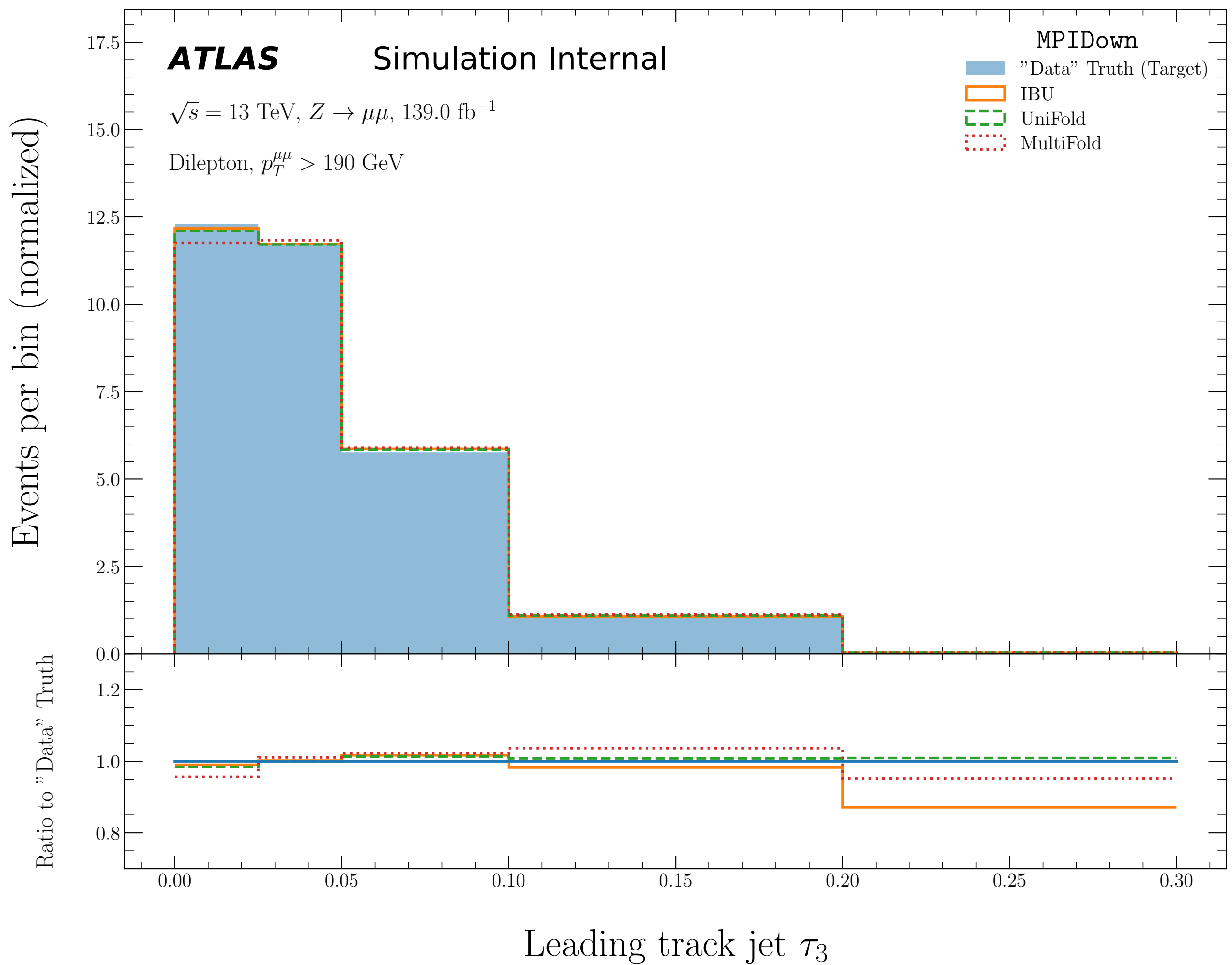


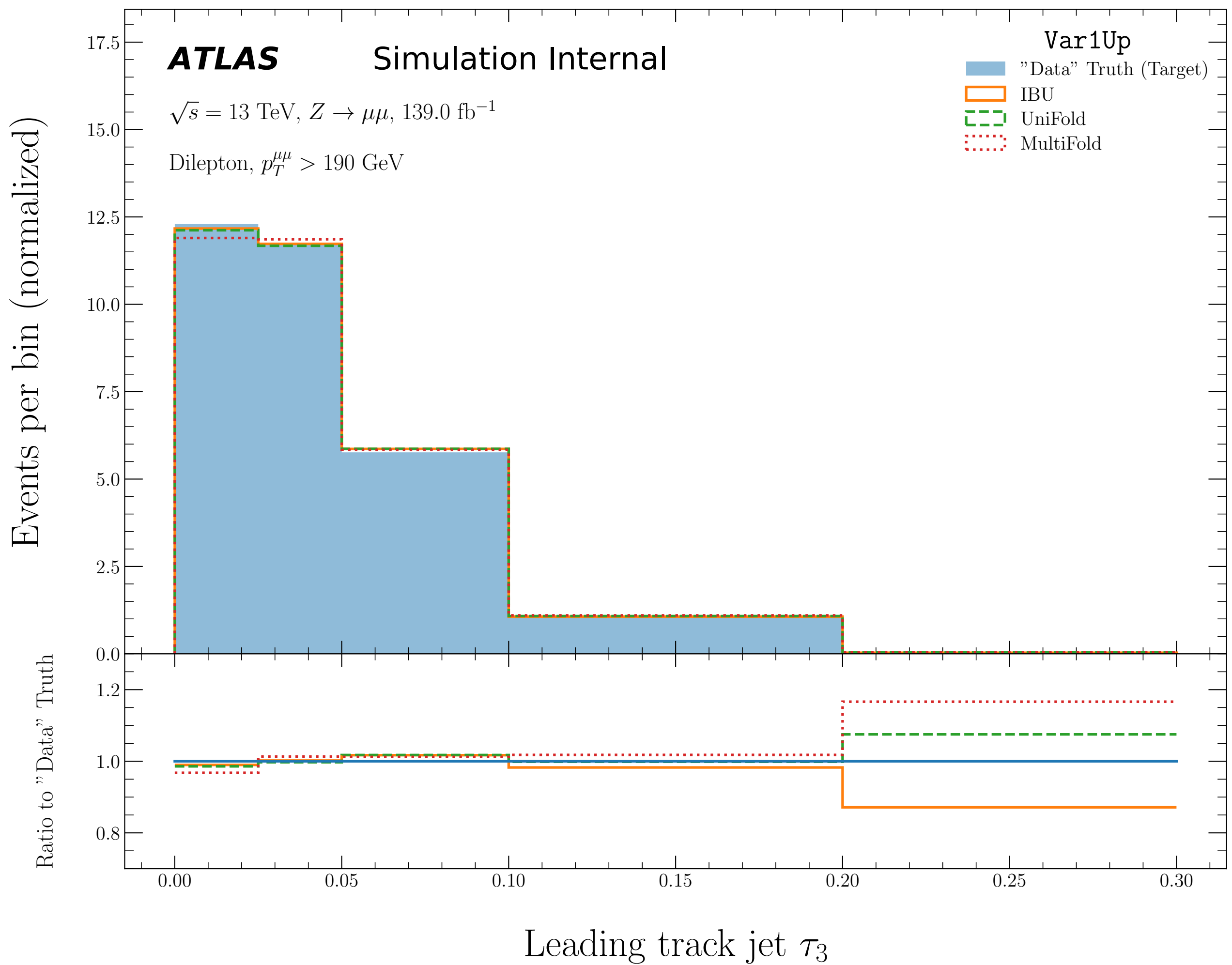


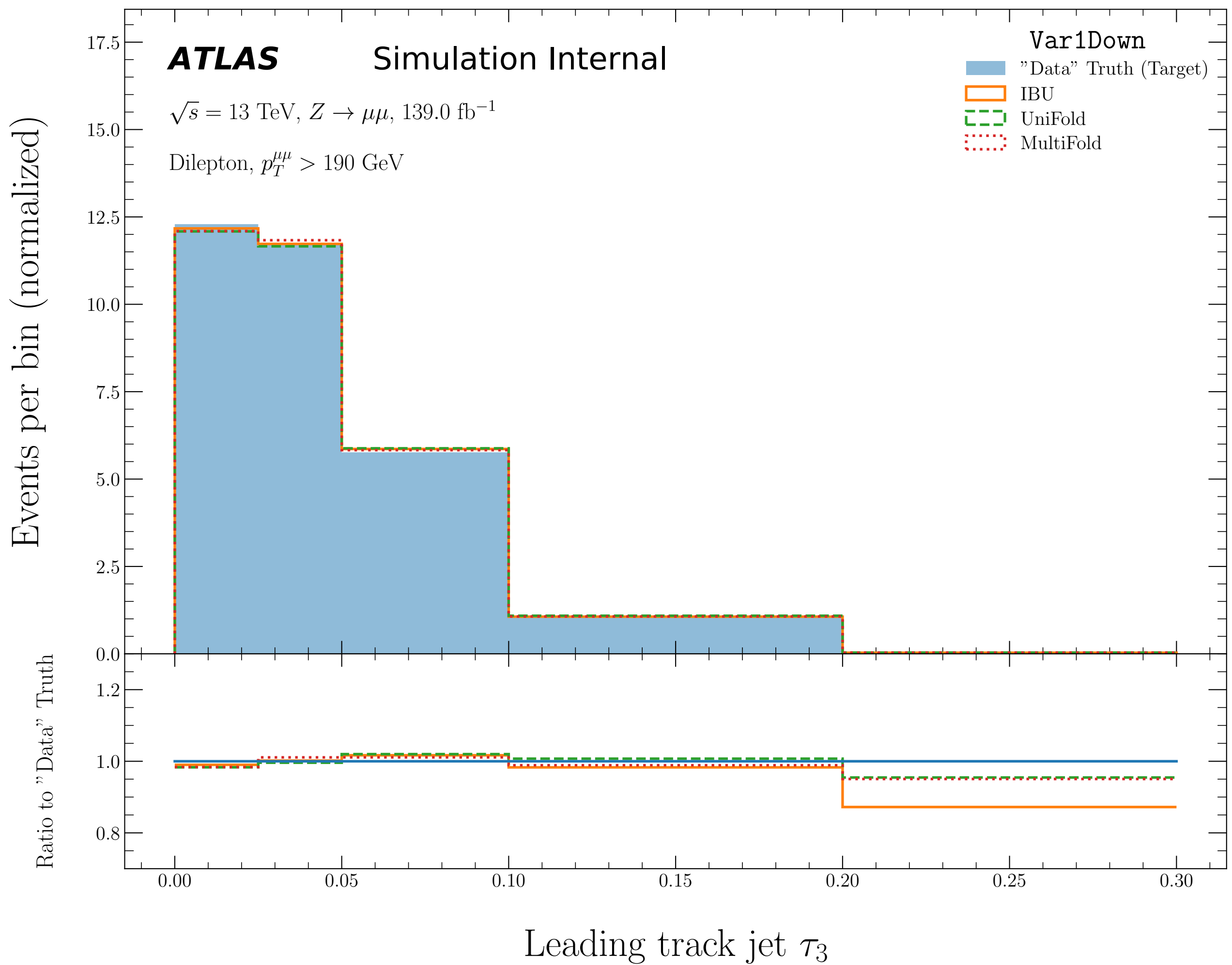


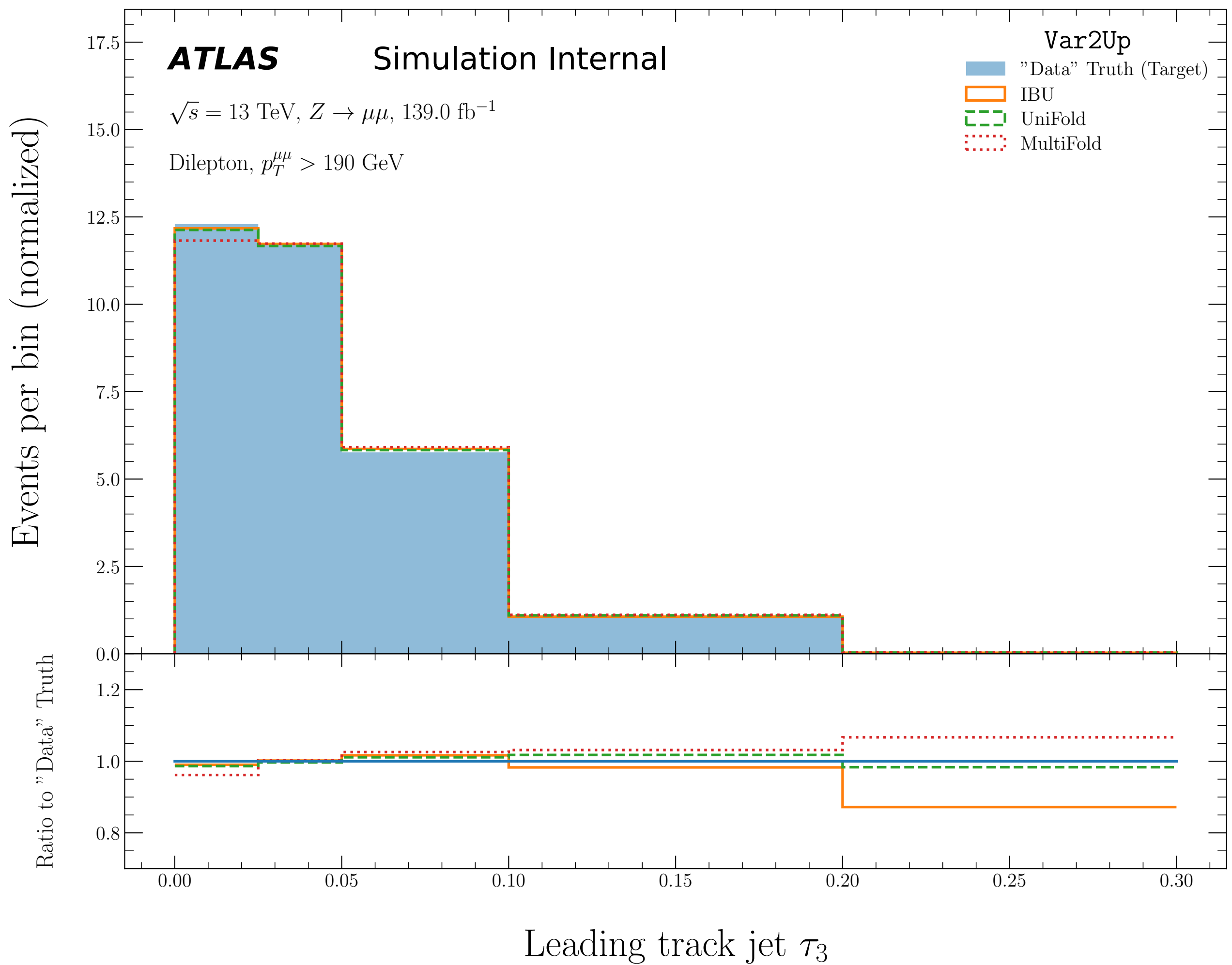


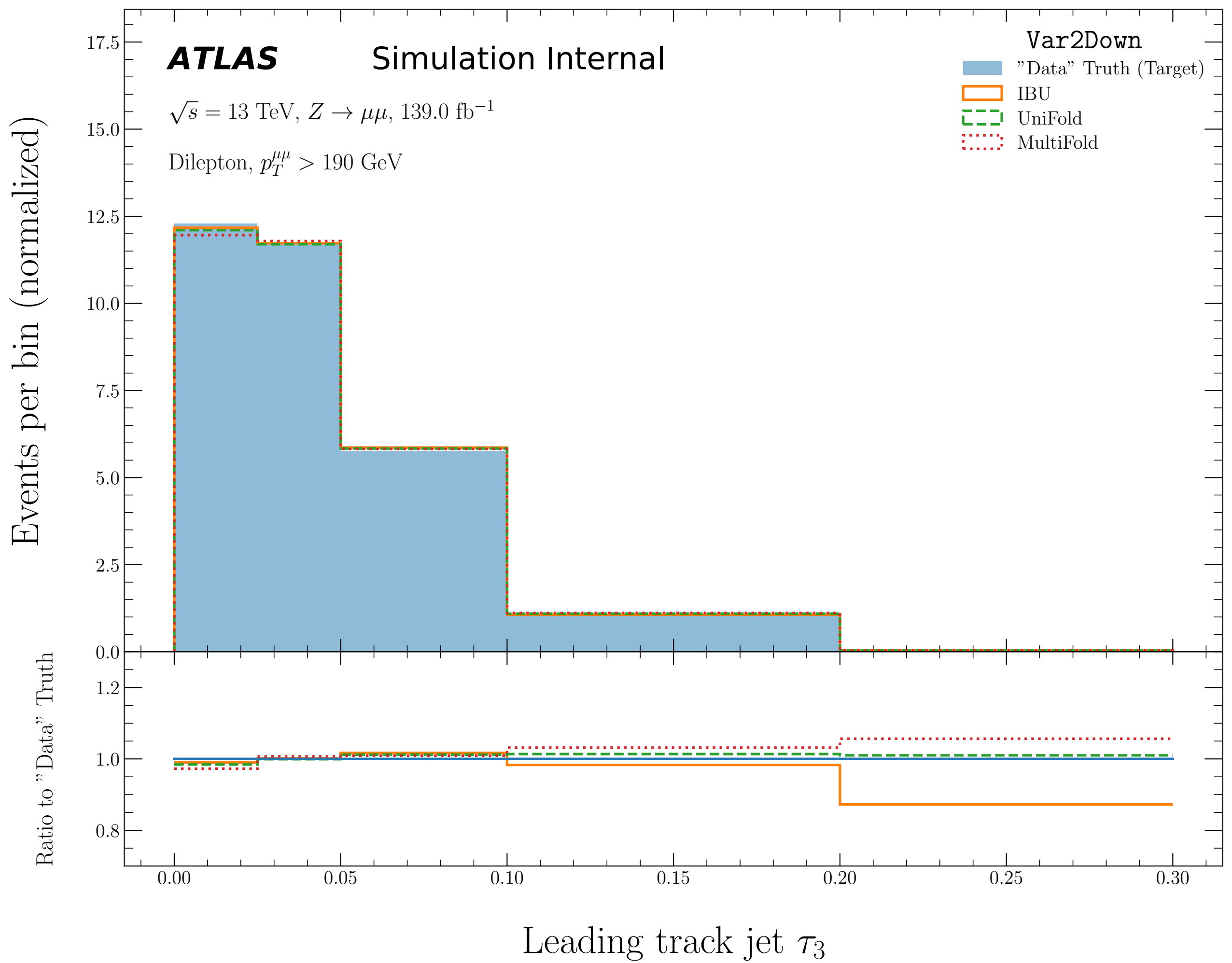


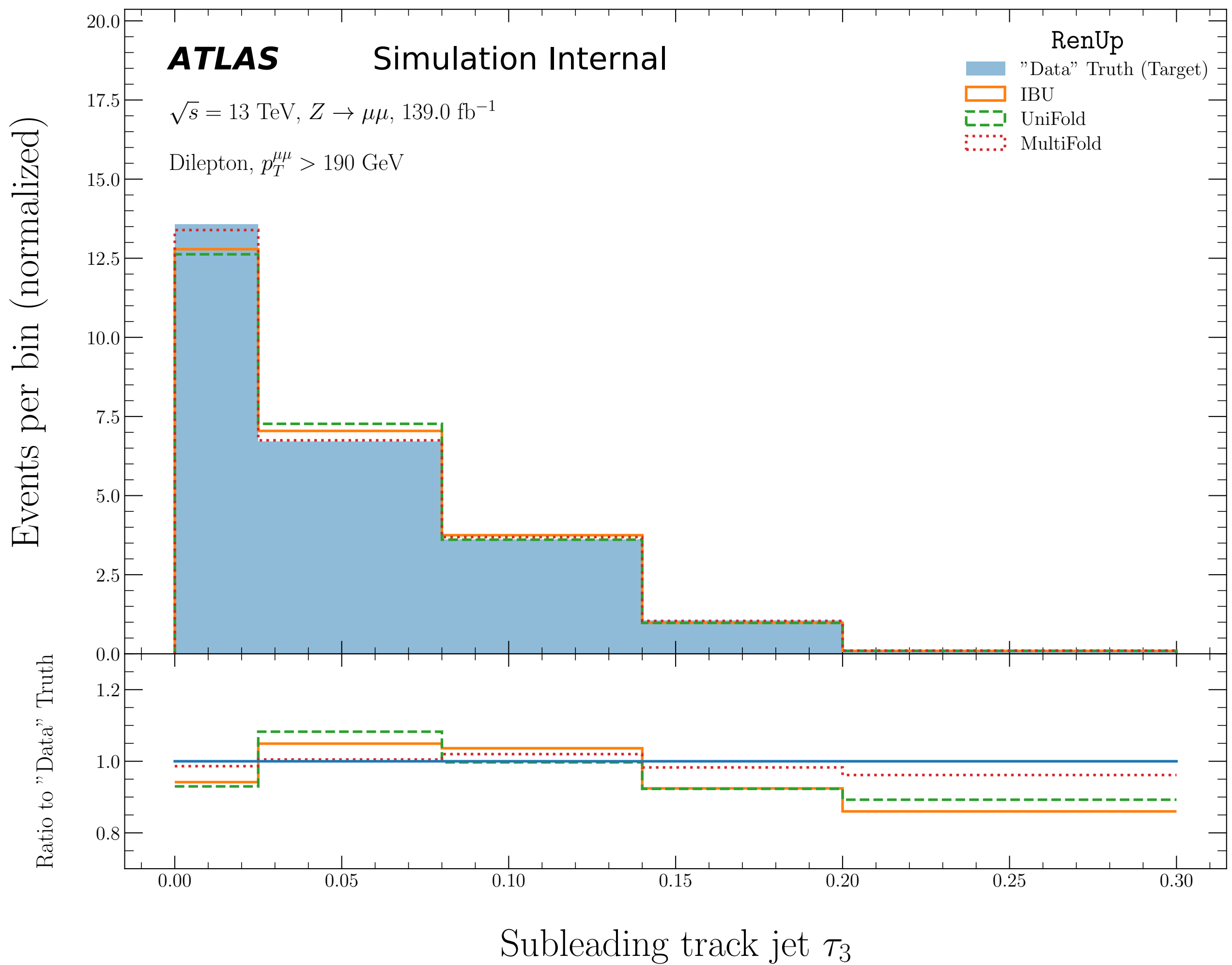


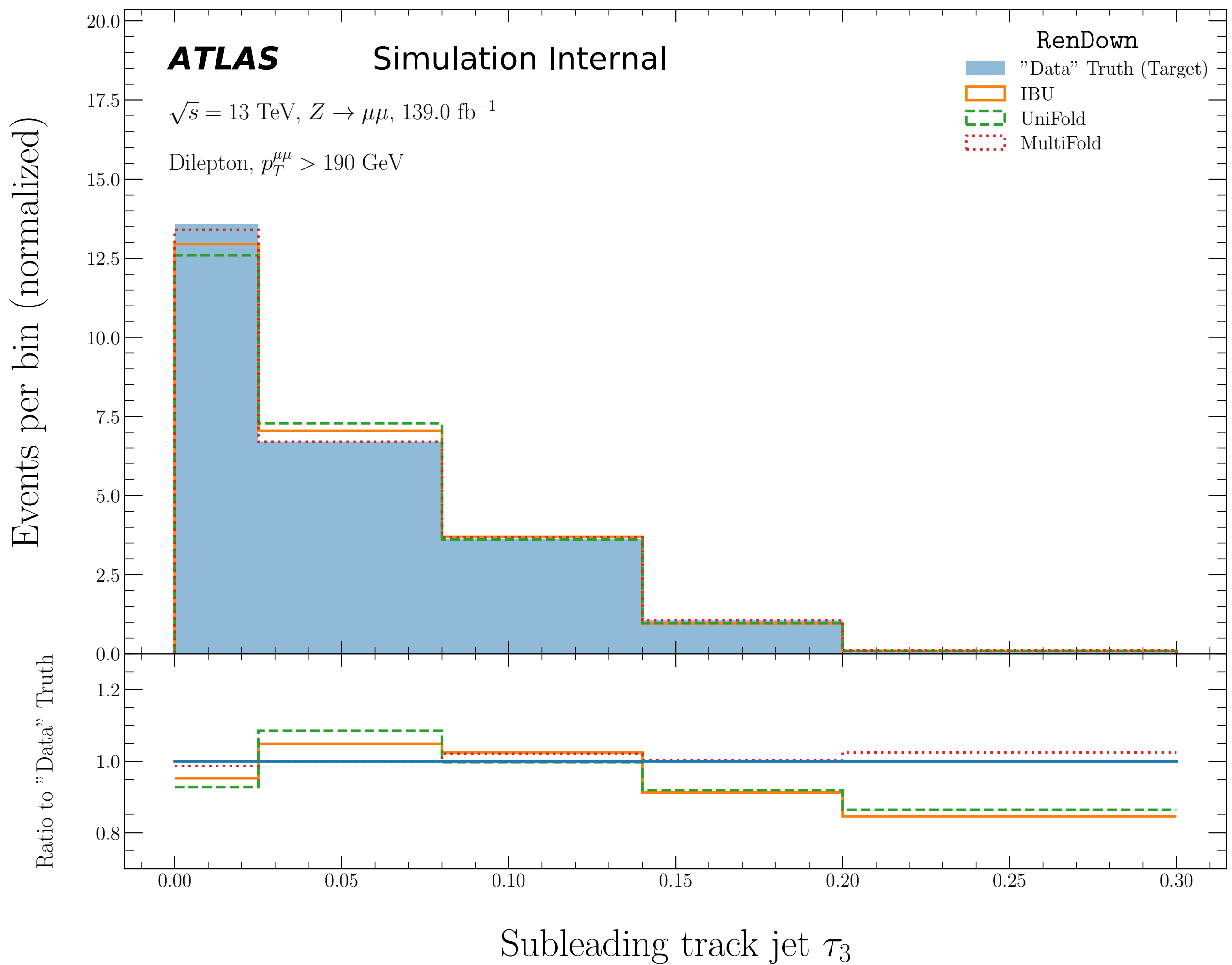


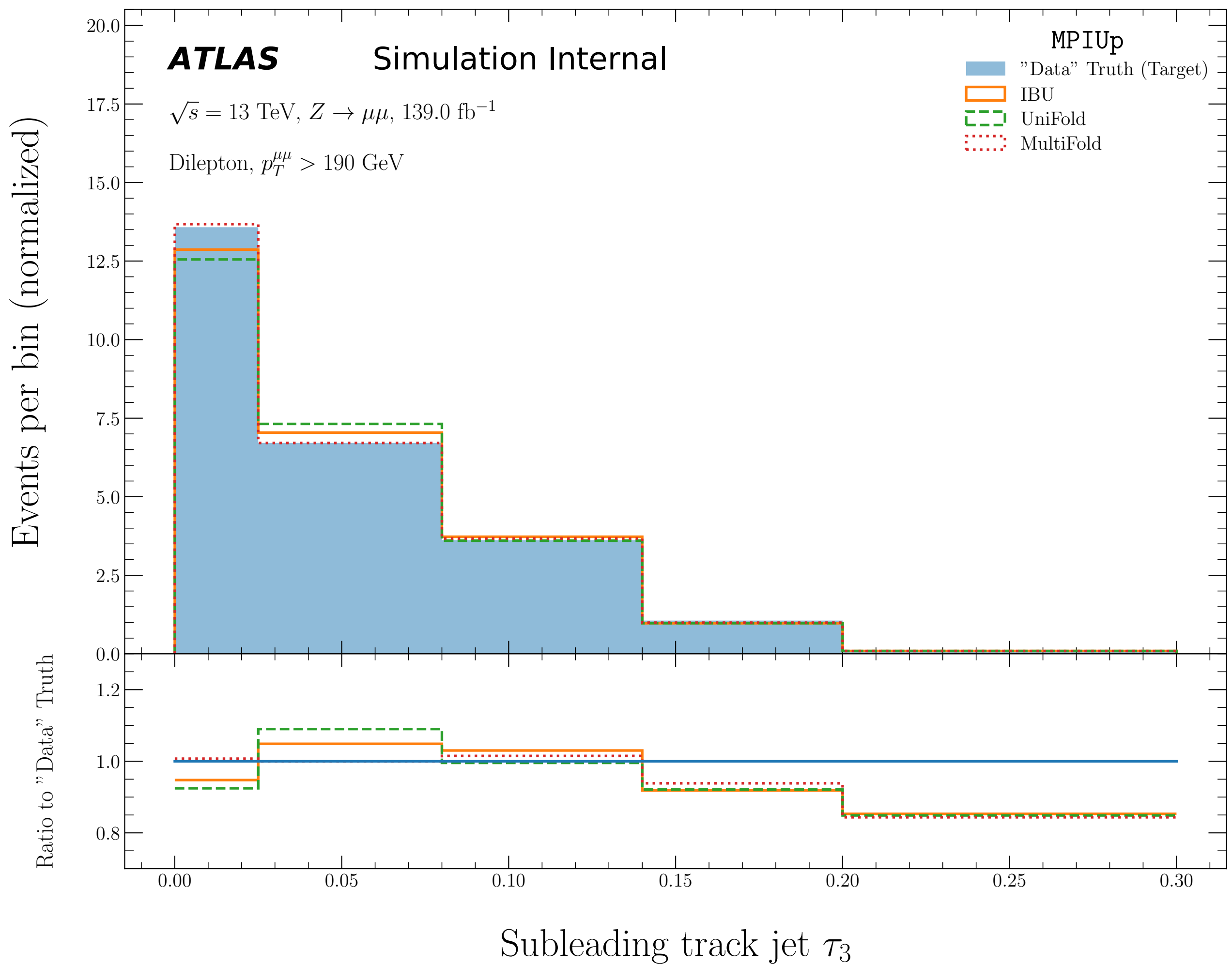


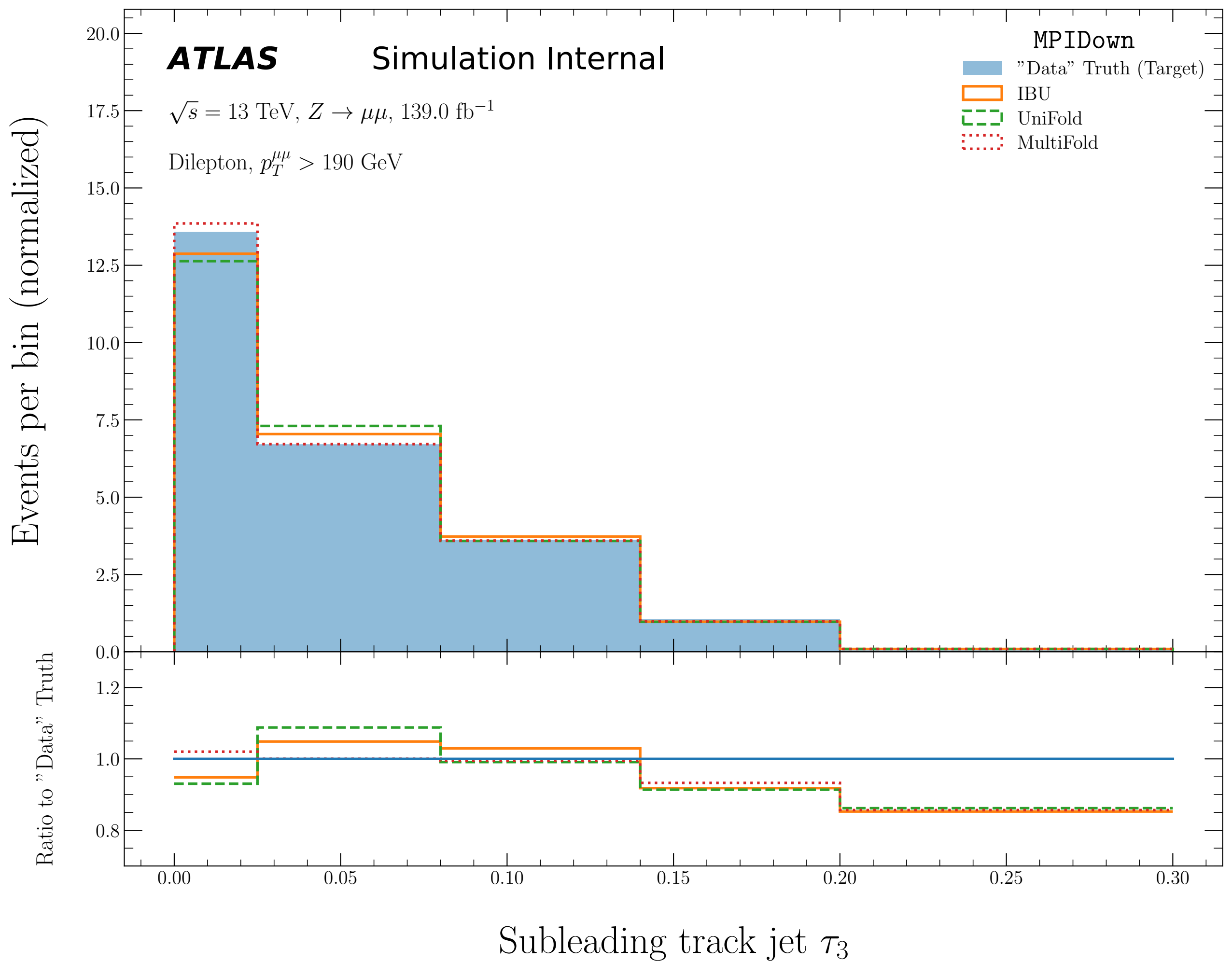


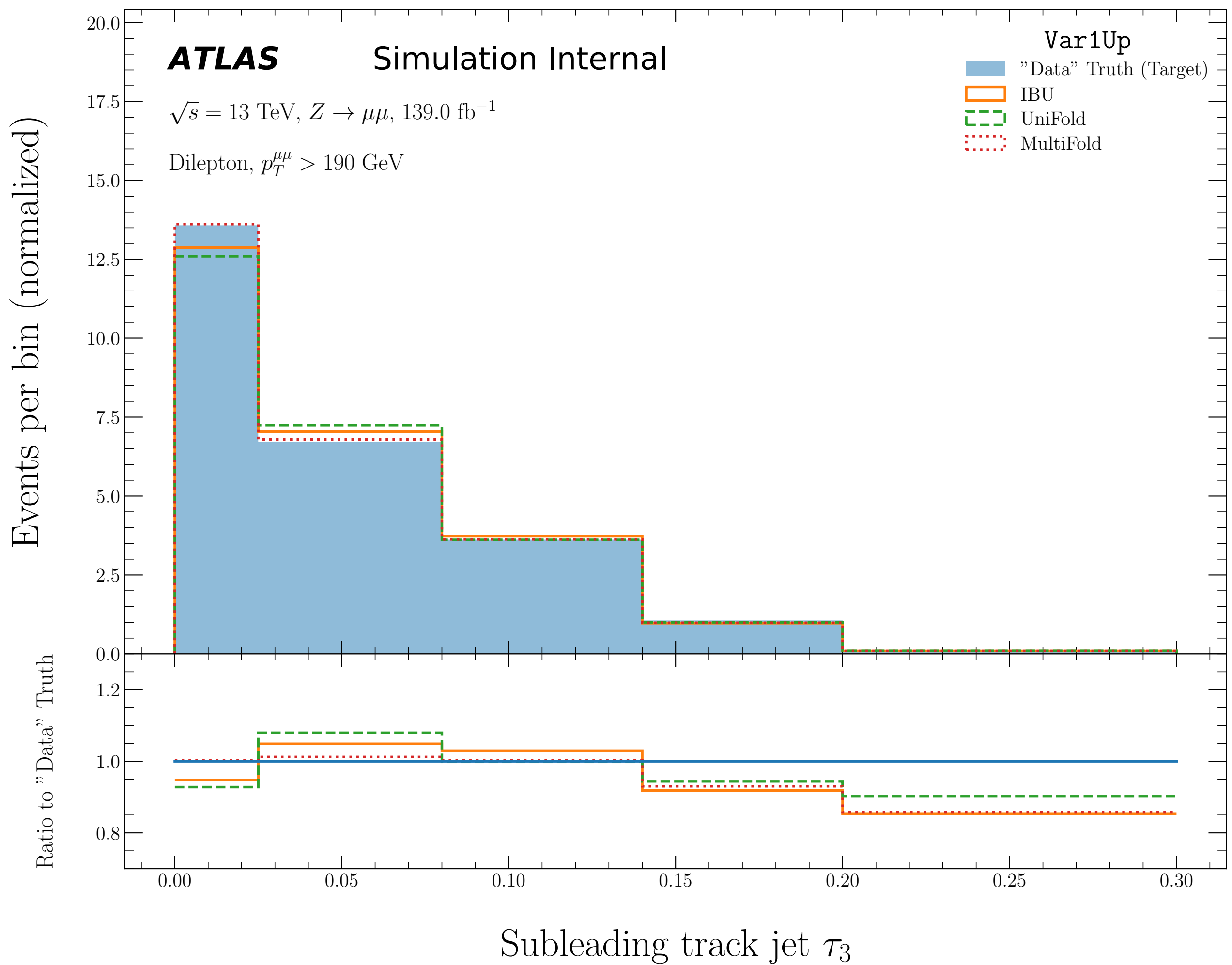


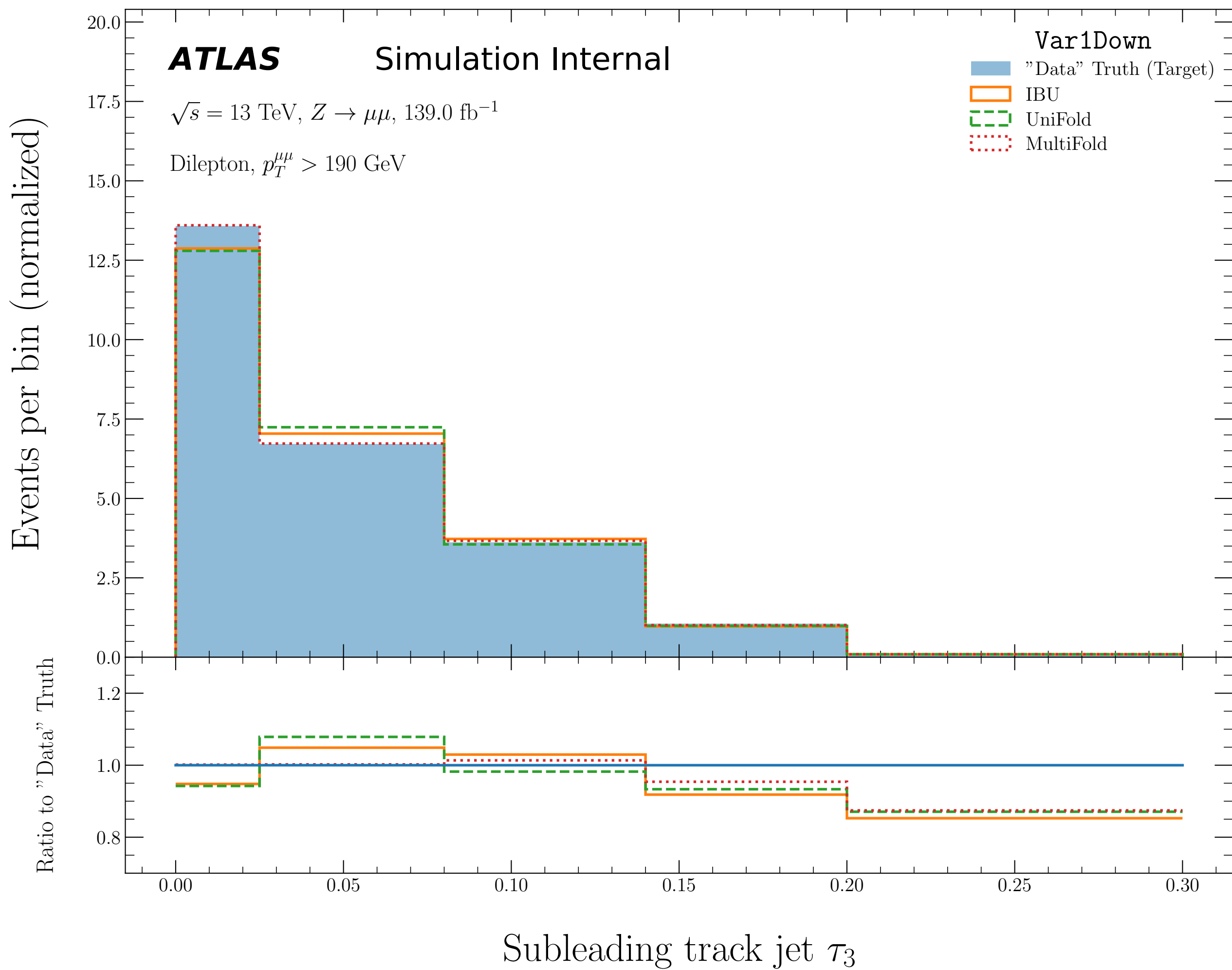


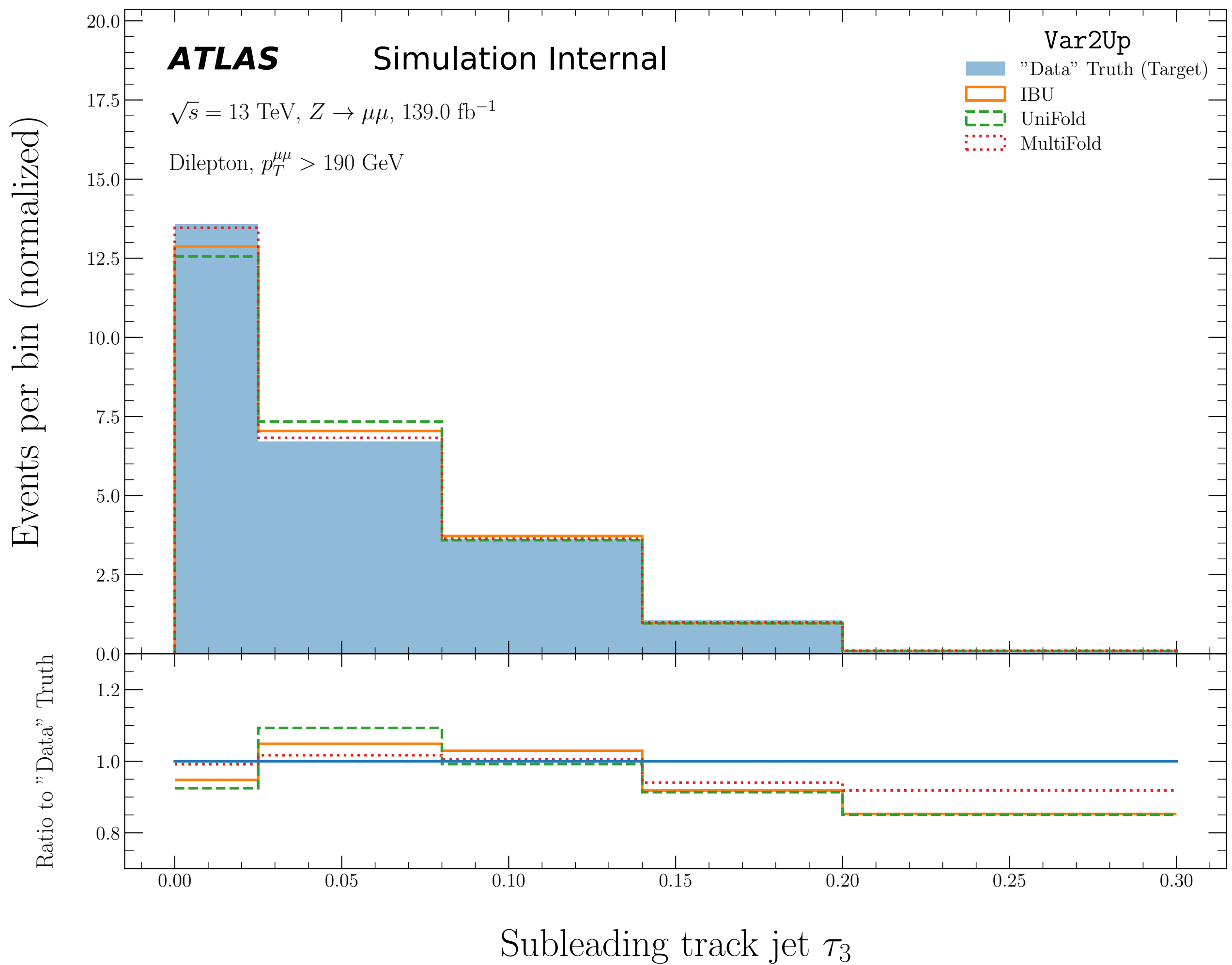


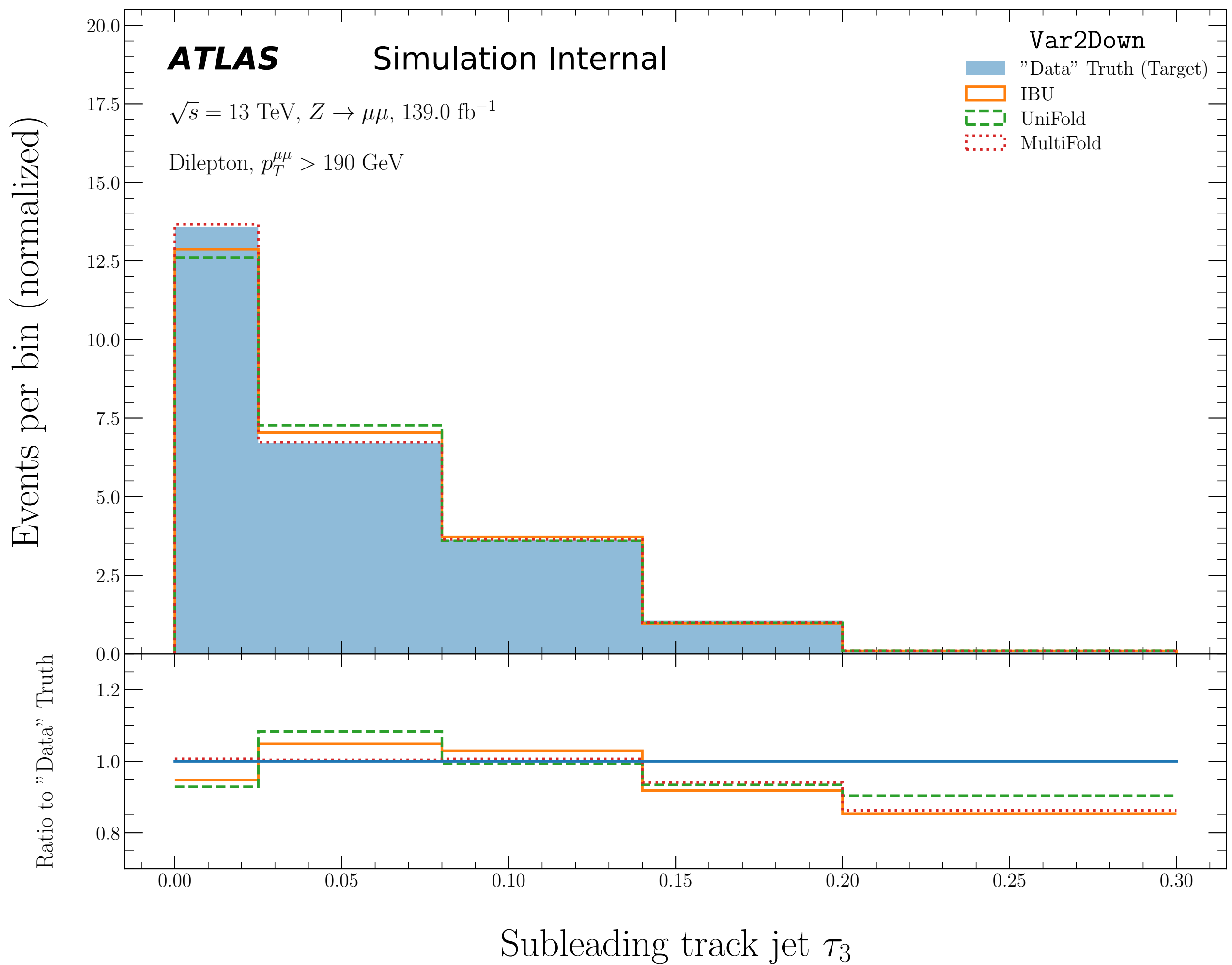


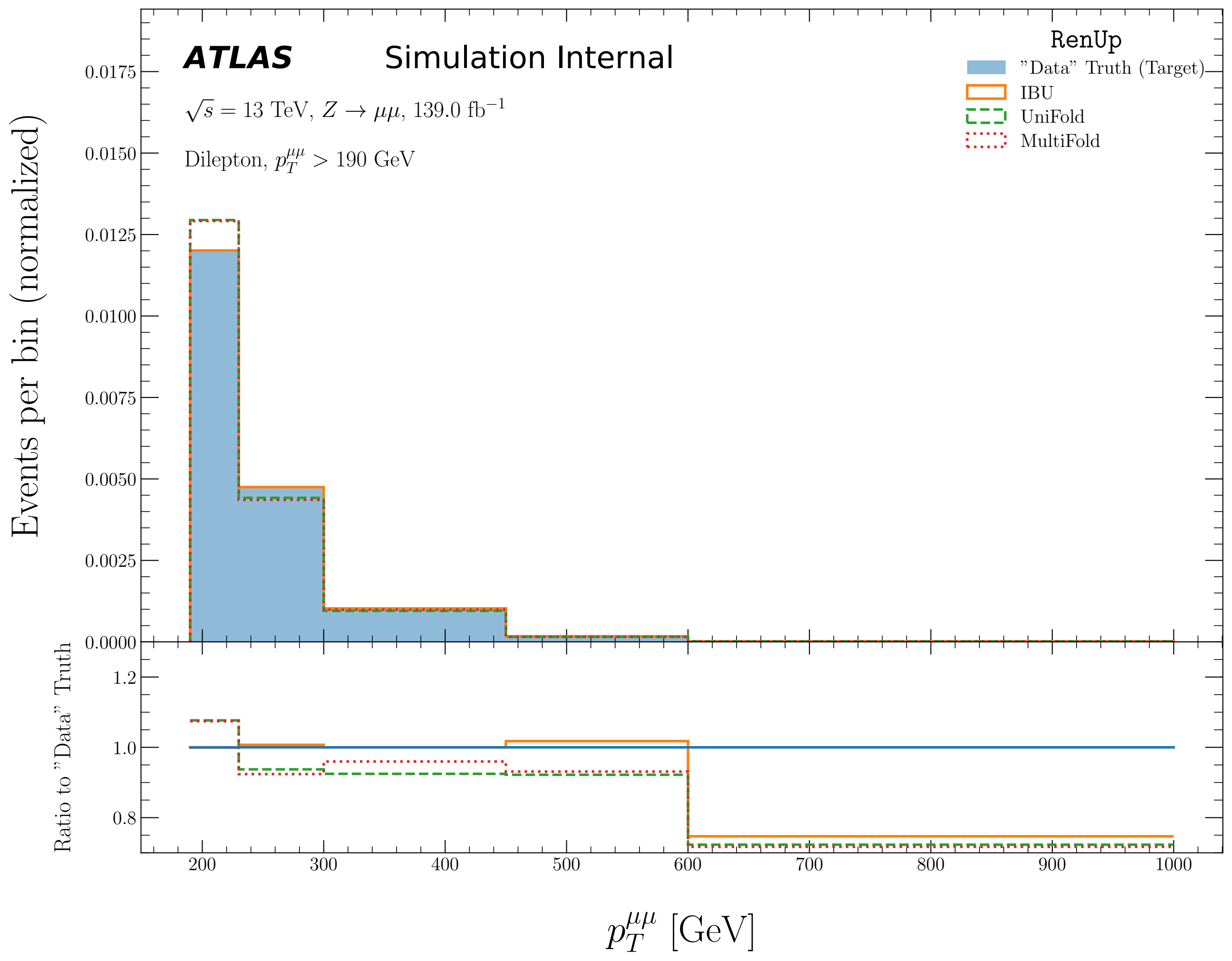


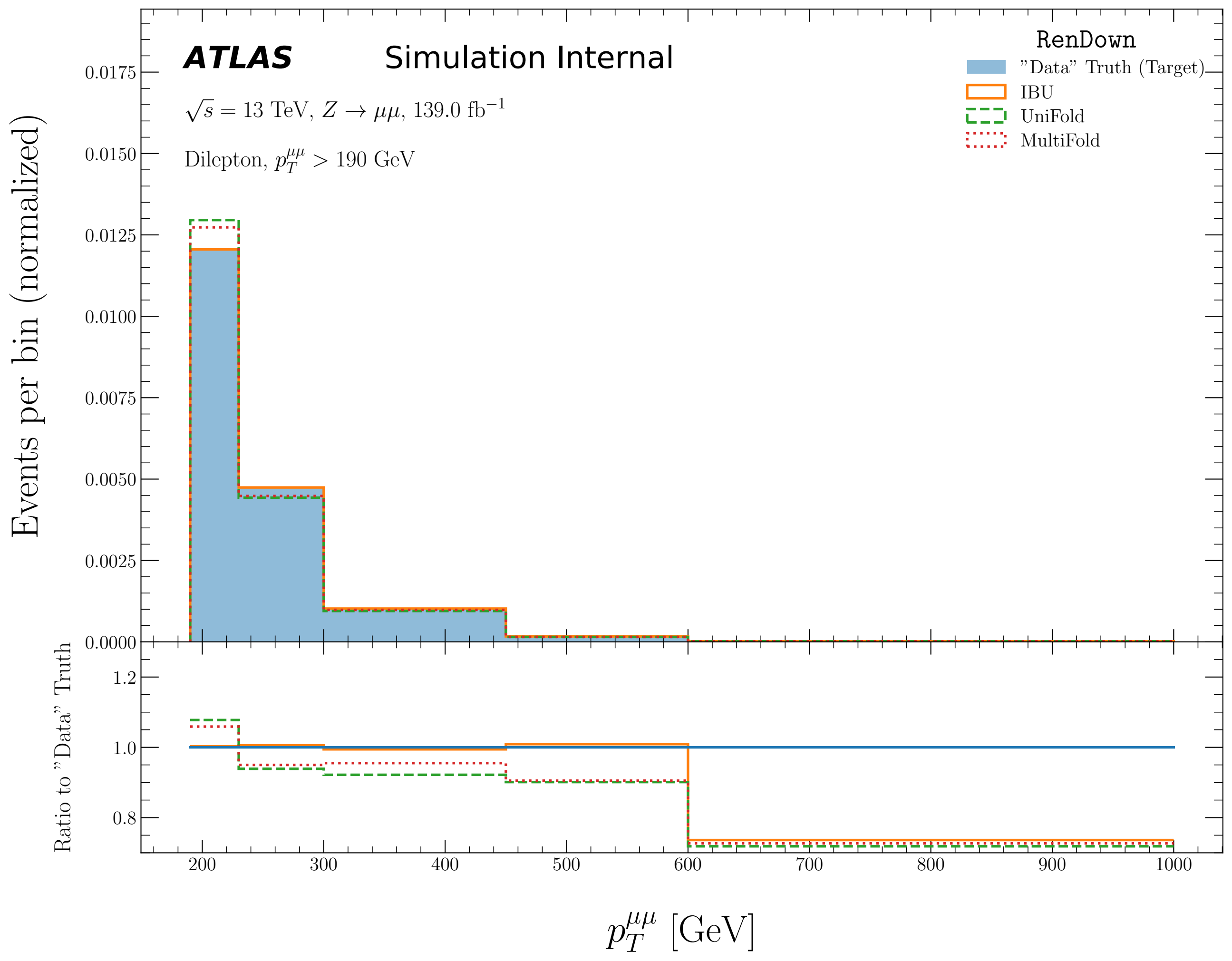


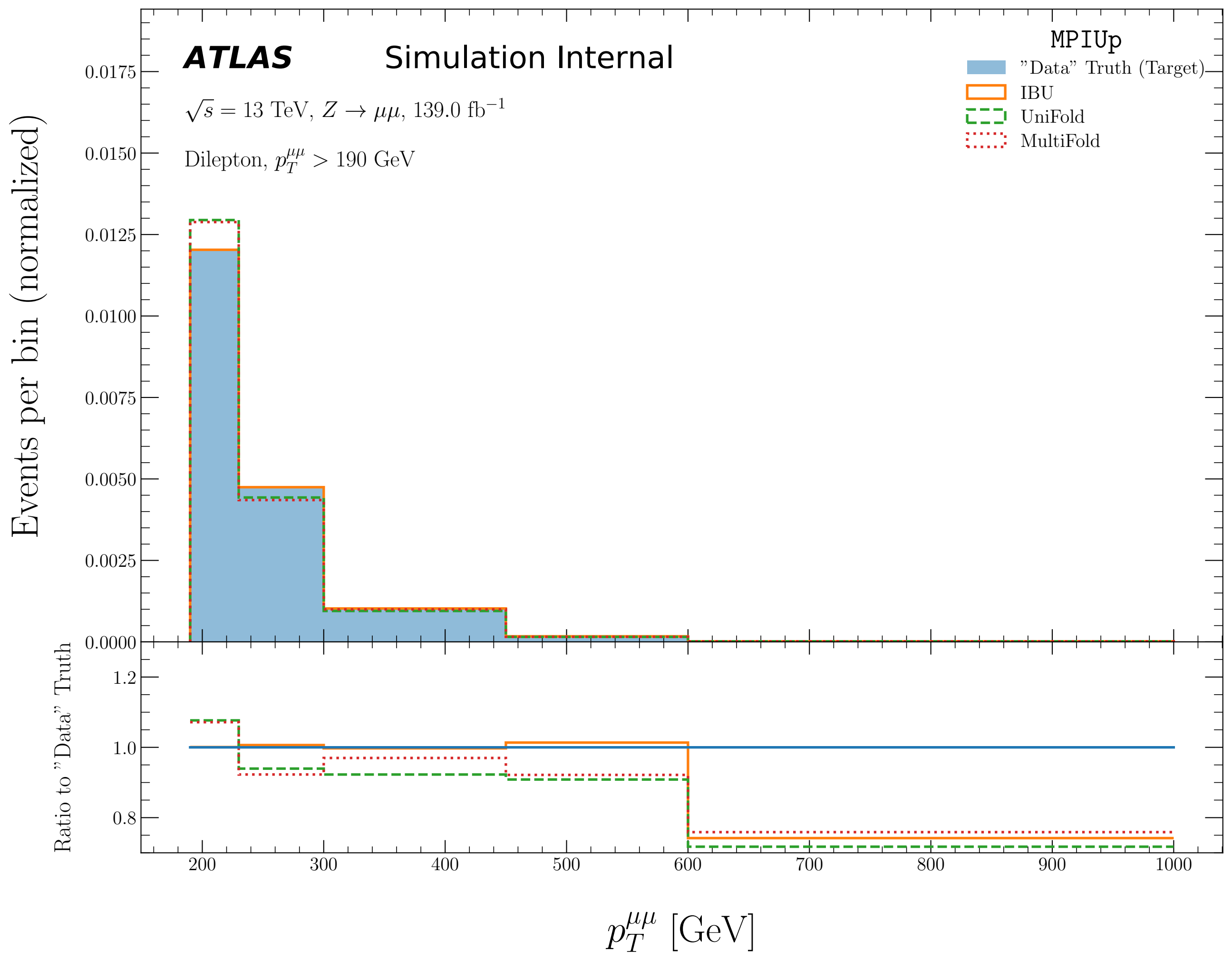


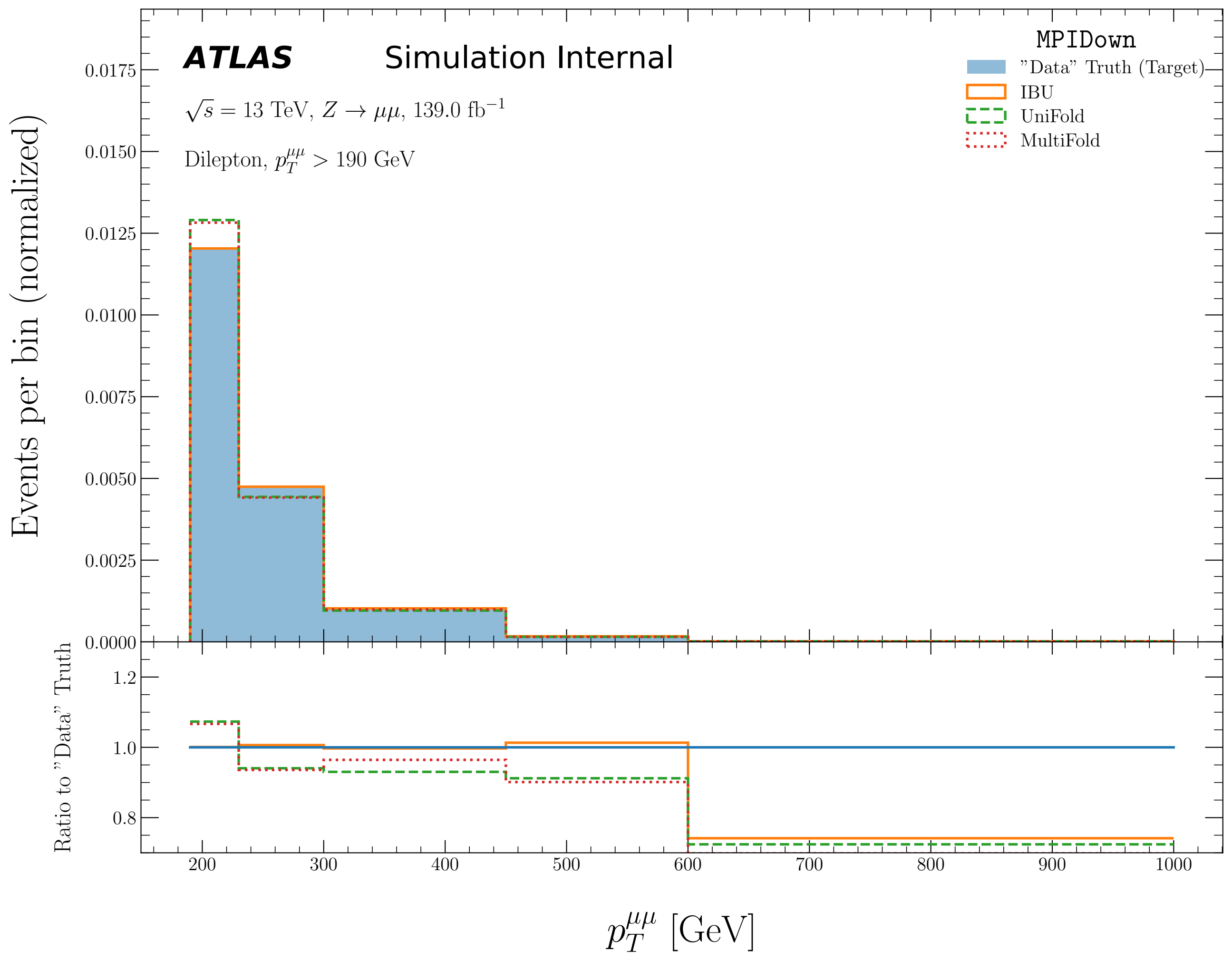


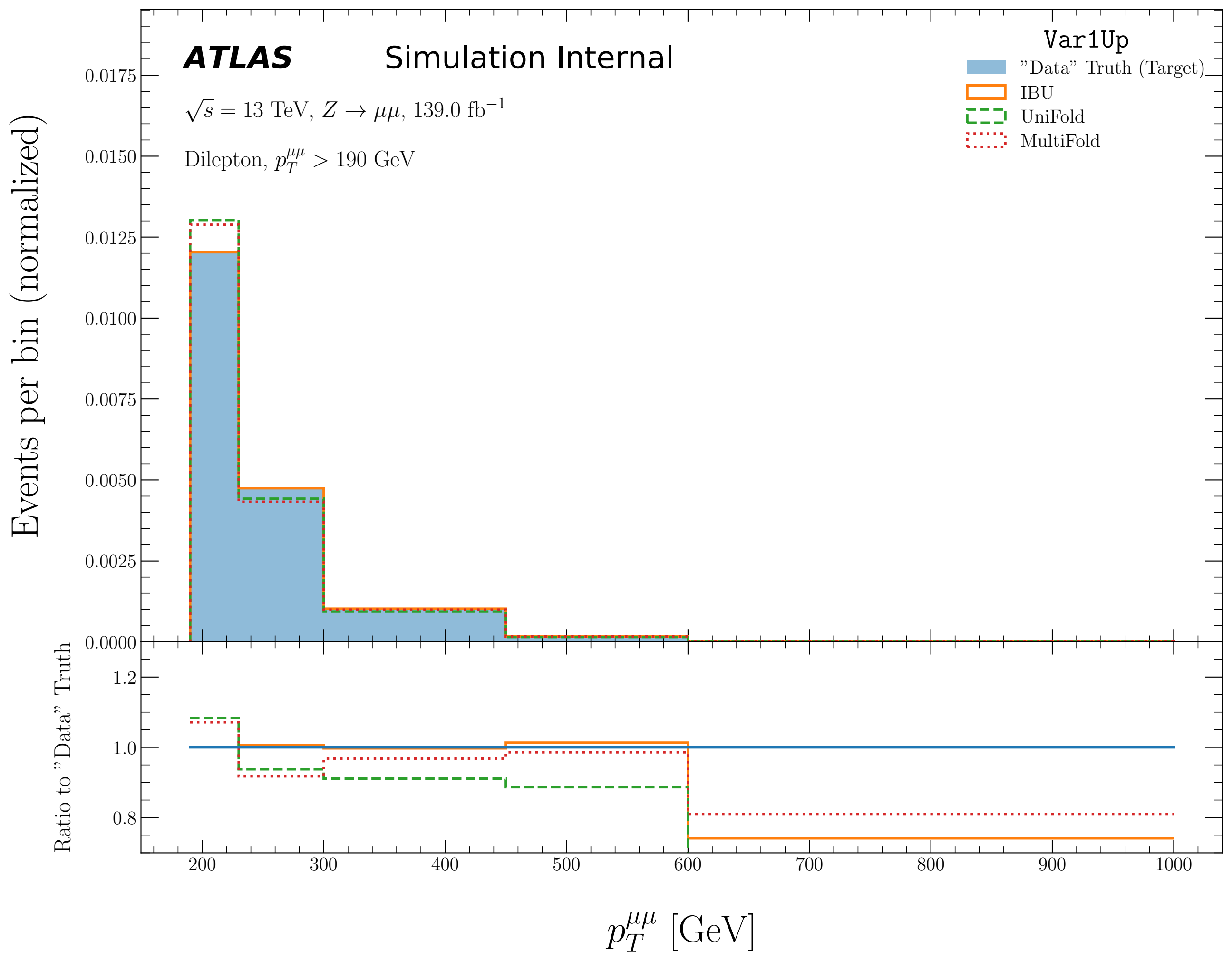


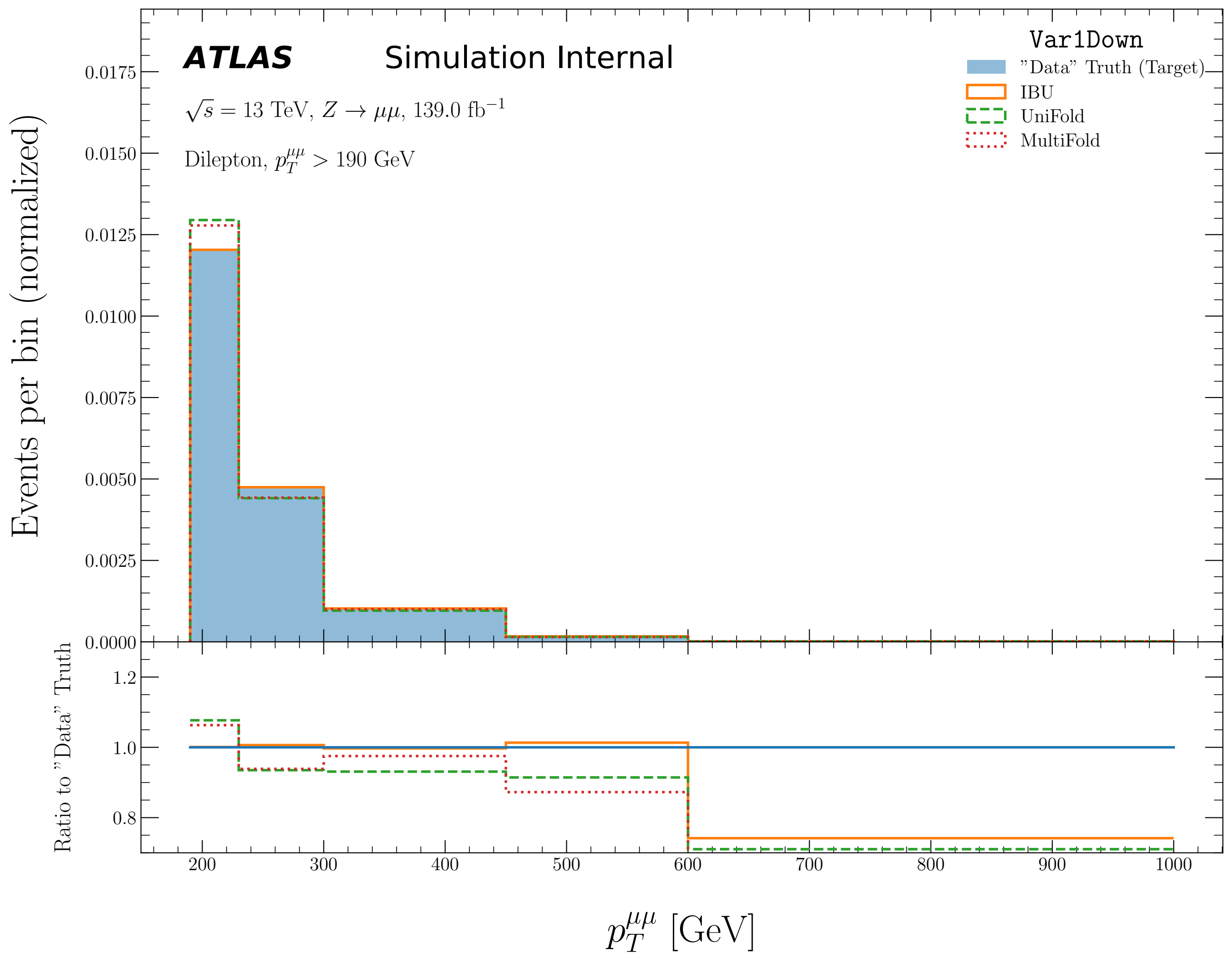


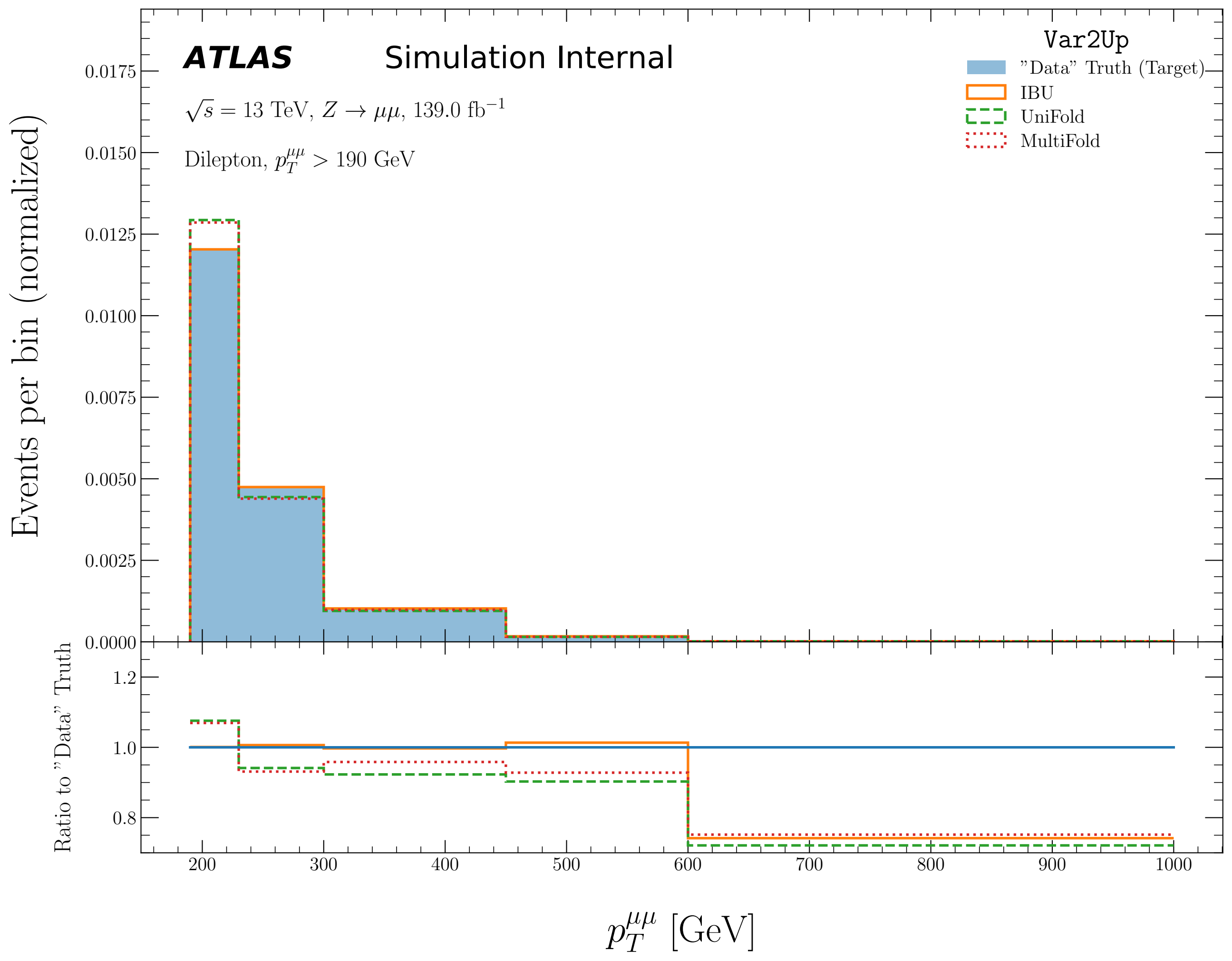


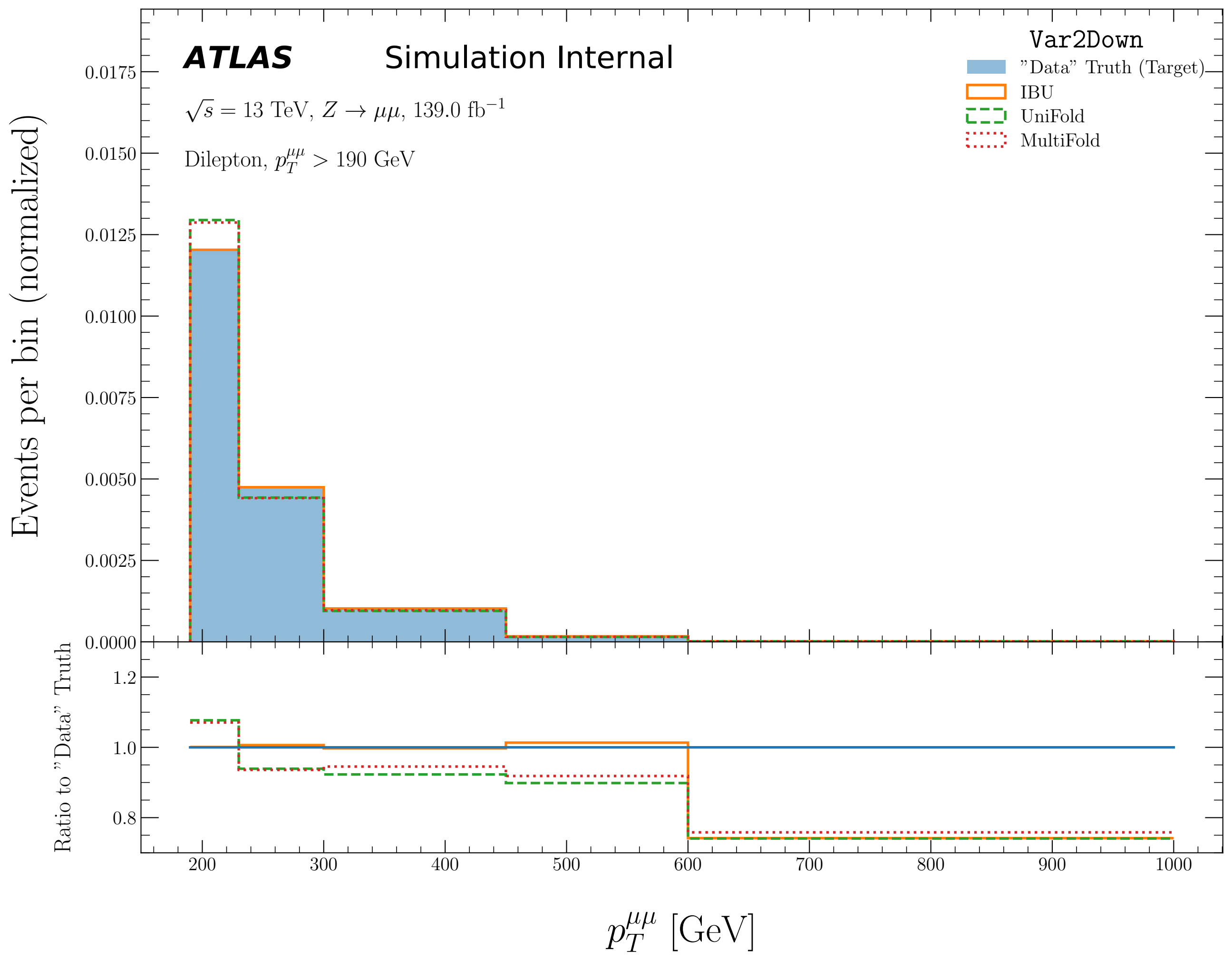


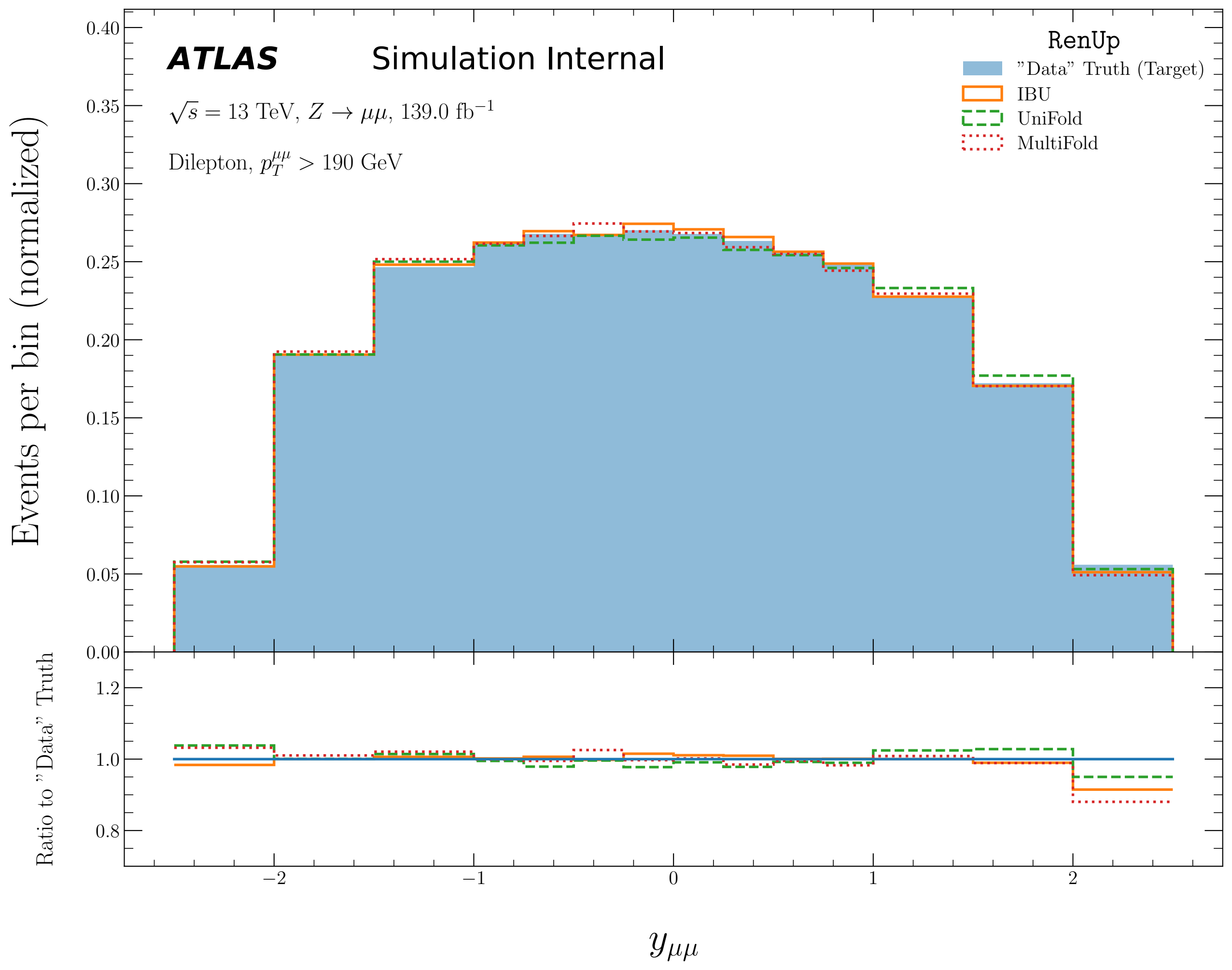


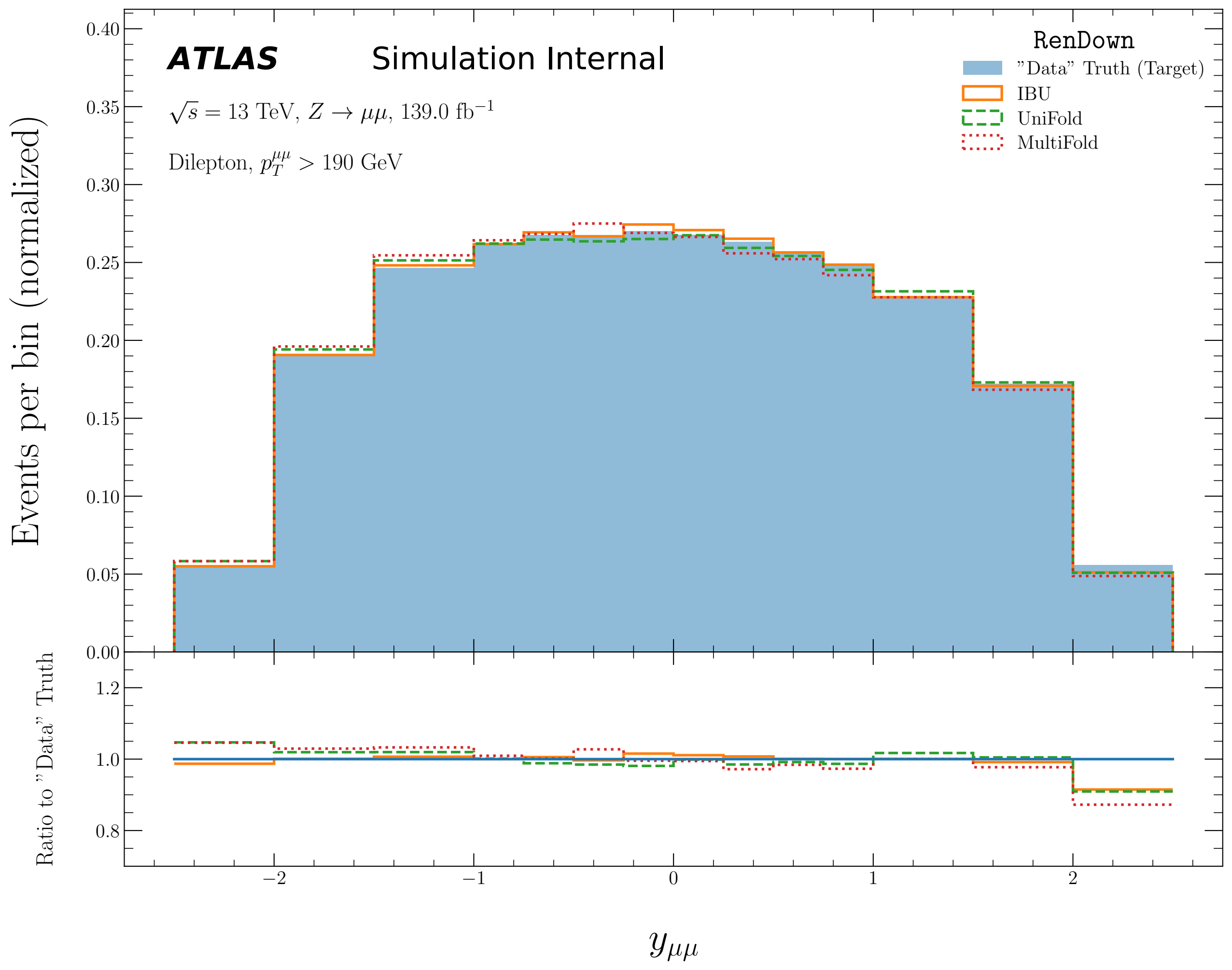












Events per bin (normalized)

ATLAS

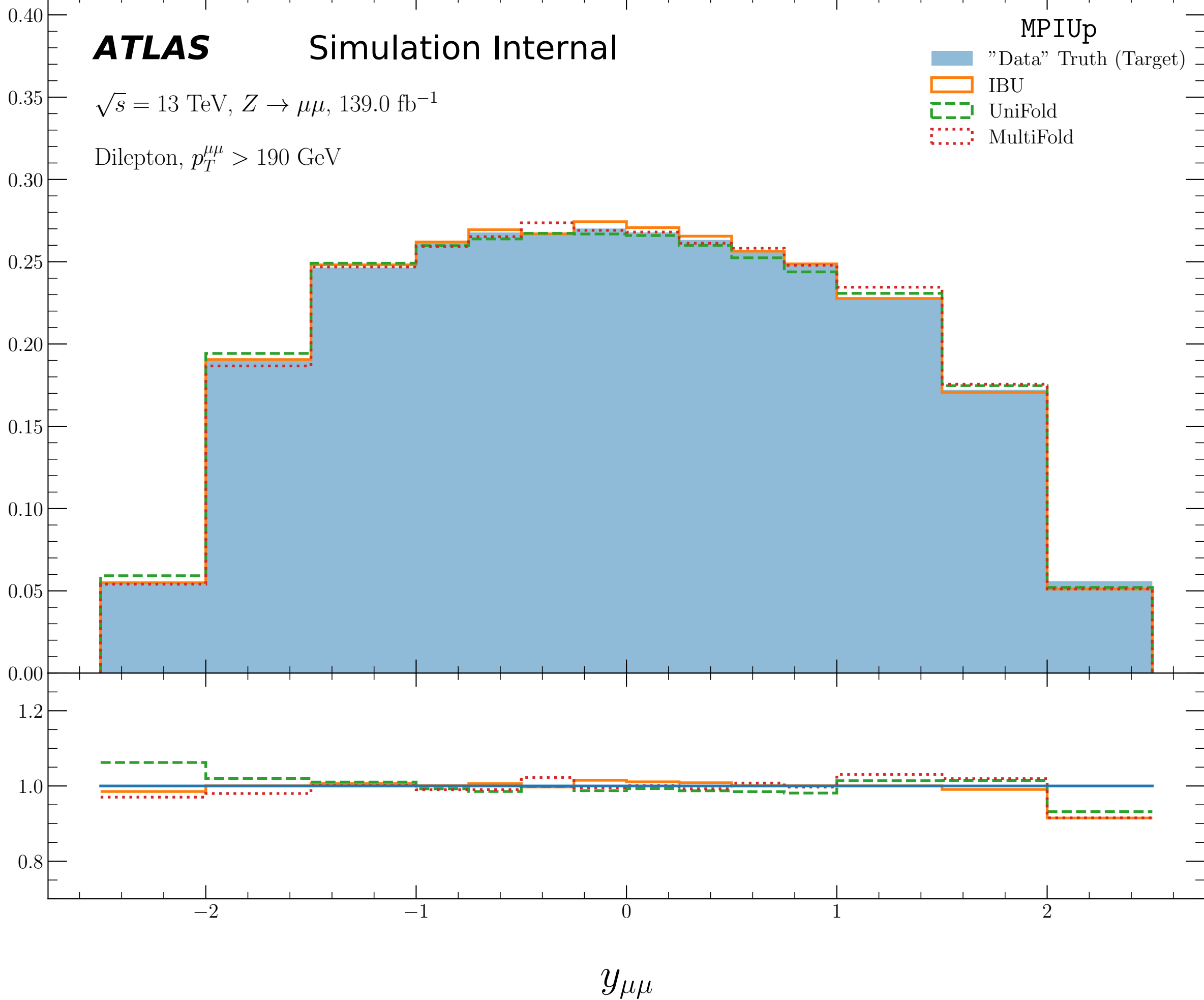
Simulation Internal

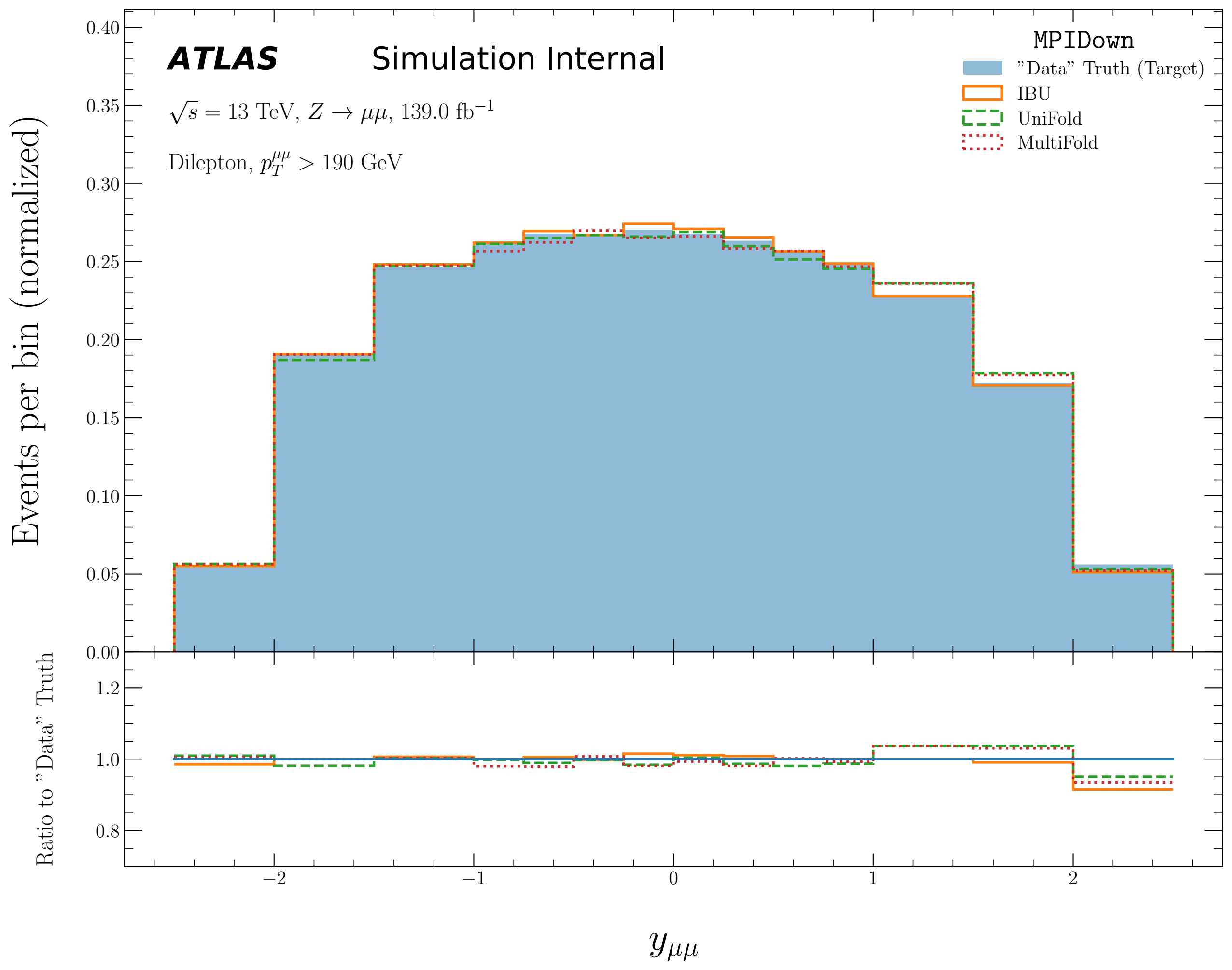
$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

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

MPIUp

- "Data" Truth (Target)
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$\sqrt{s} = 13 \text{ TeV}, Z \rightarrow \mu\mu, 139.0 \text{ fb}^{-1}$

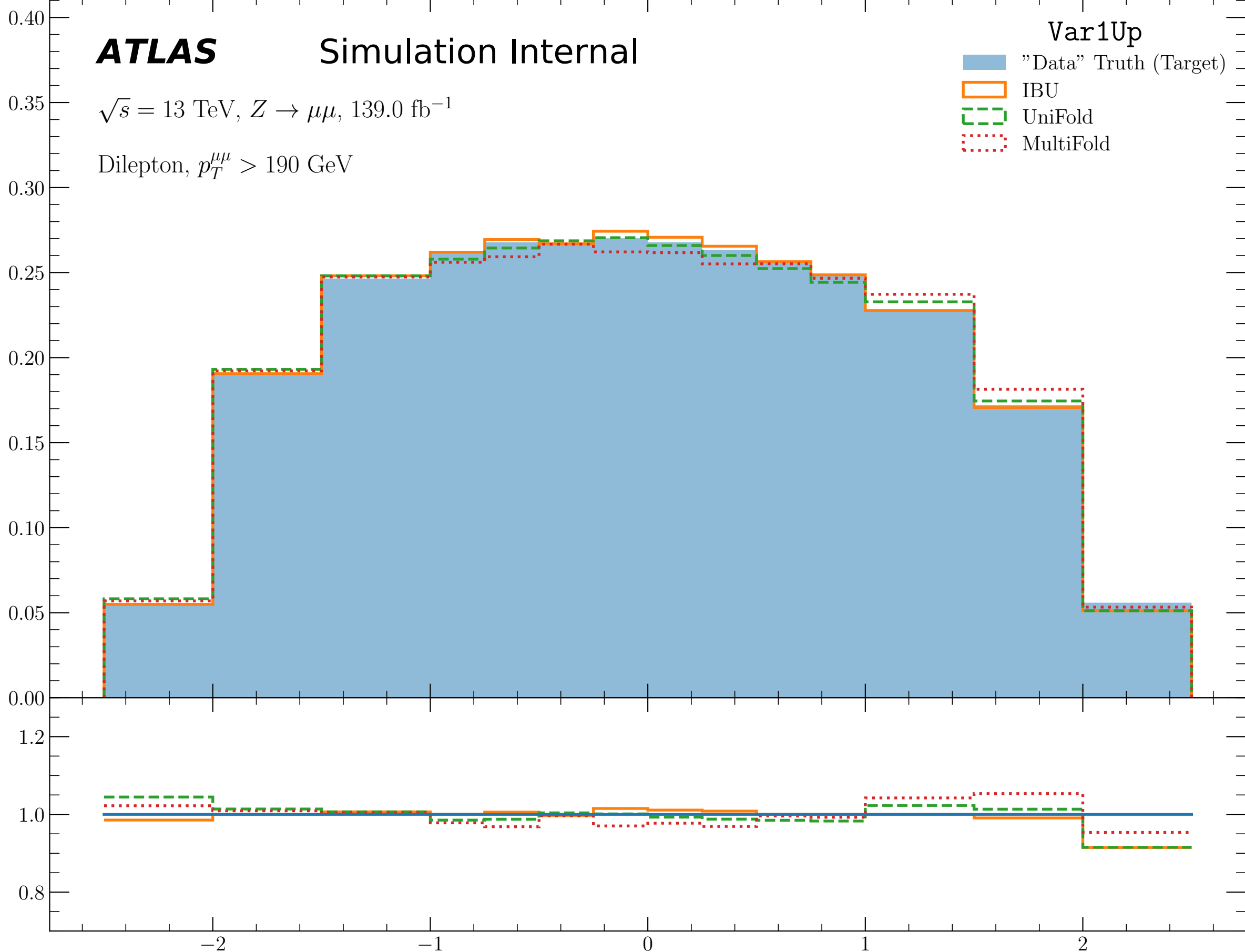
Dilepton, $p_T^{\mu\mu} > 190 \text{ GeV}$

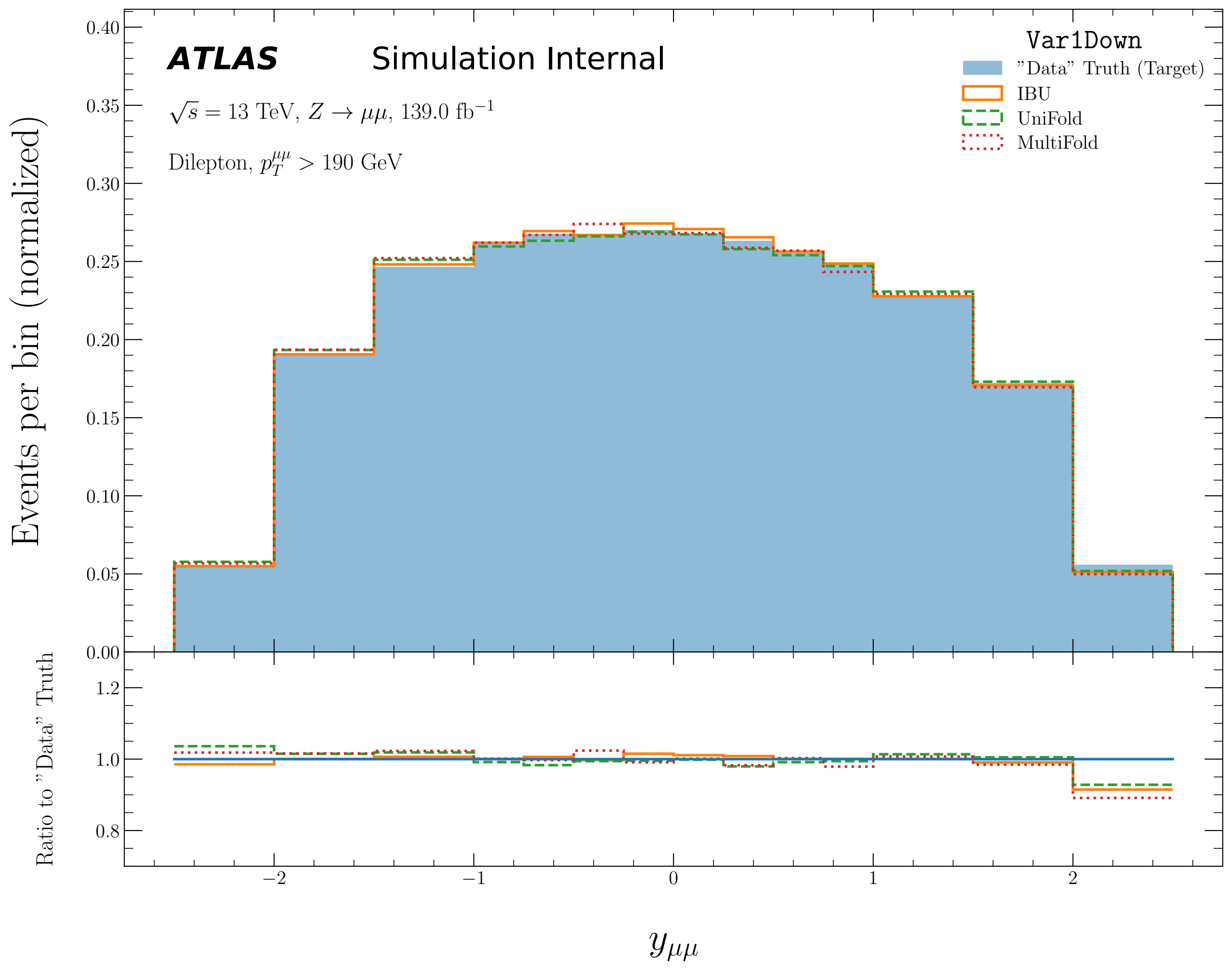
Var1Up

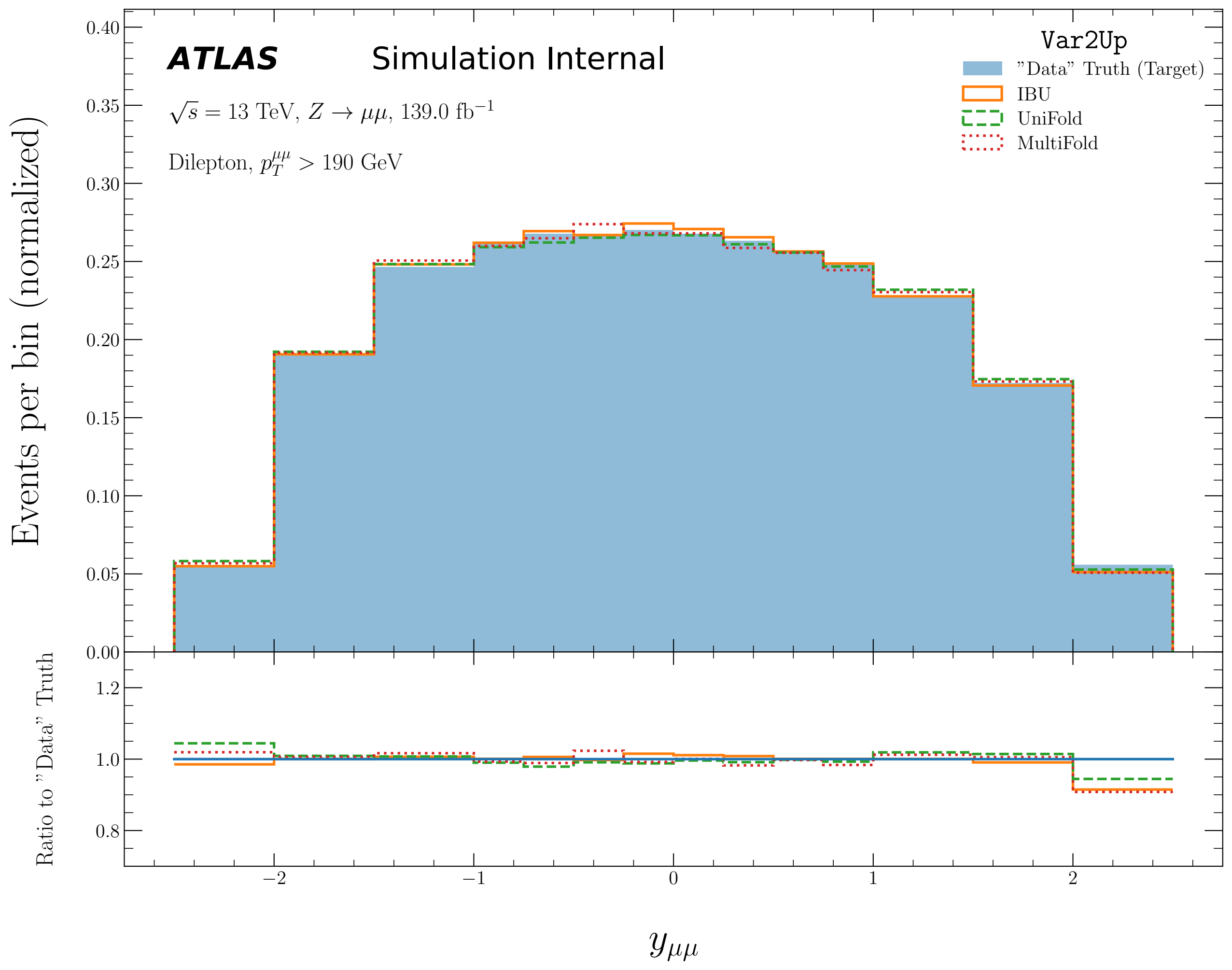
- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

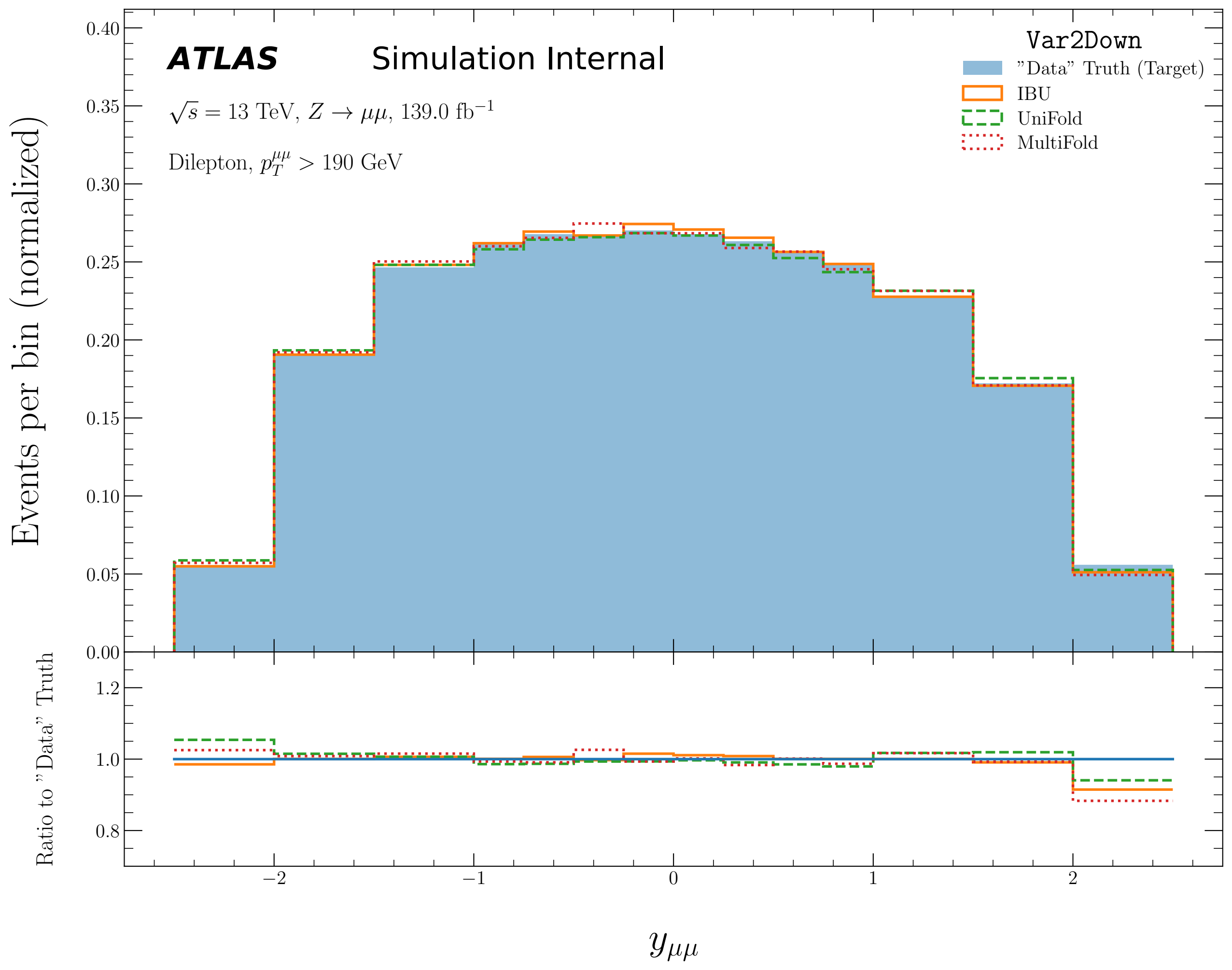
Ratio to "Data" Truth

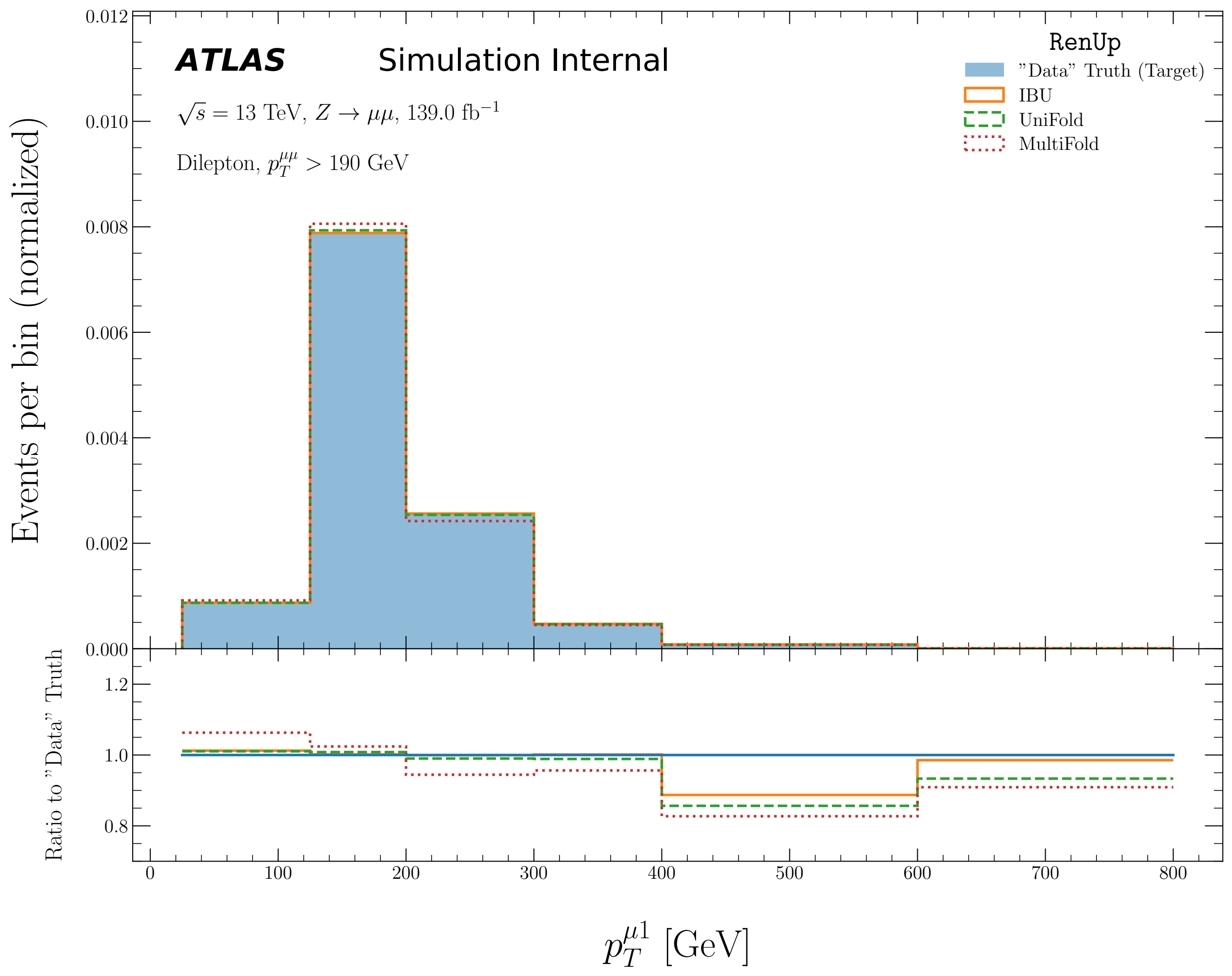
$y_{\mu\mu}$

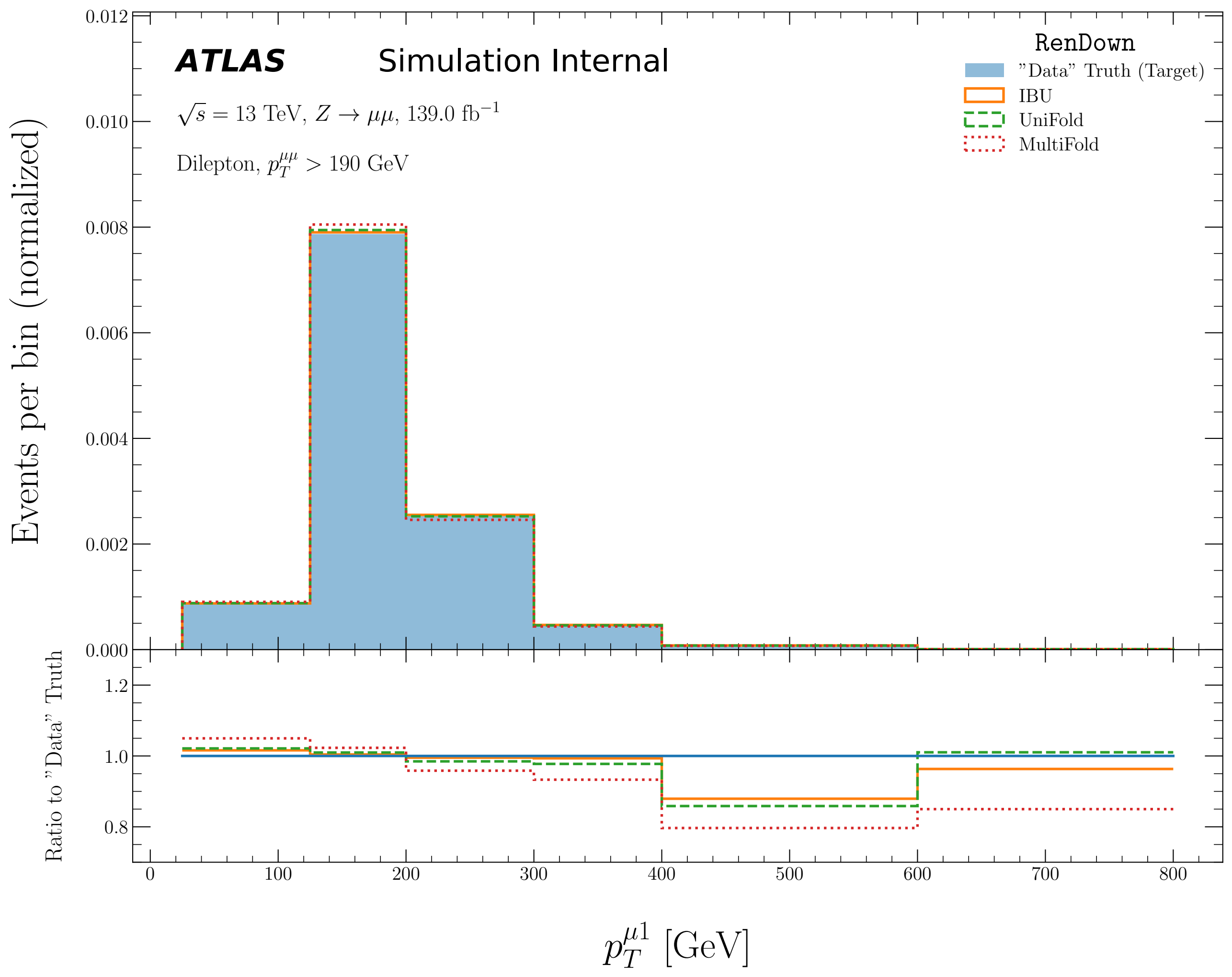


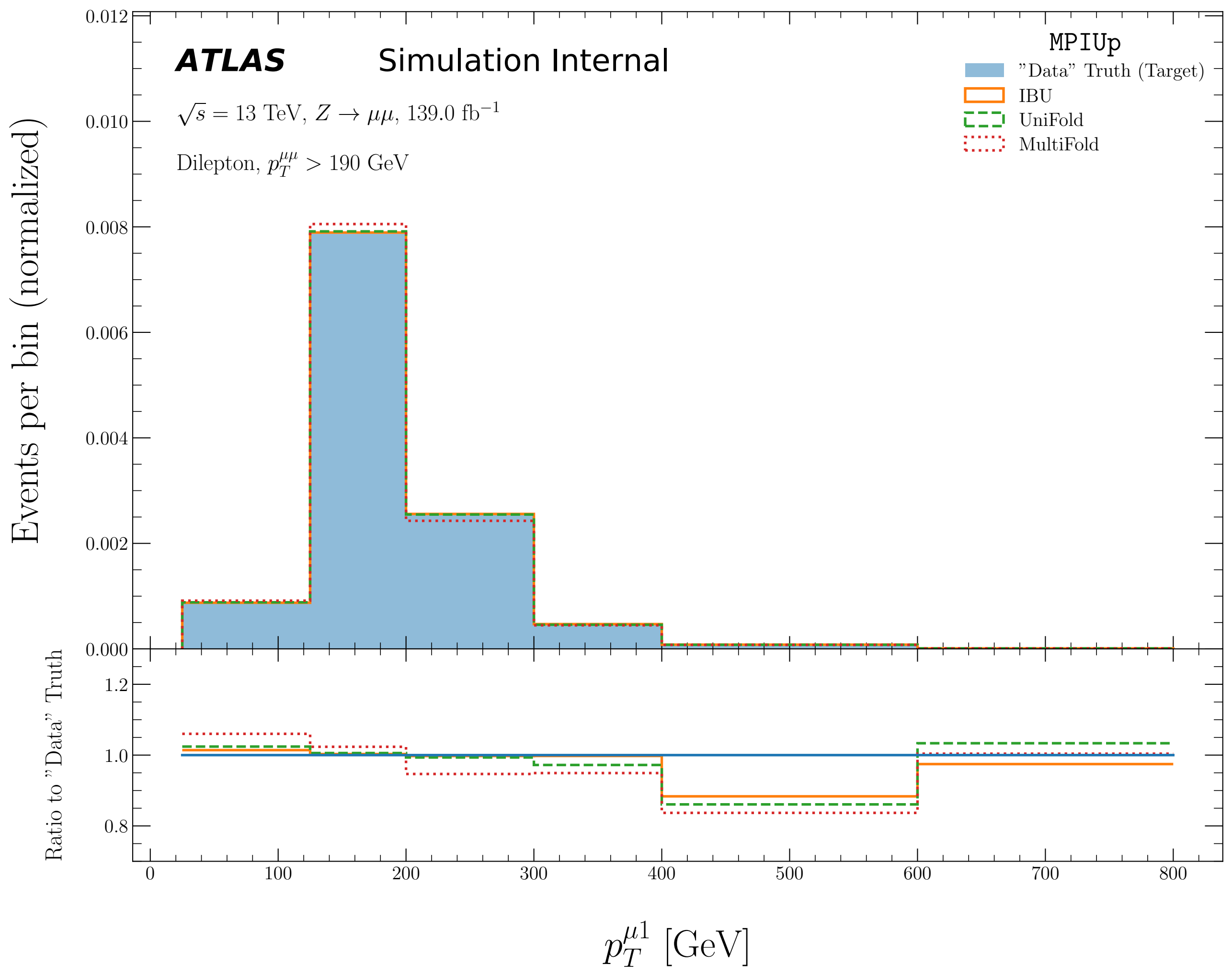


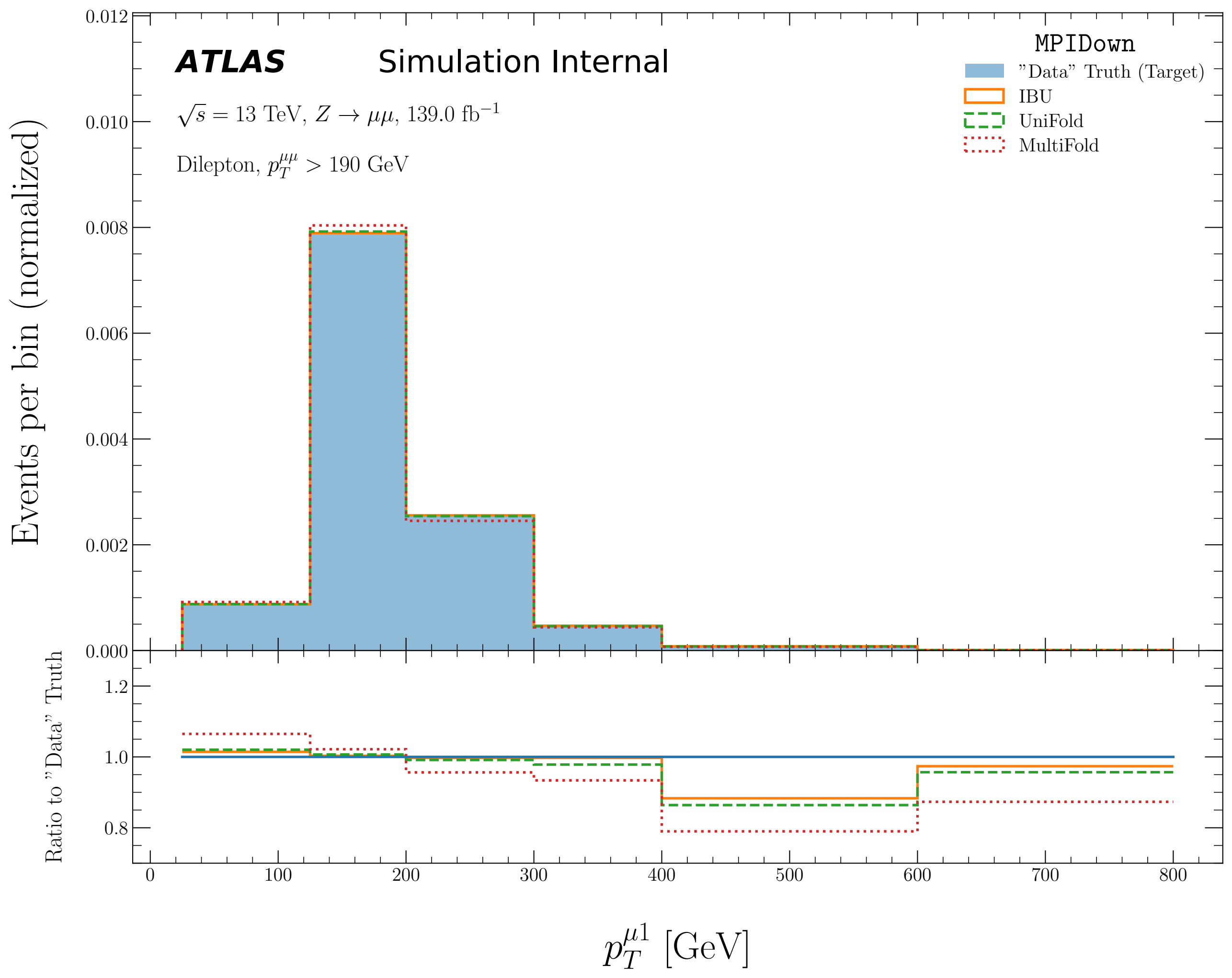


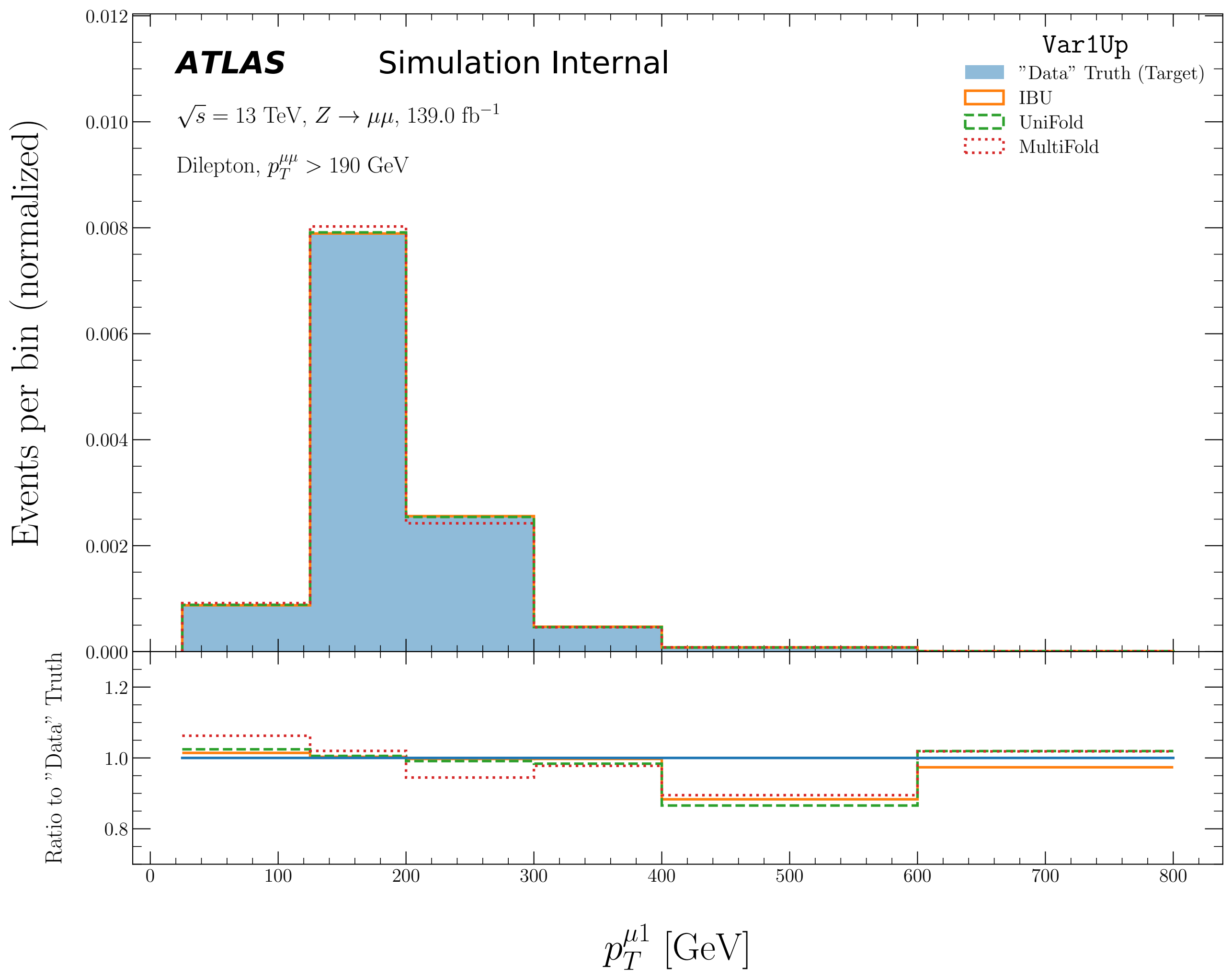


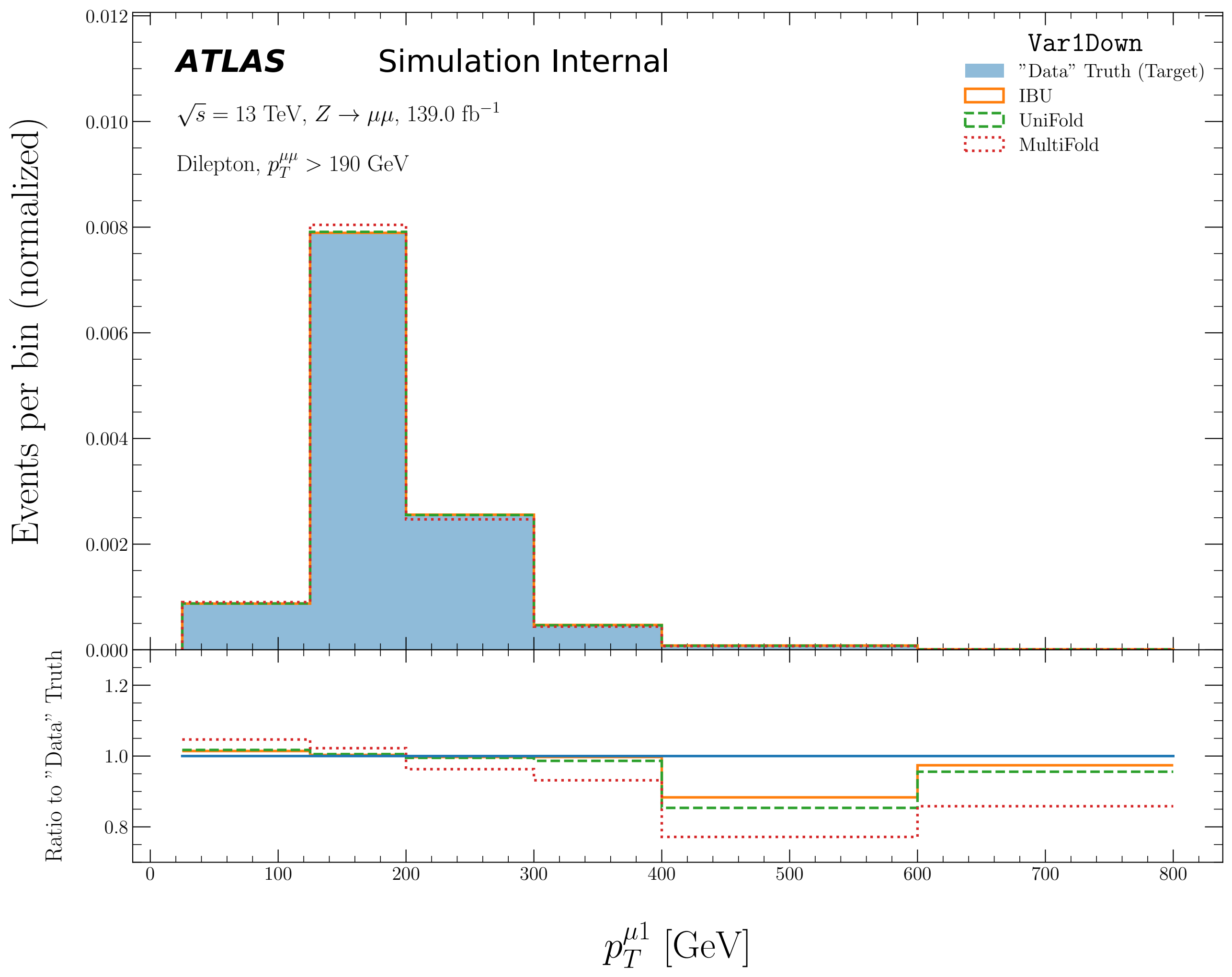


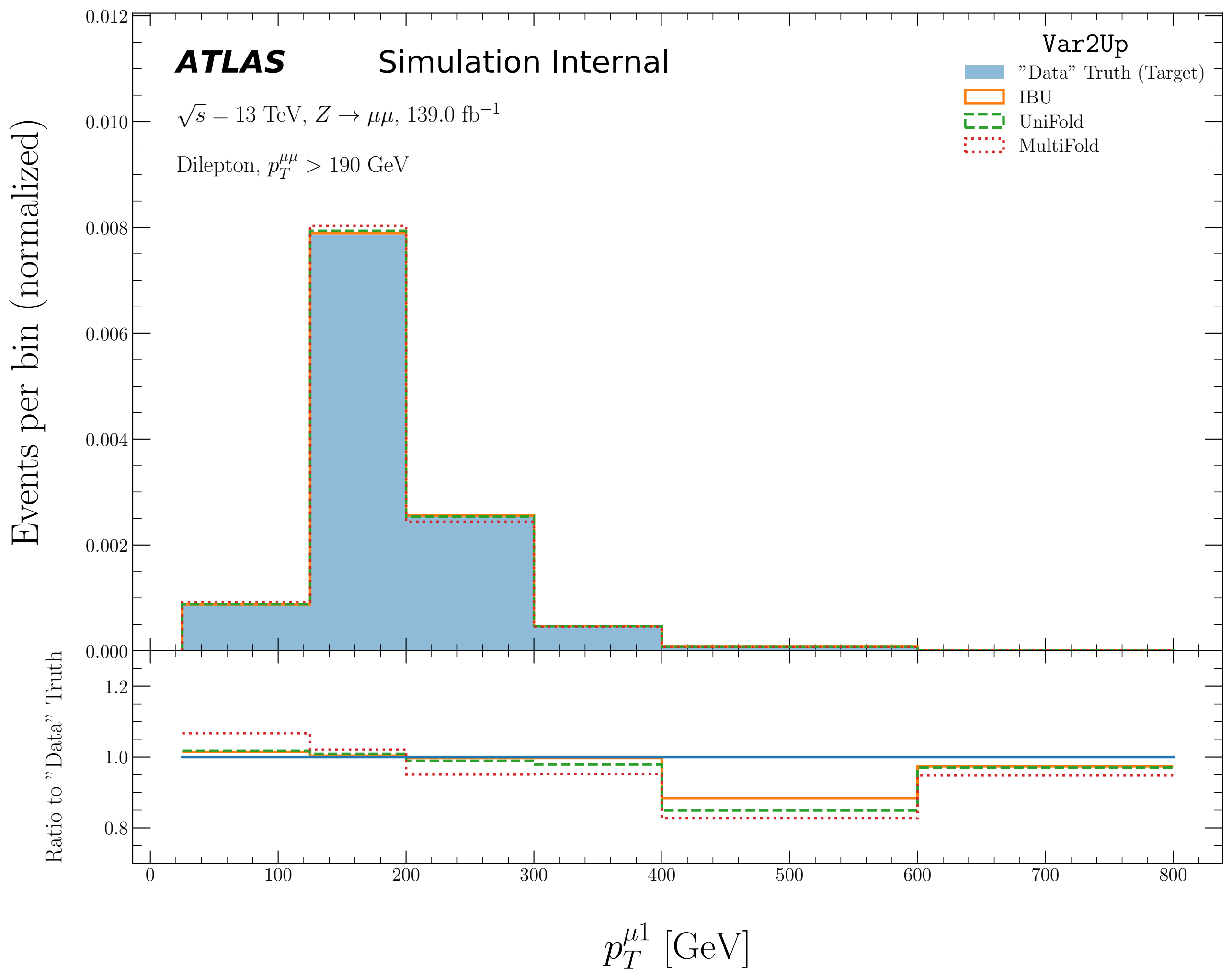


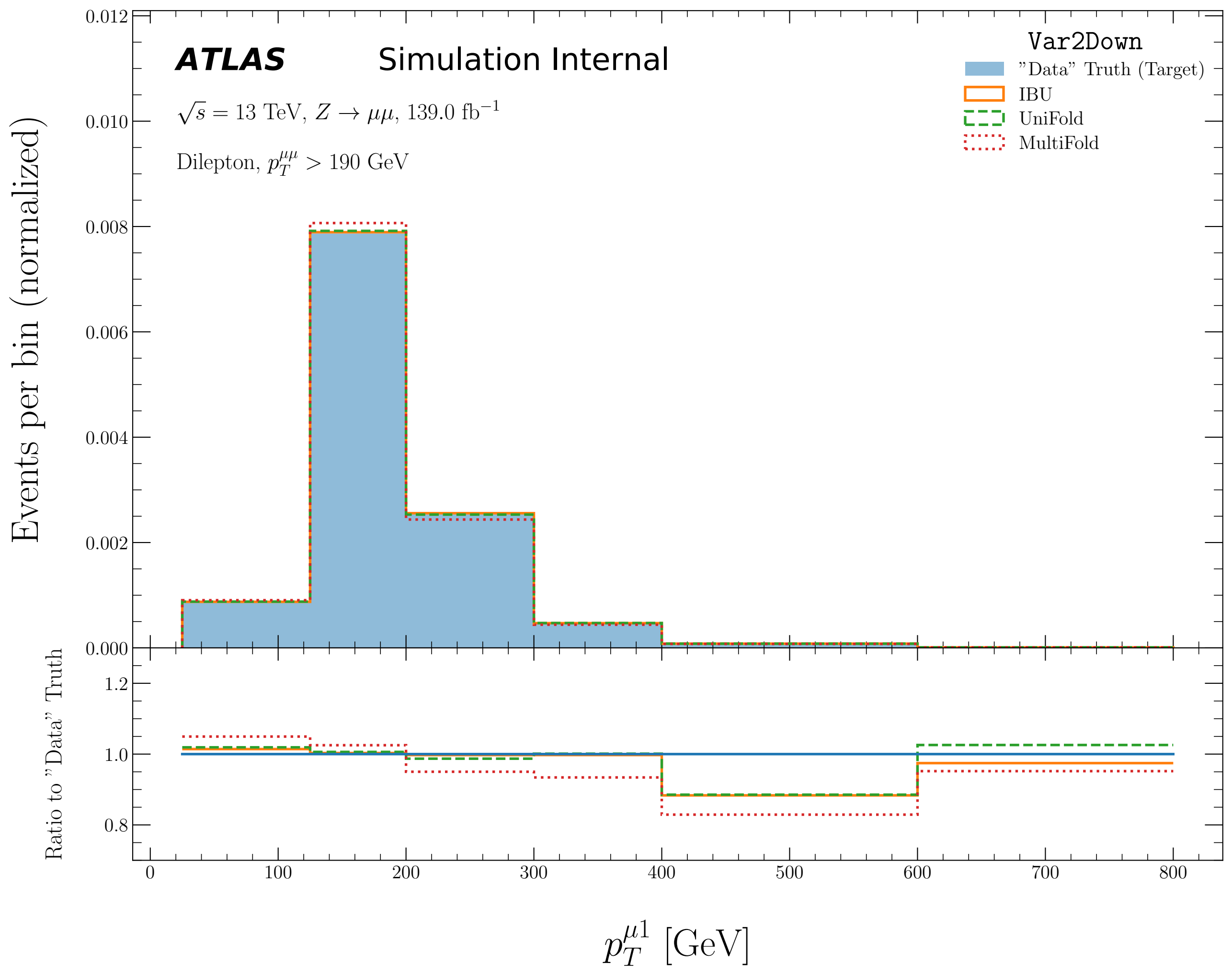


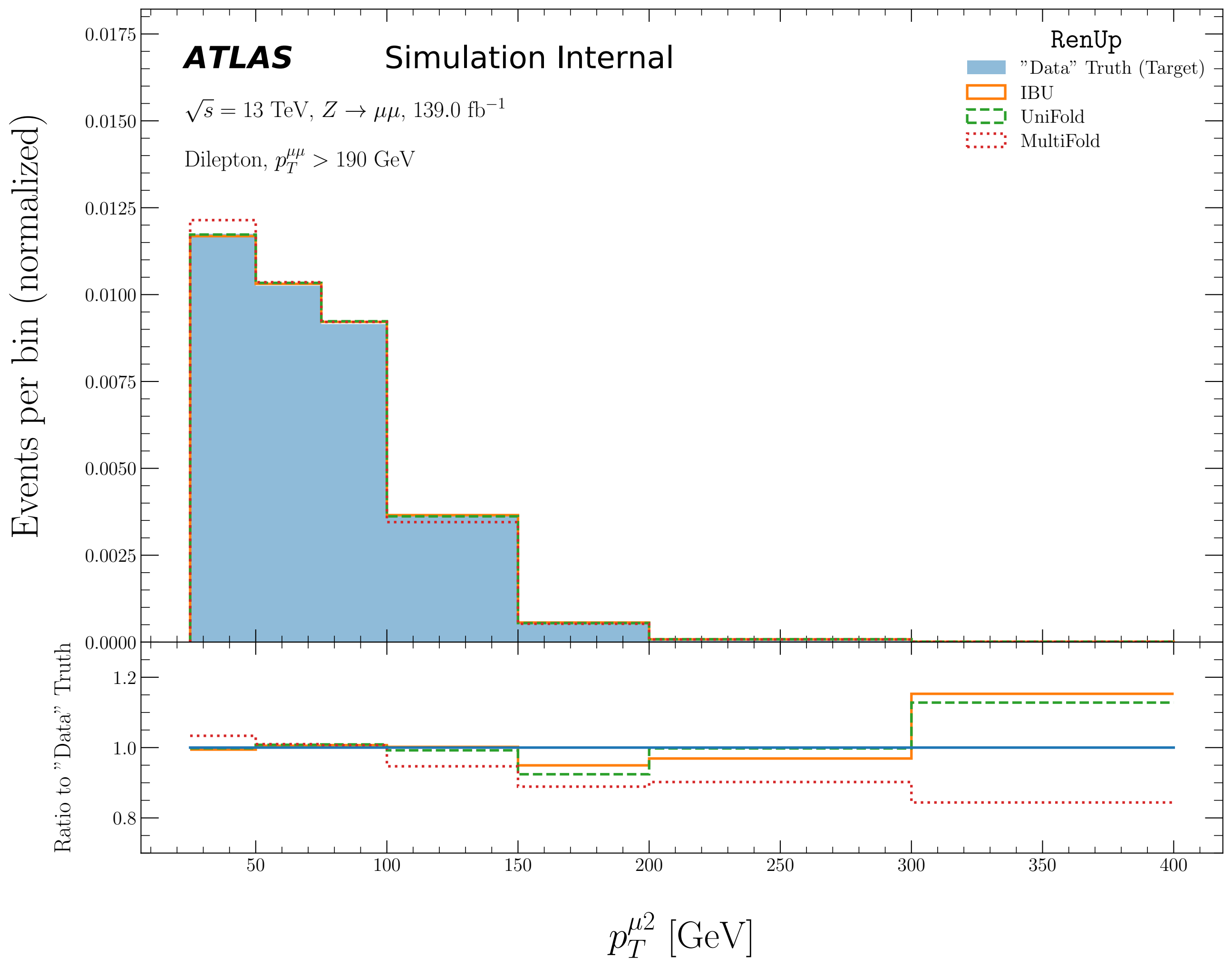


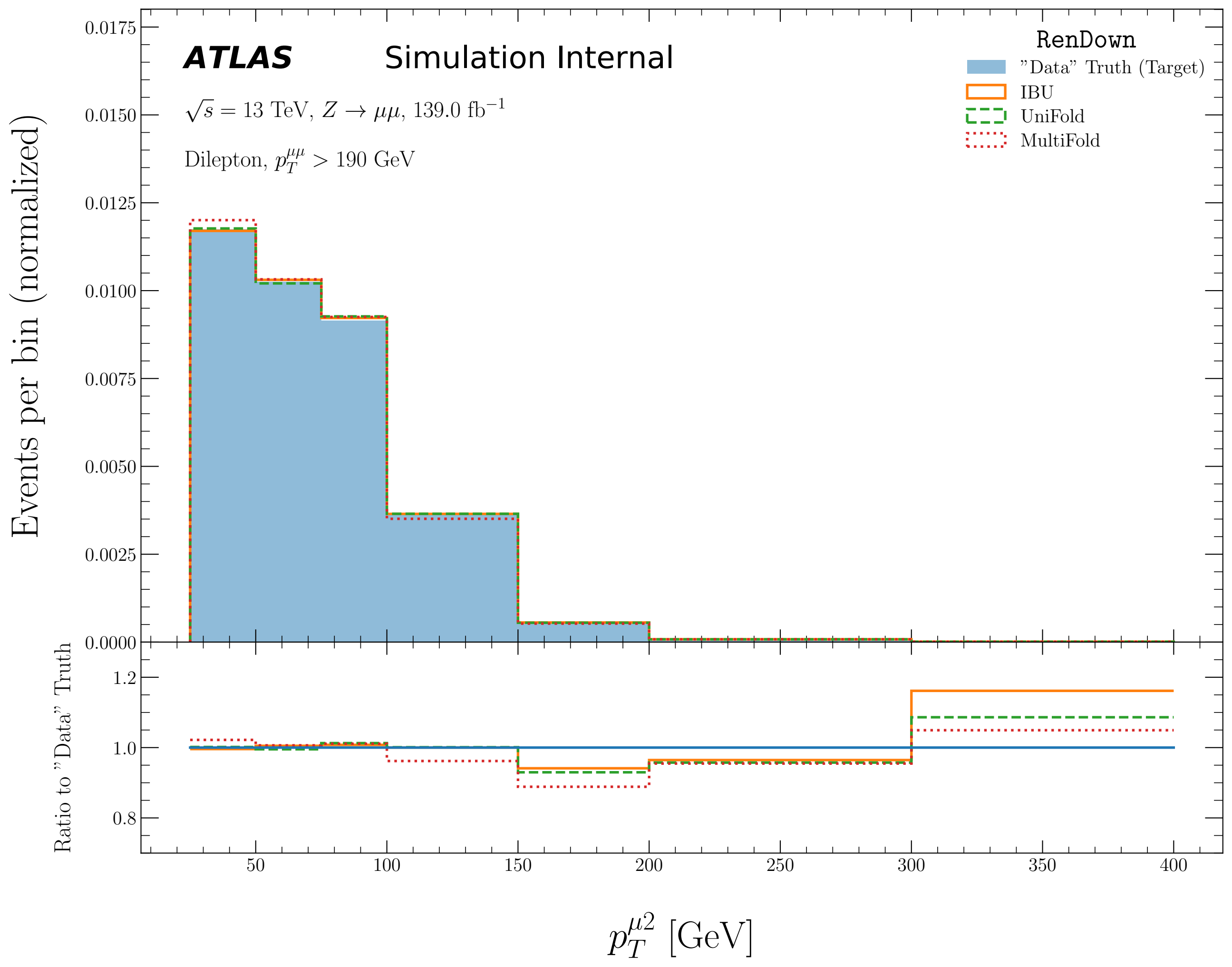


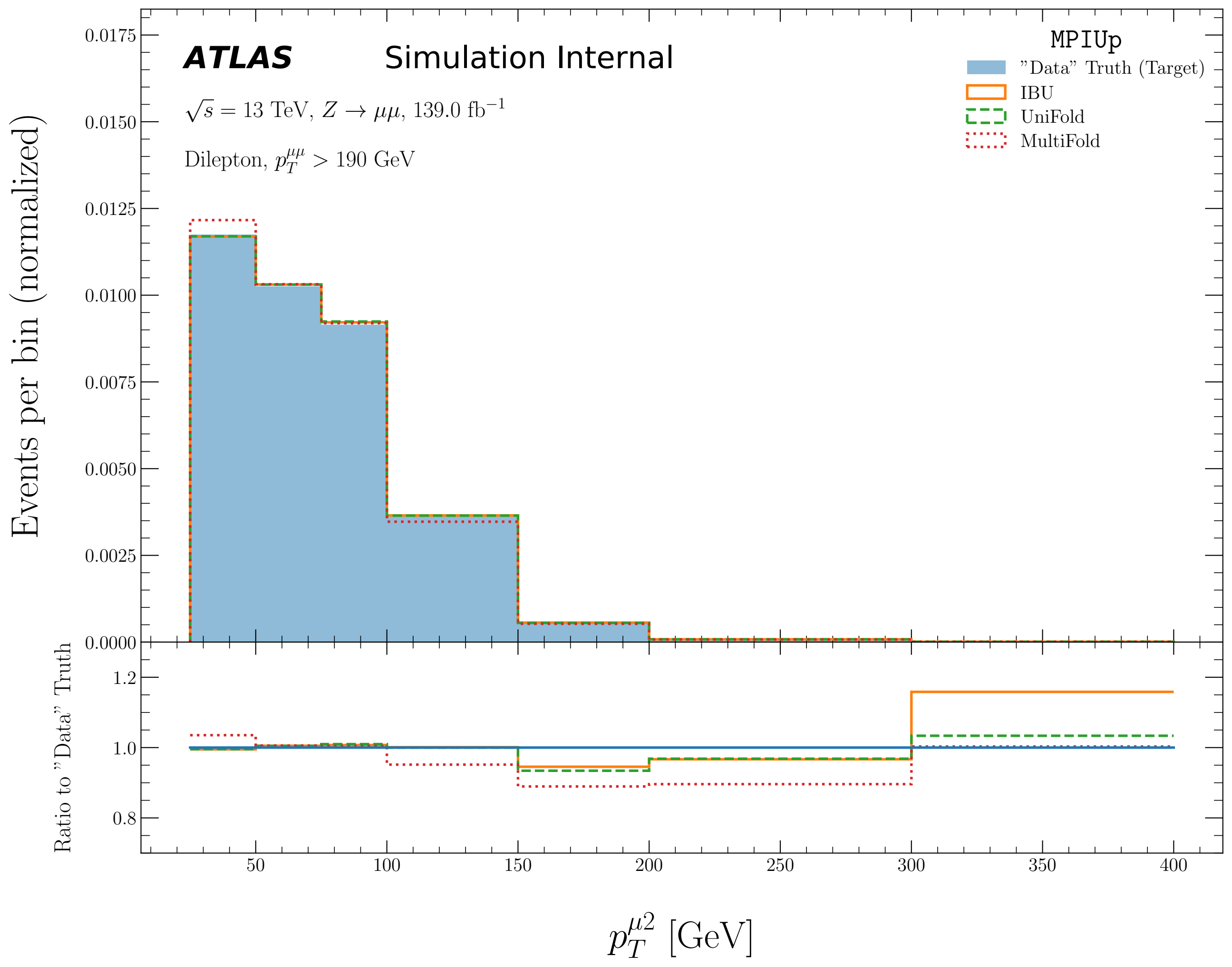


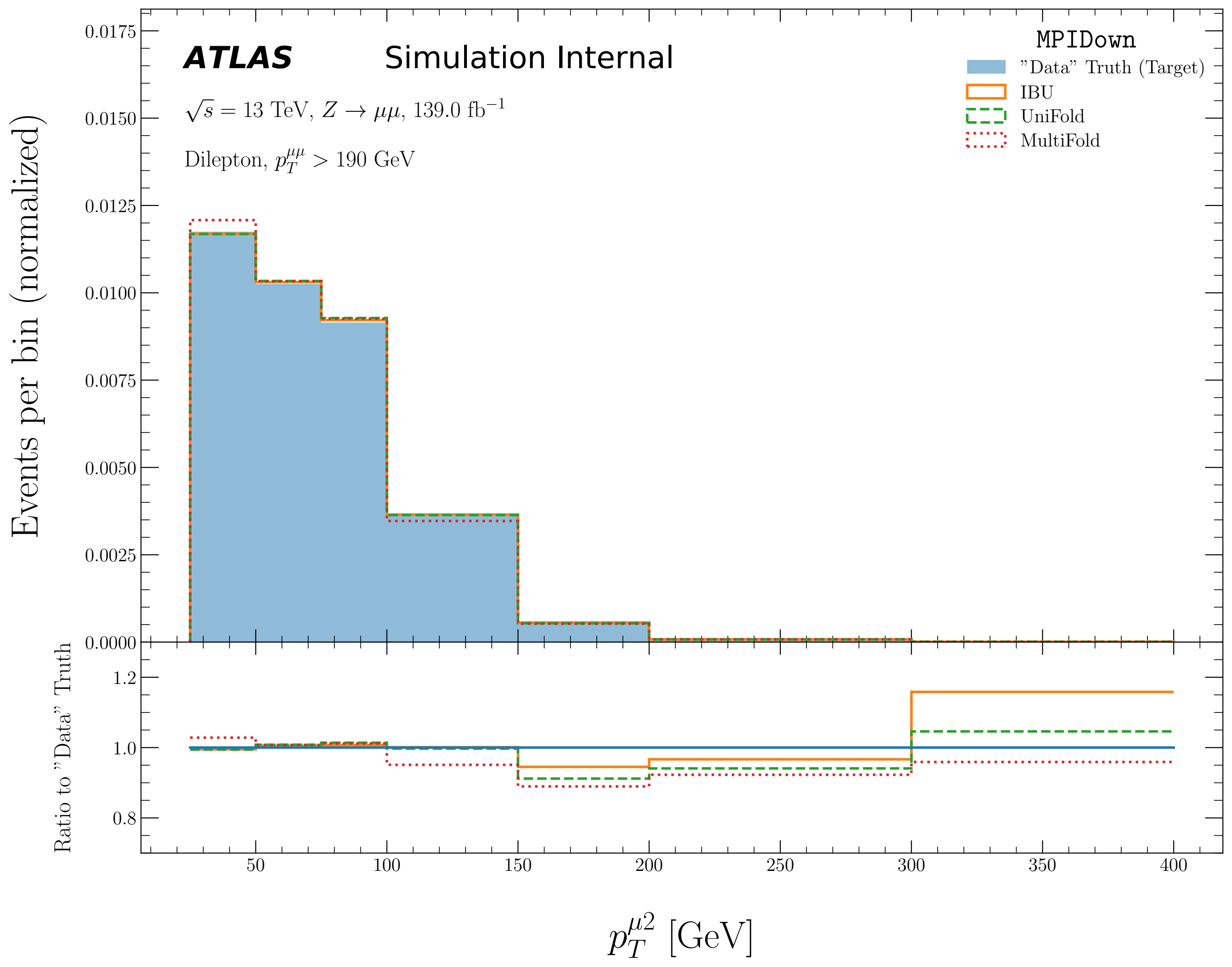


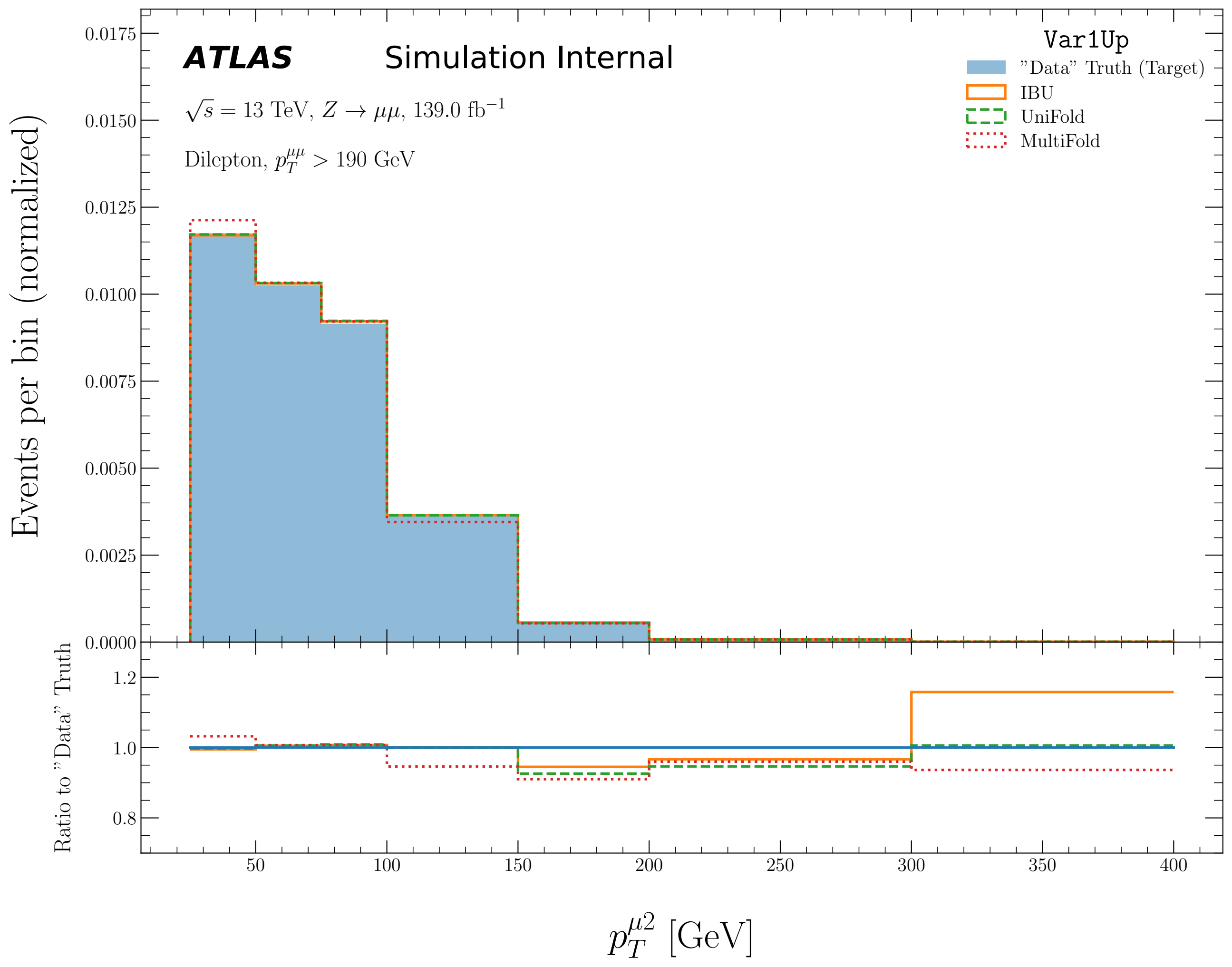


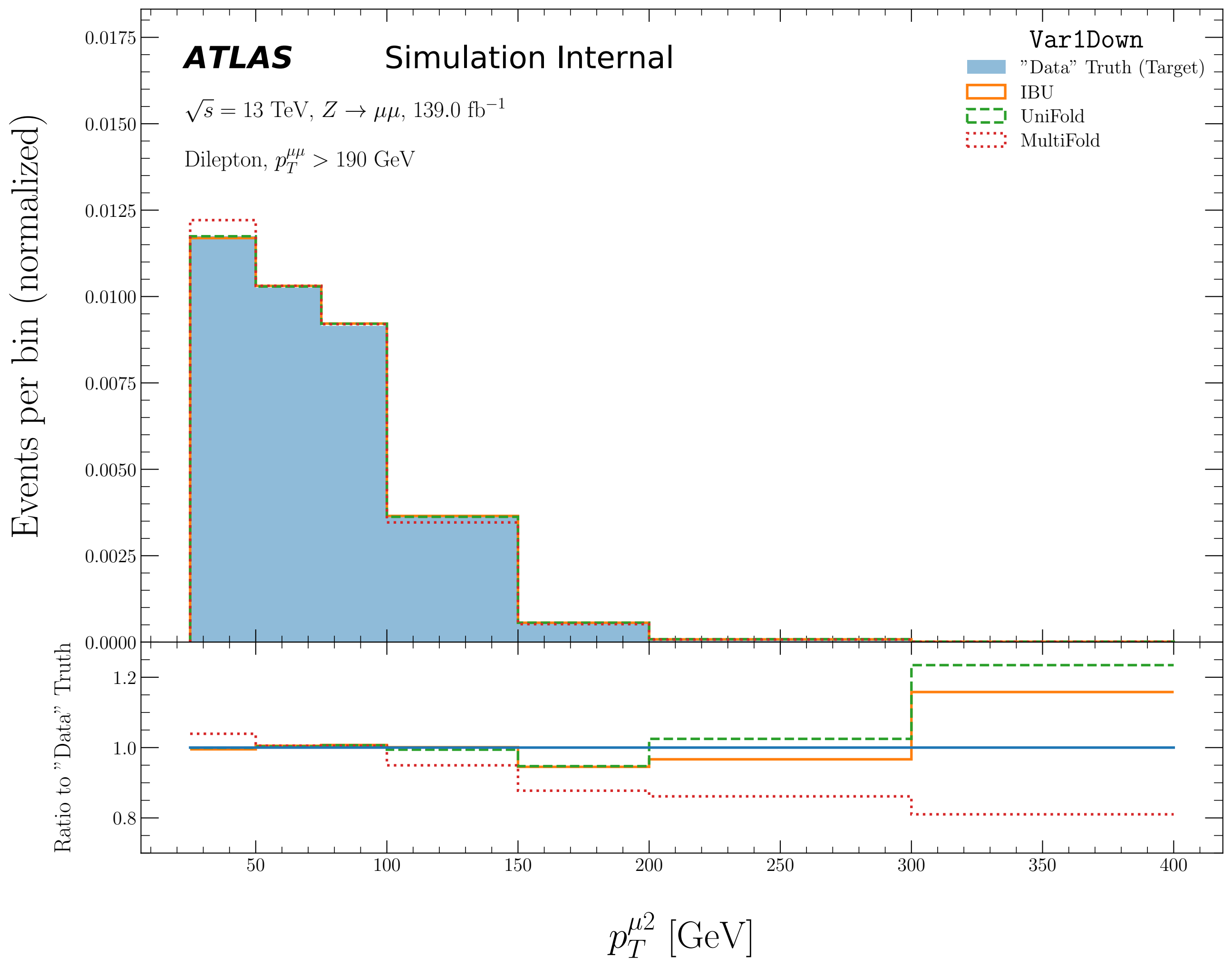


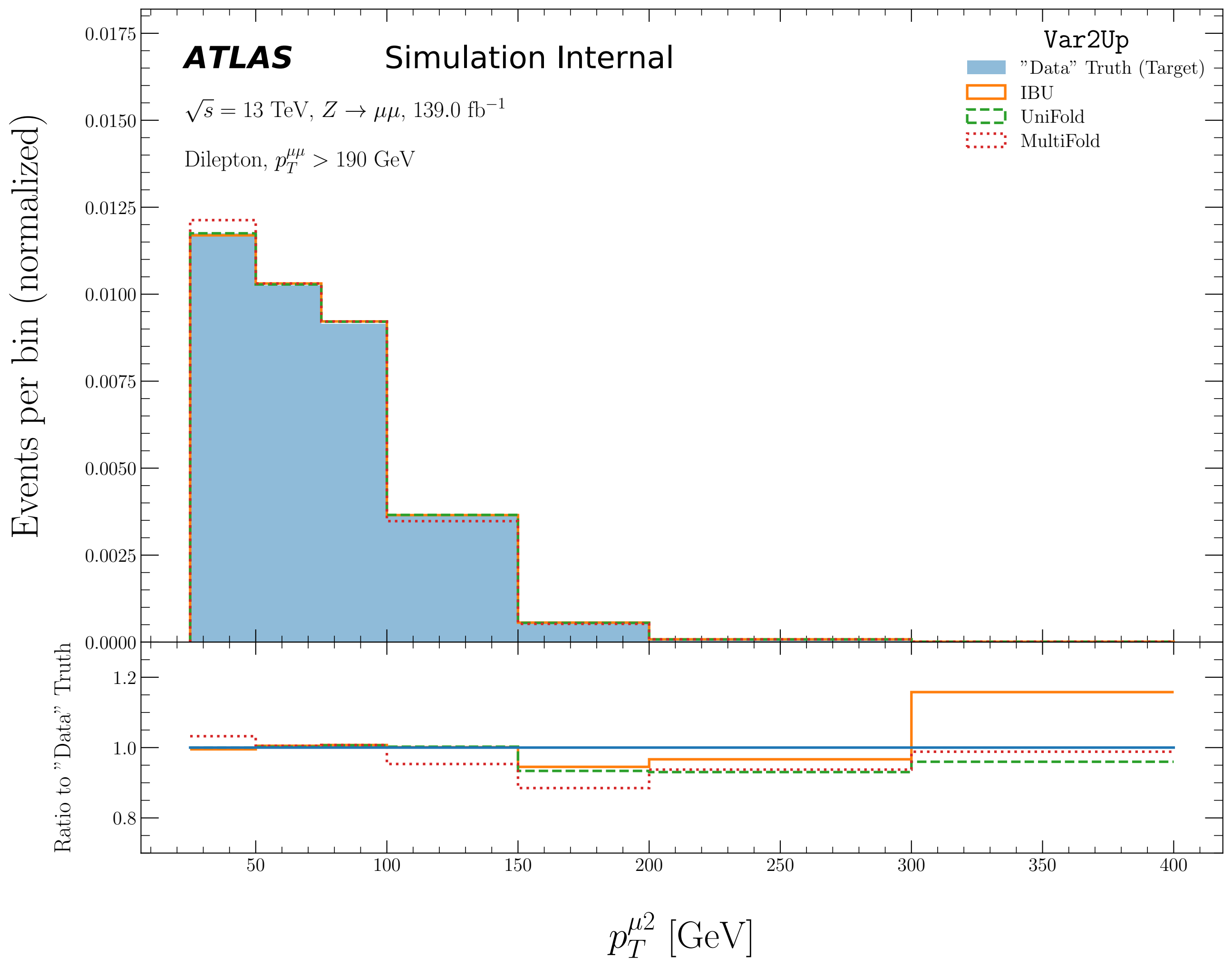


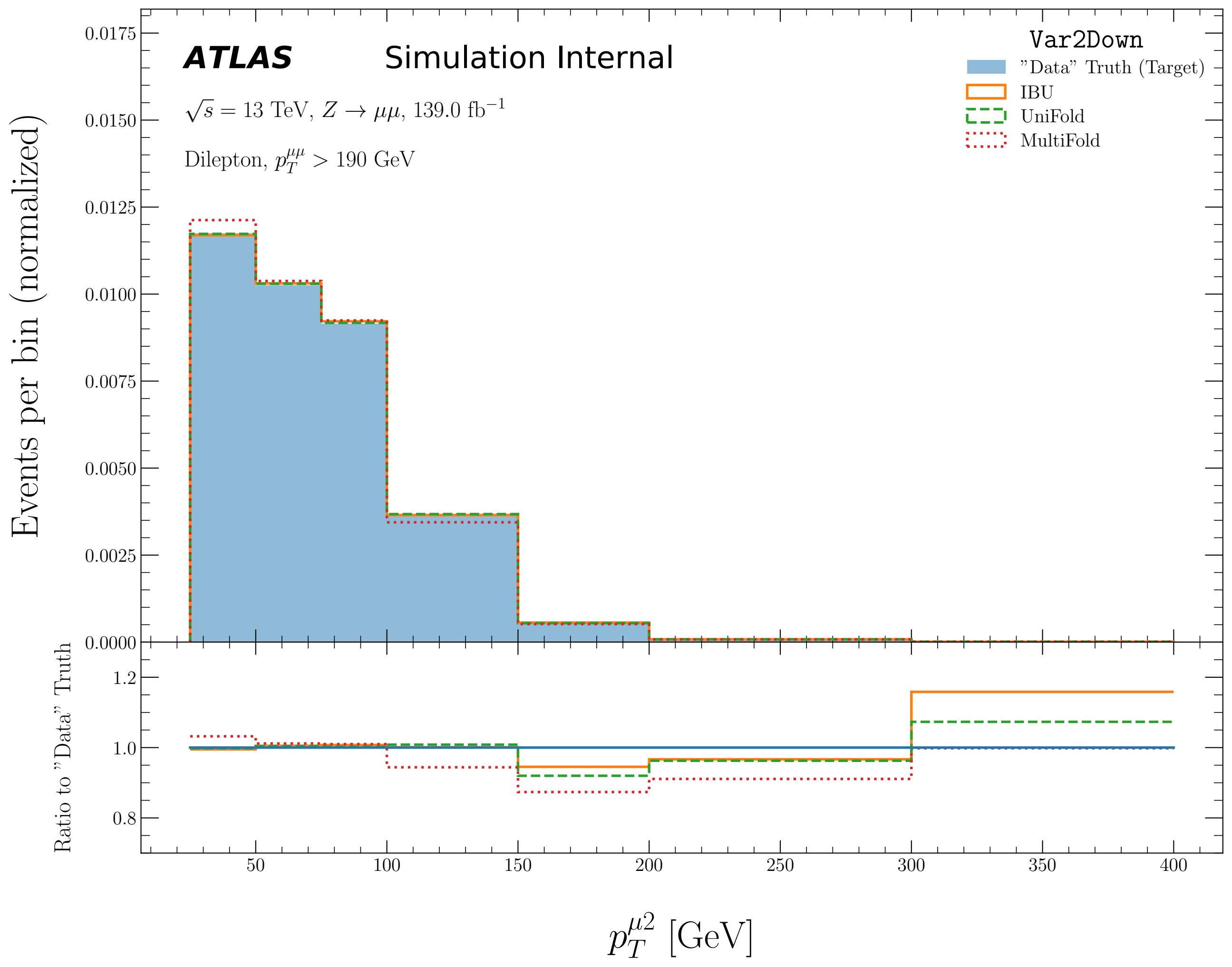


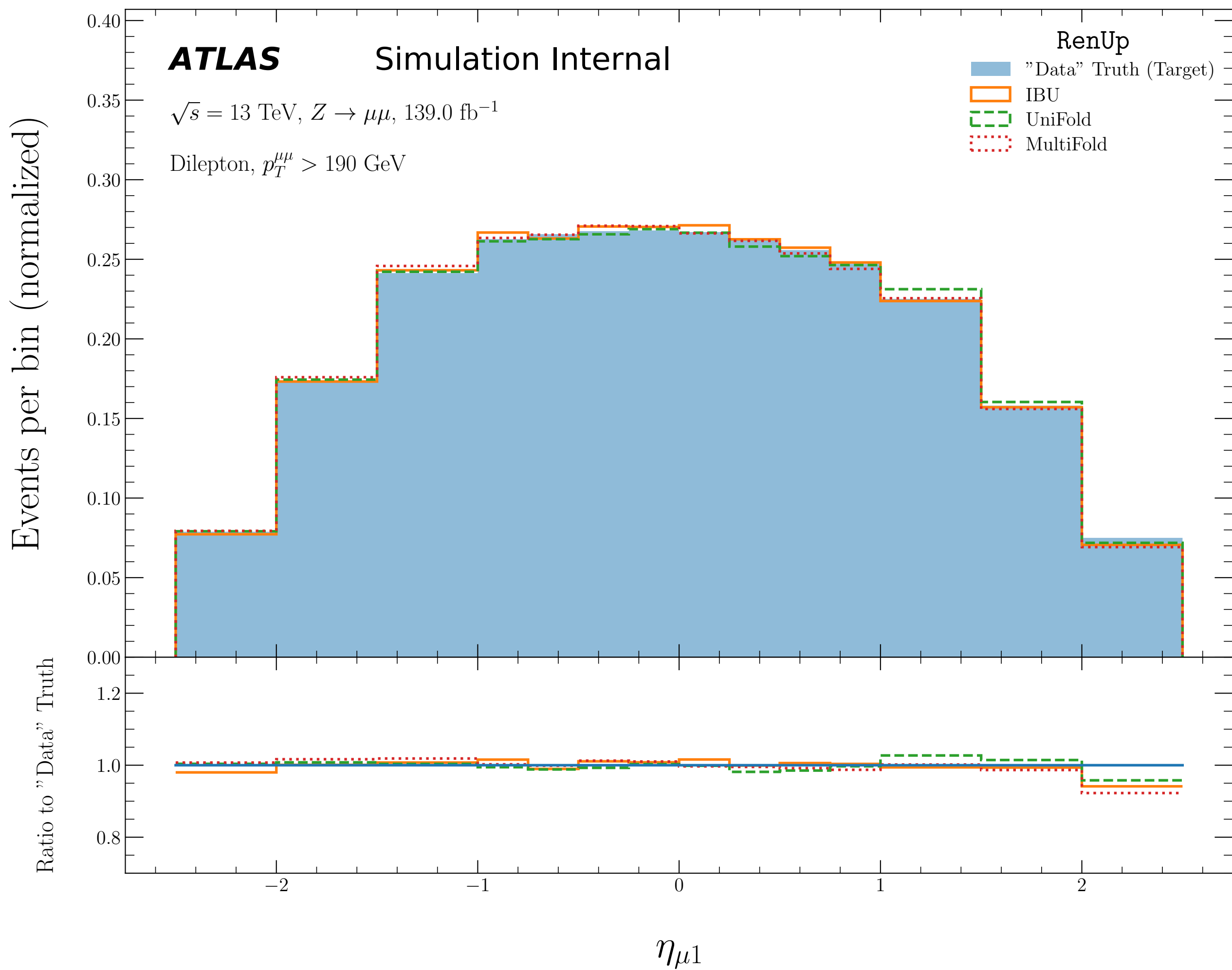


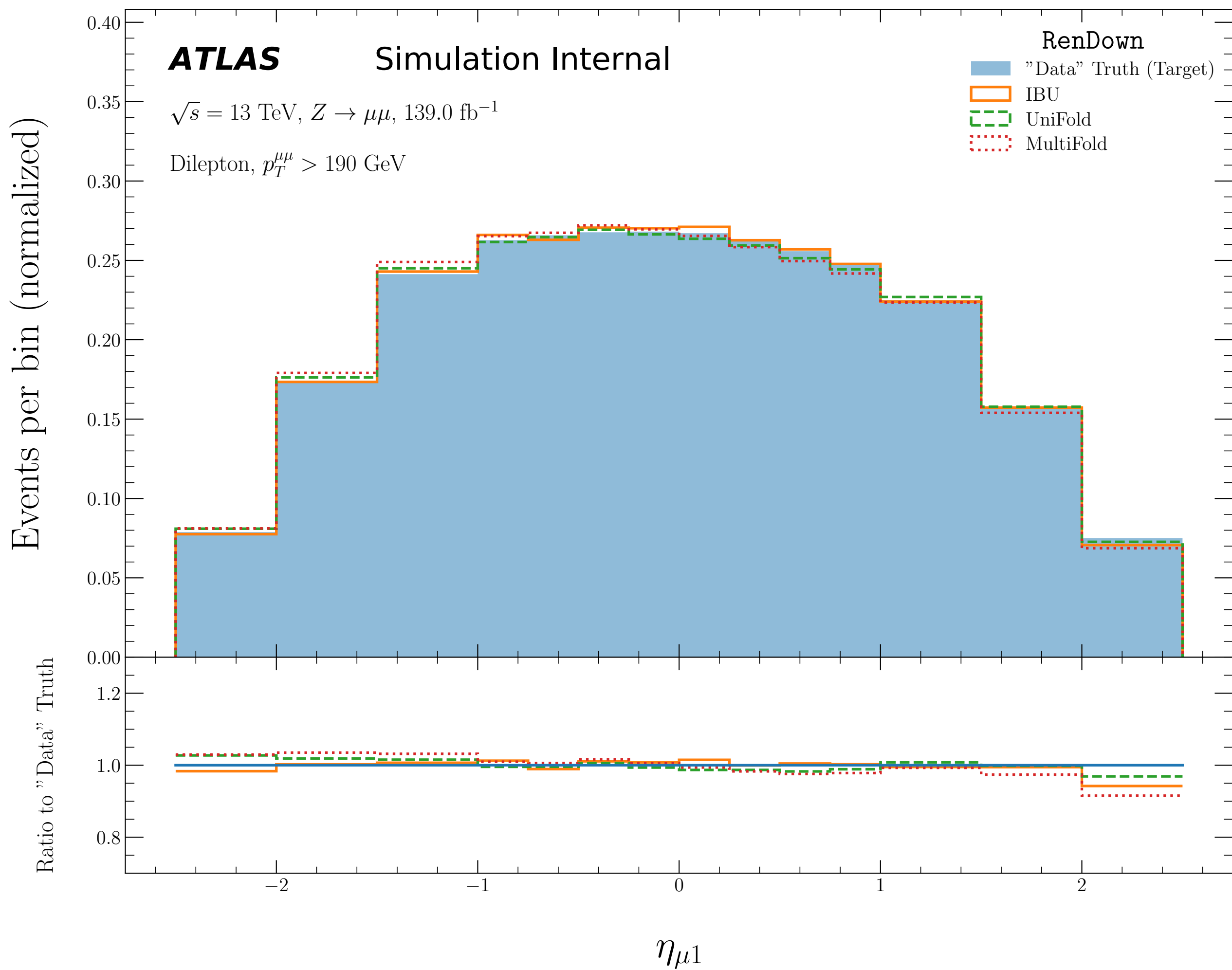


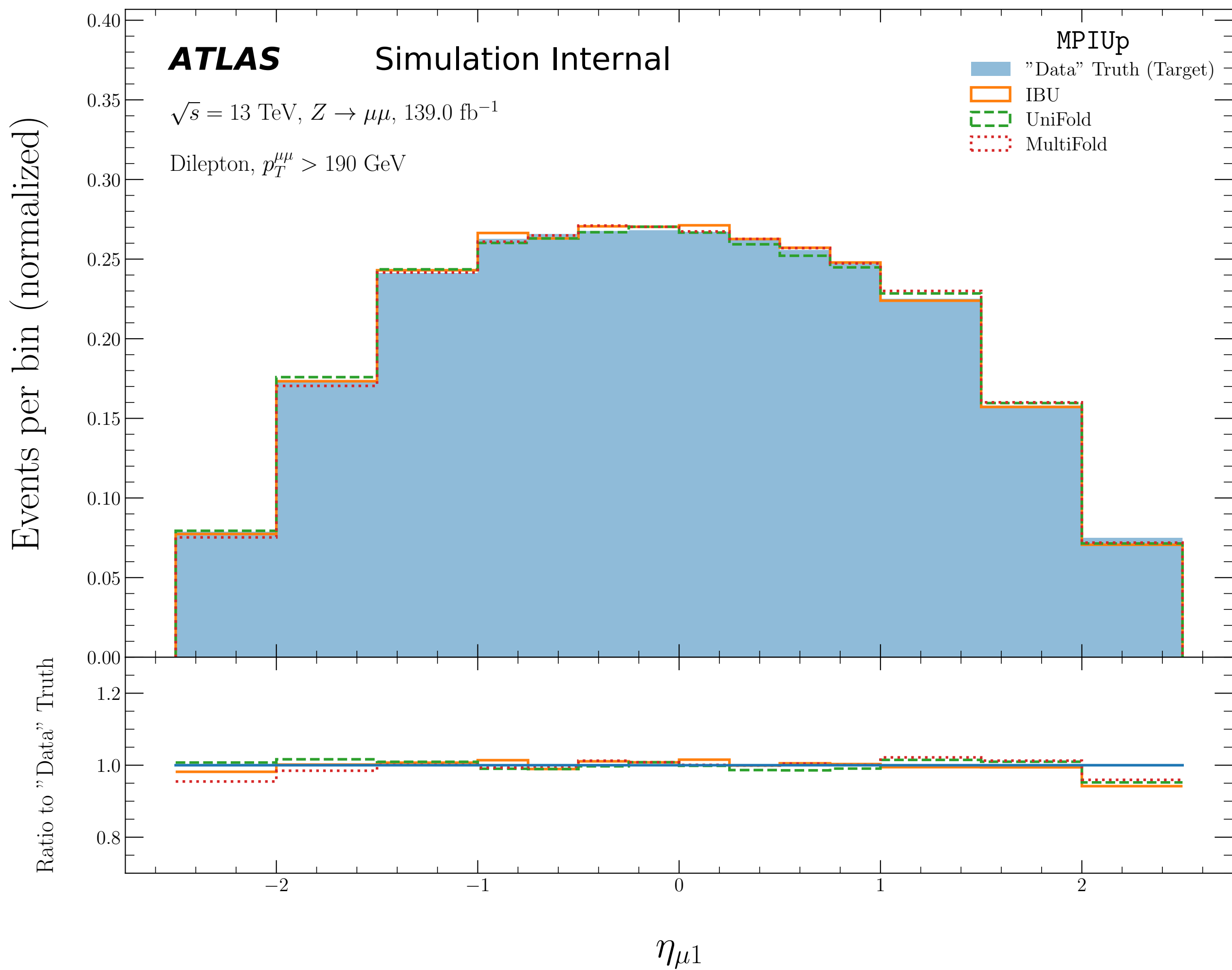


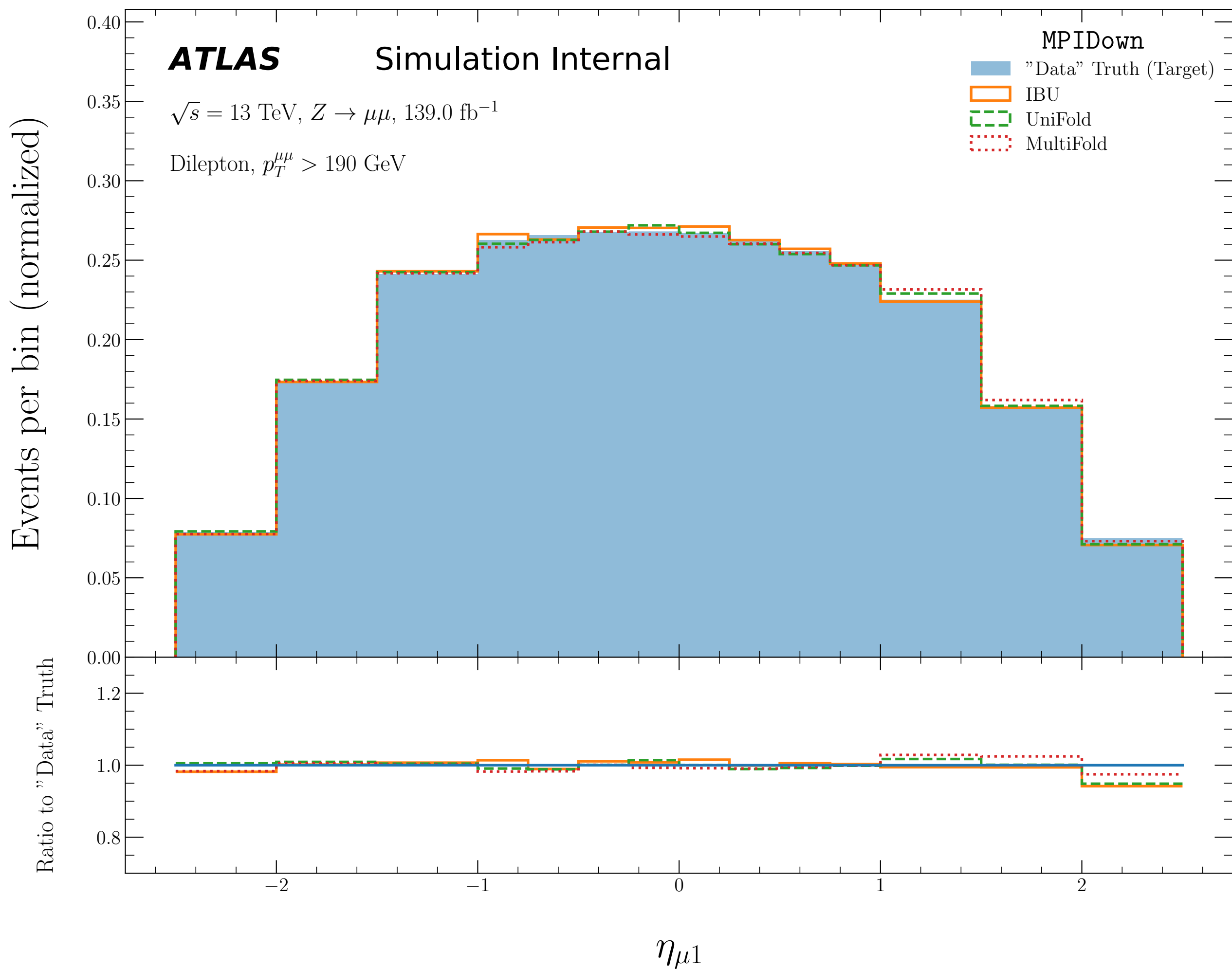


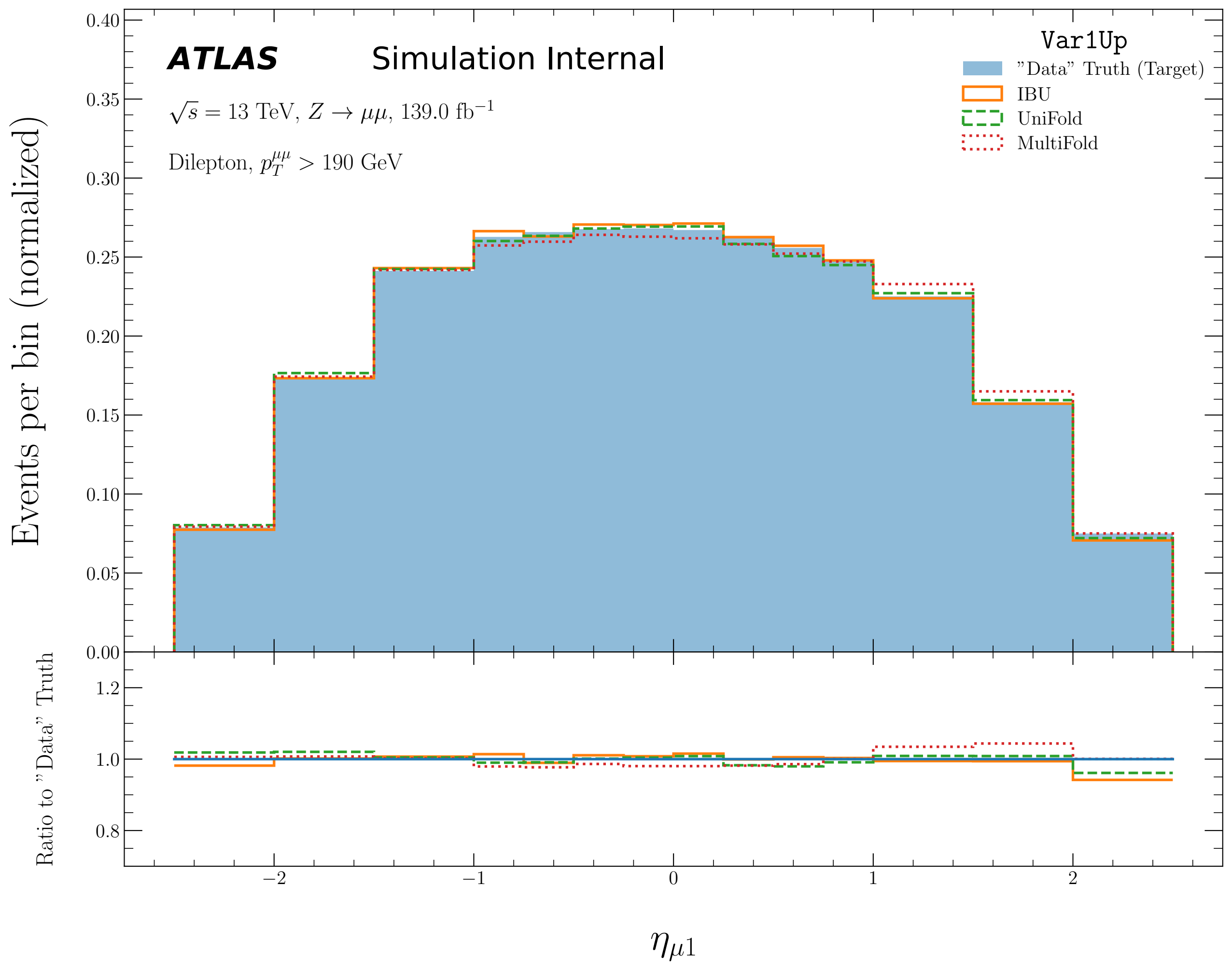


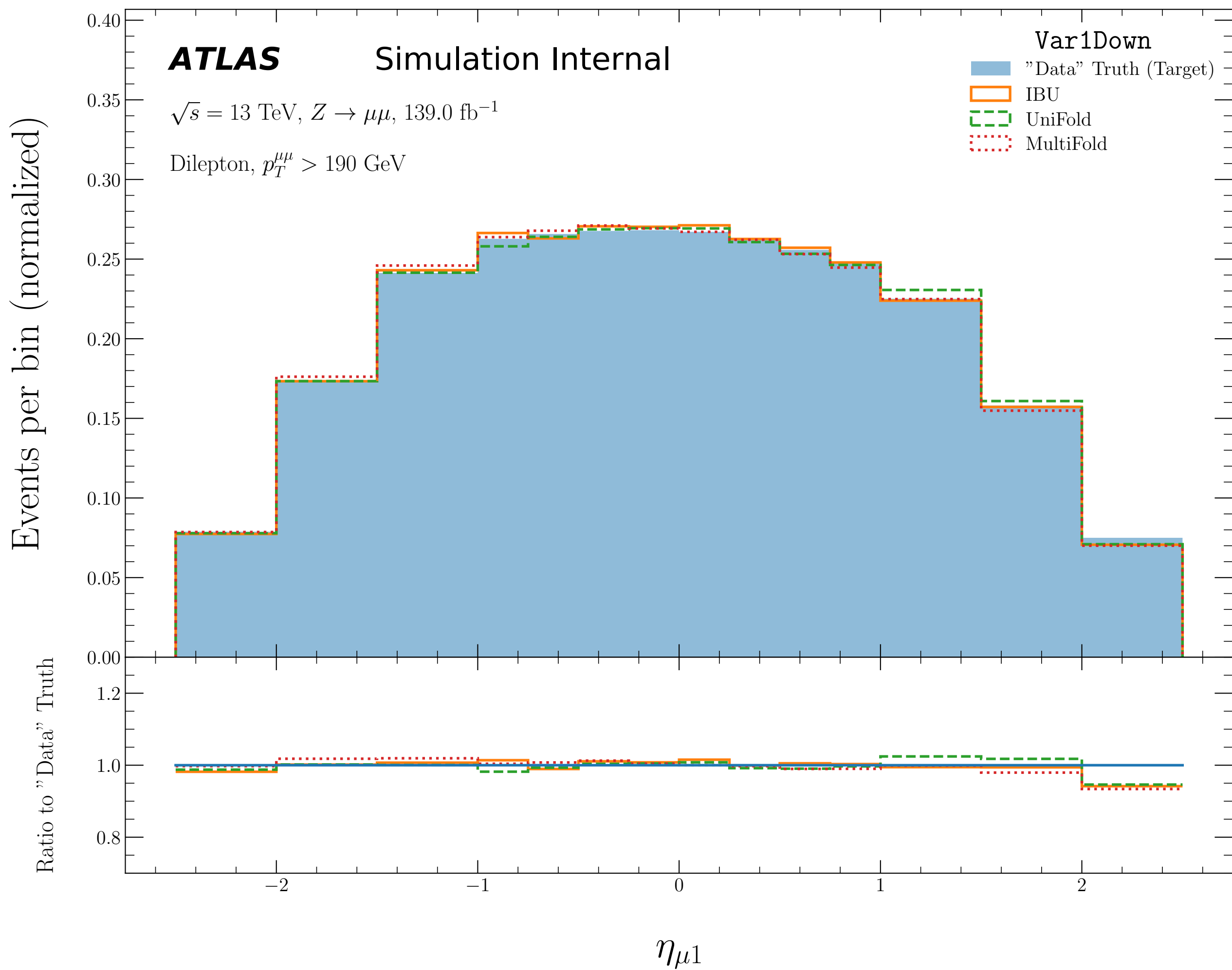


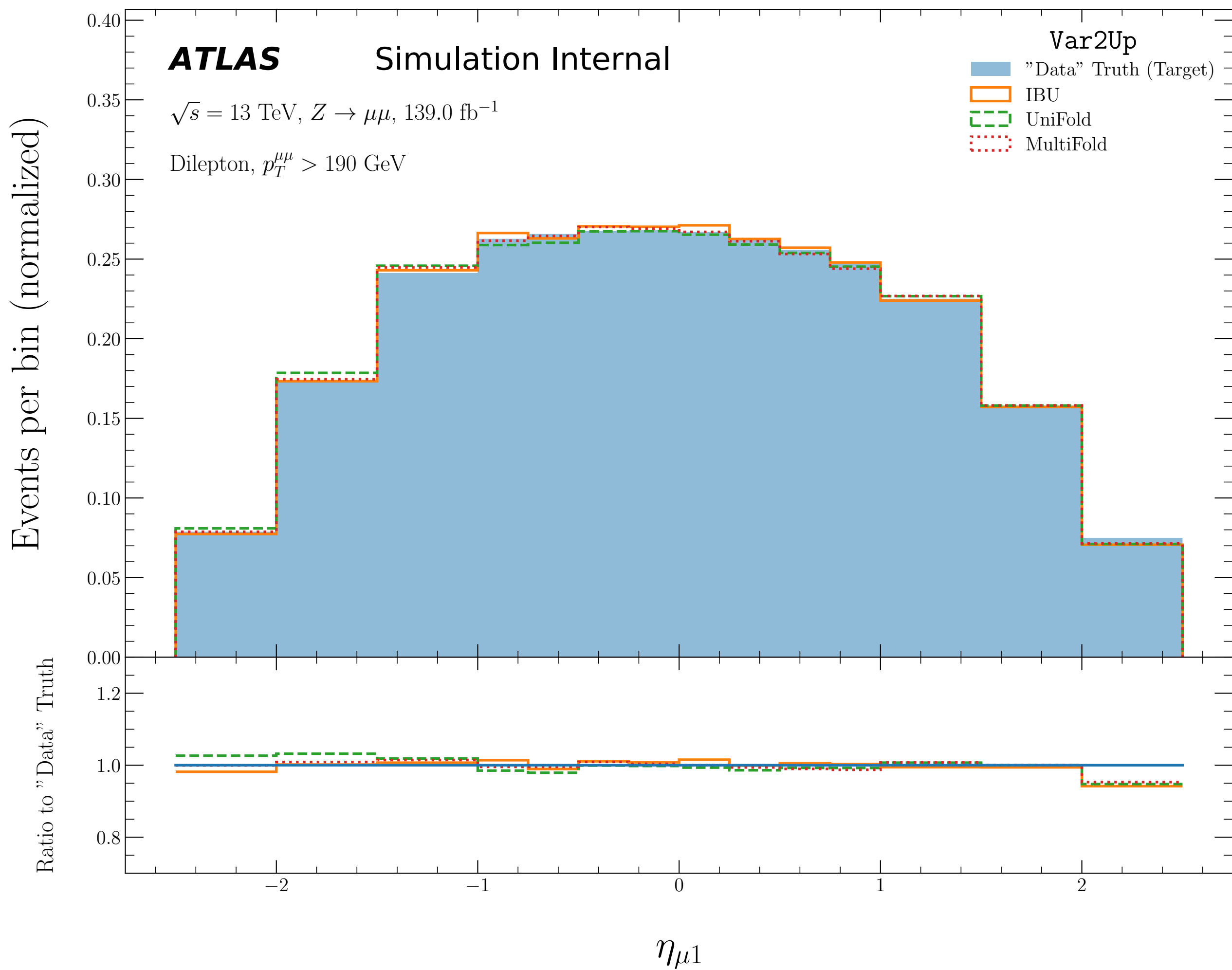


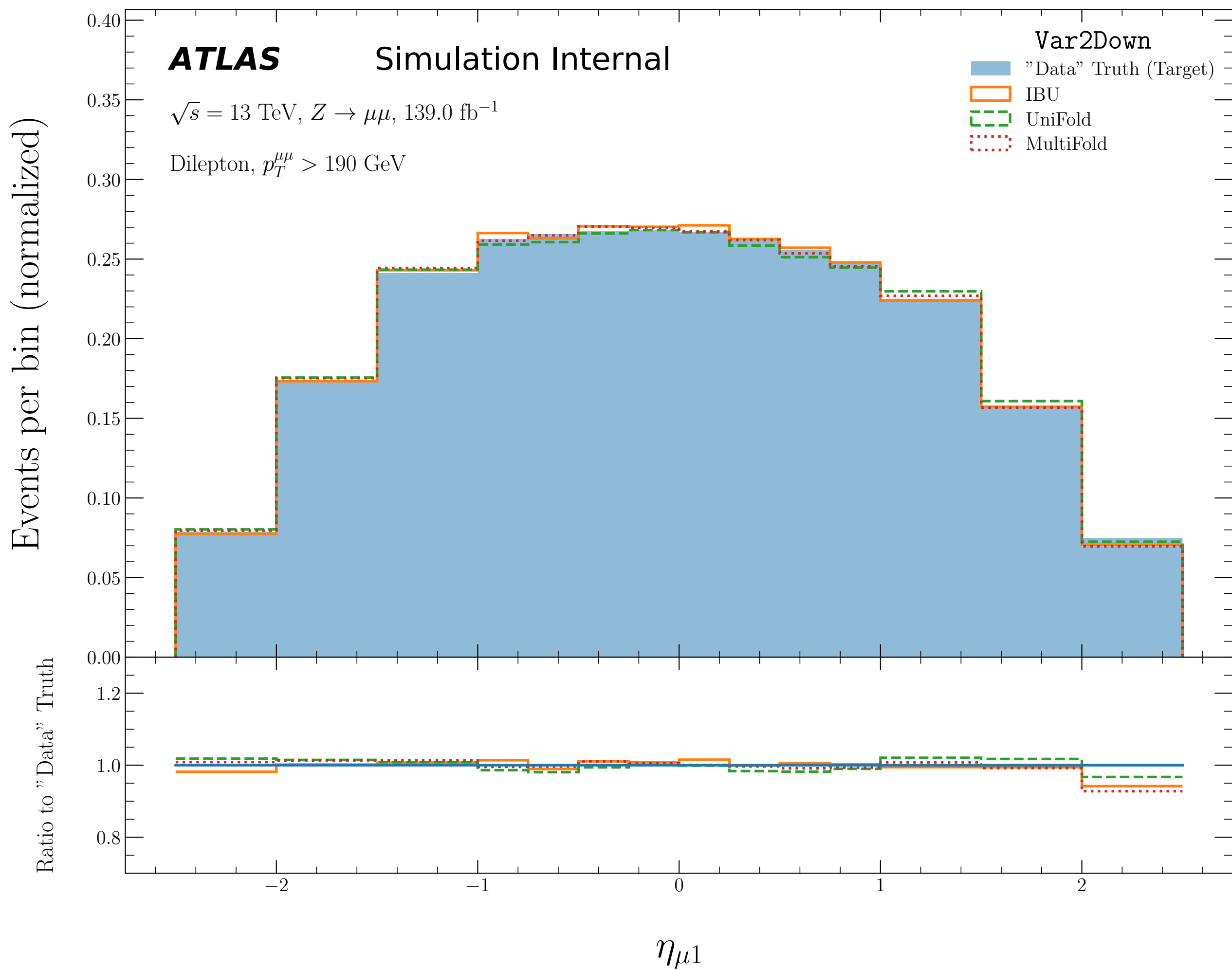


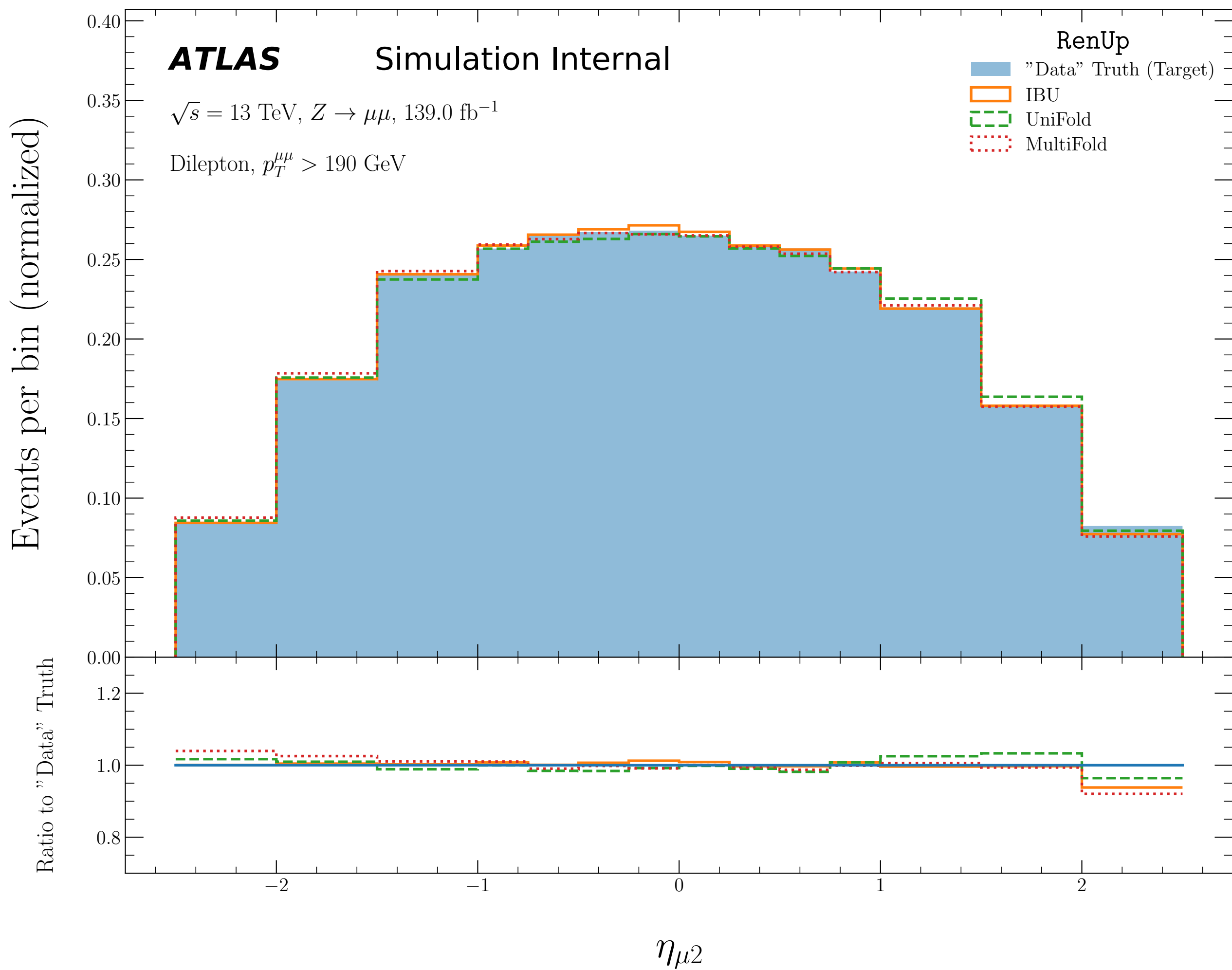


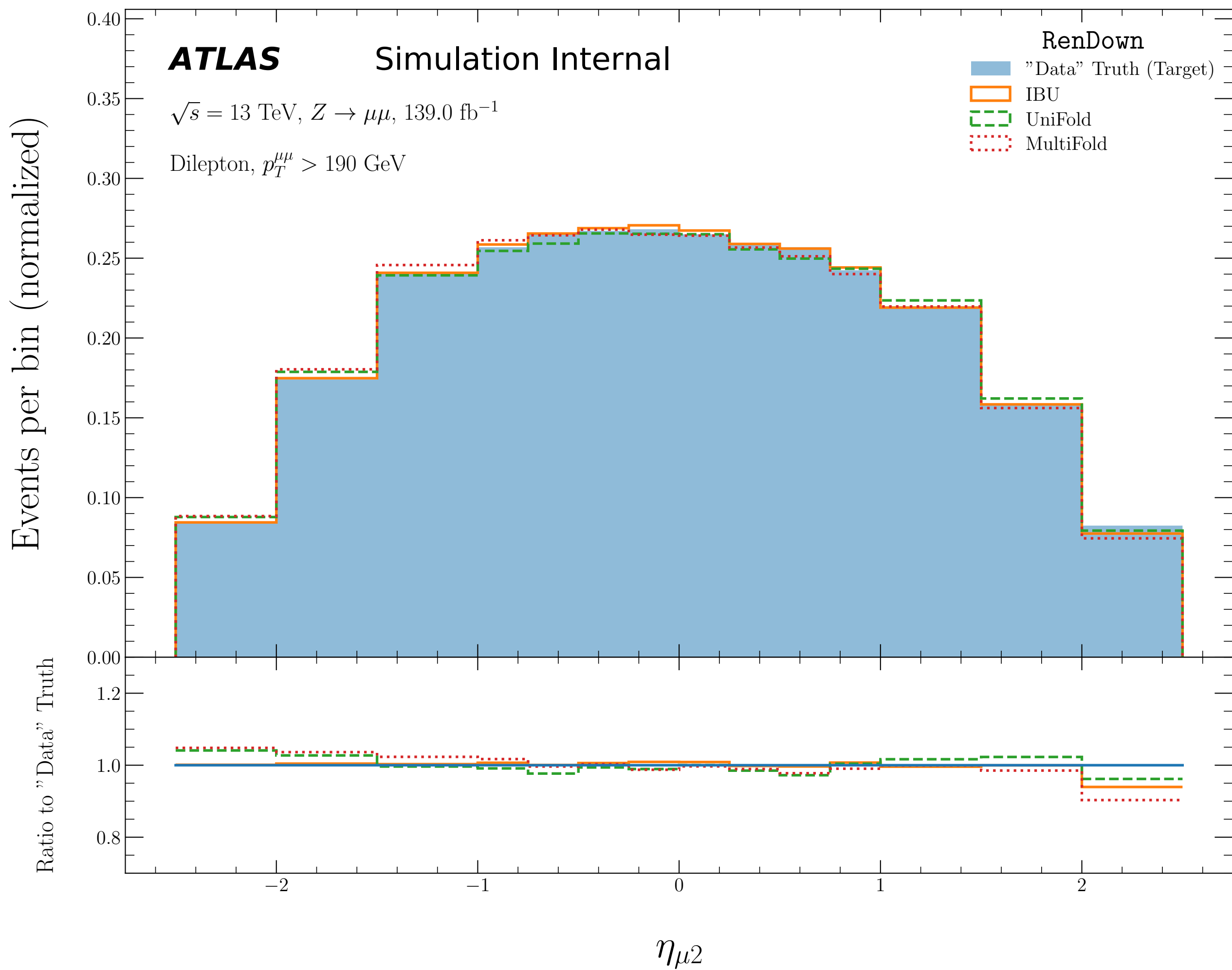


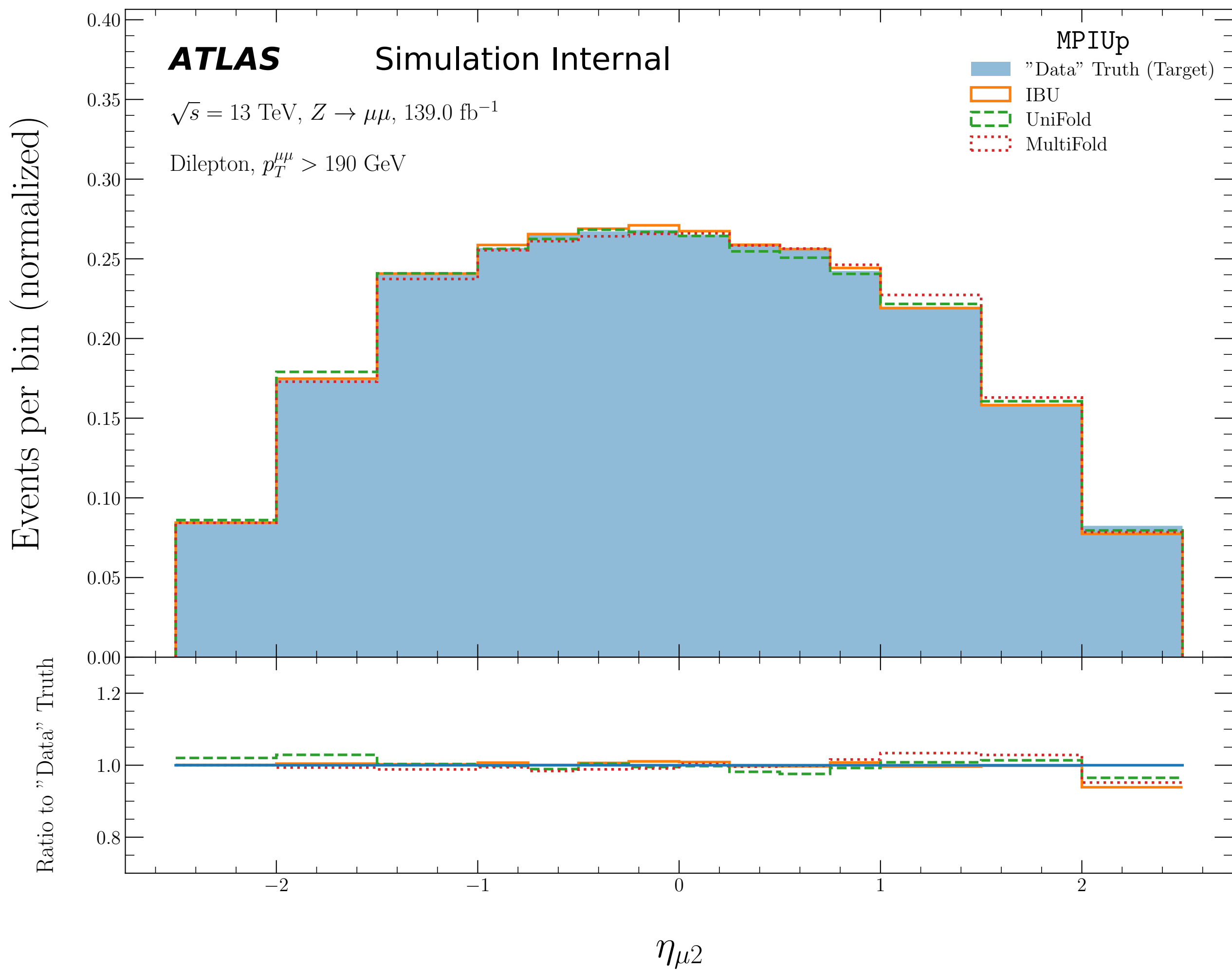


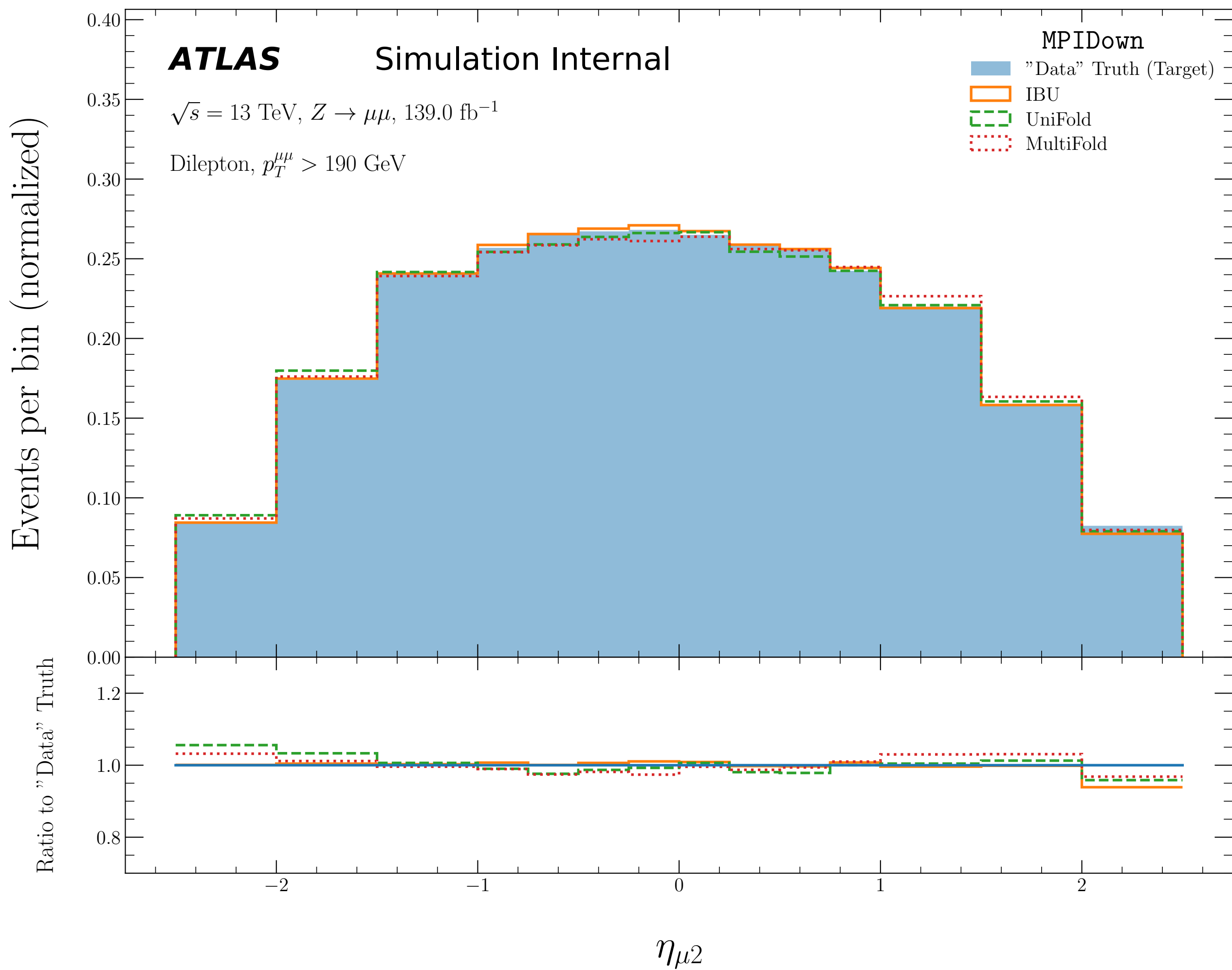


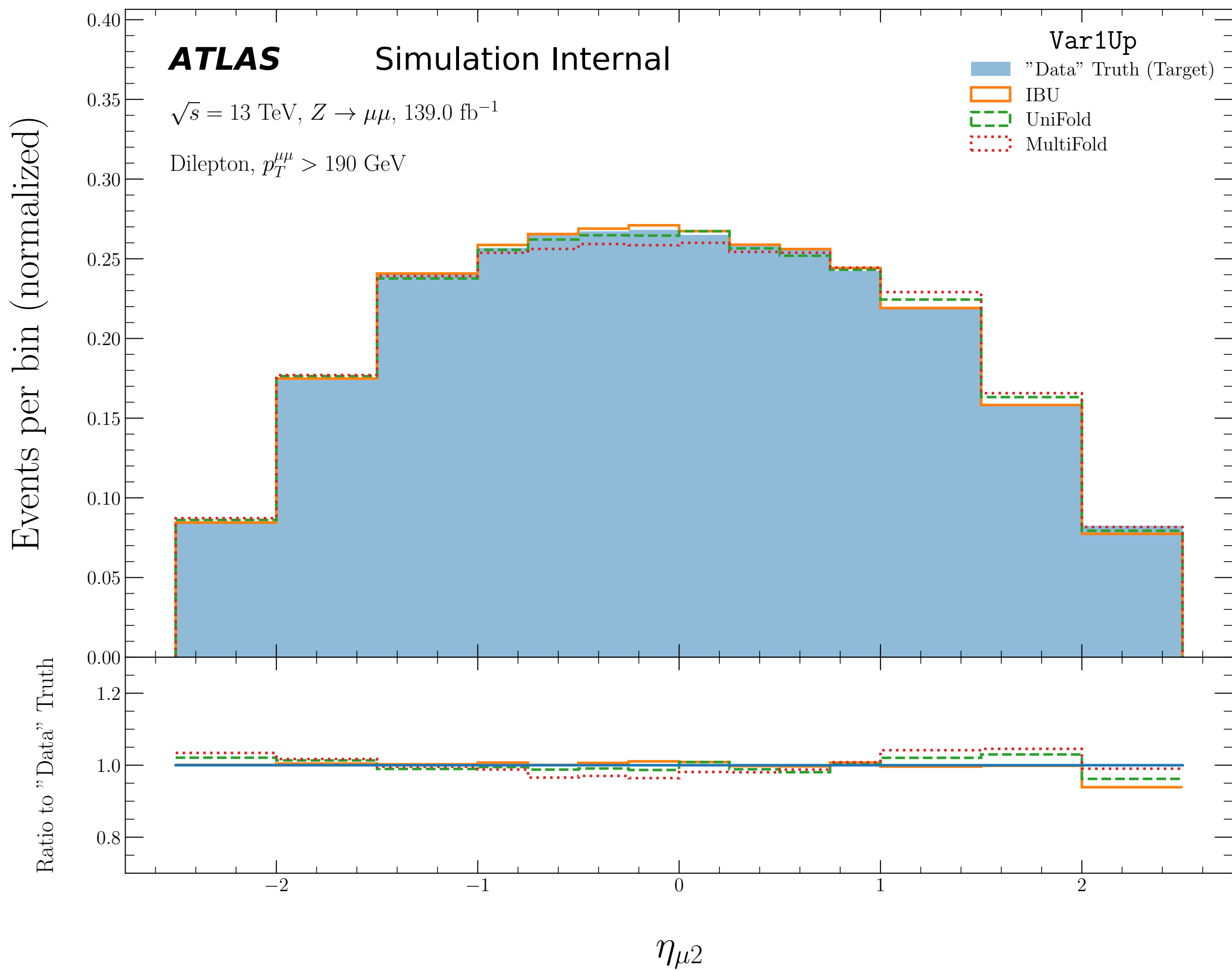


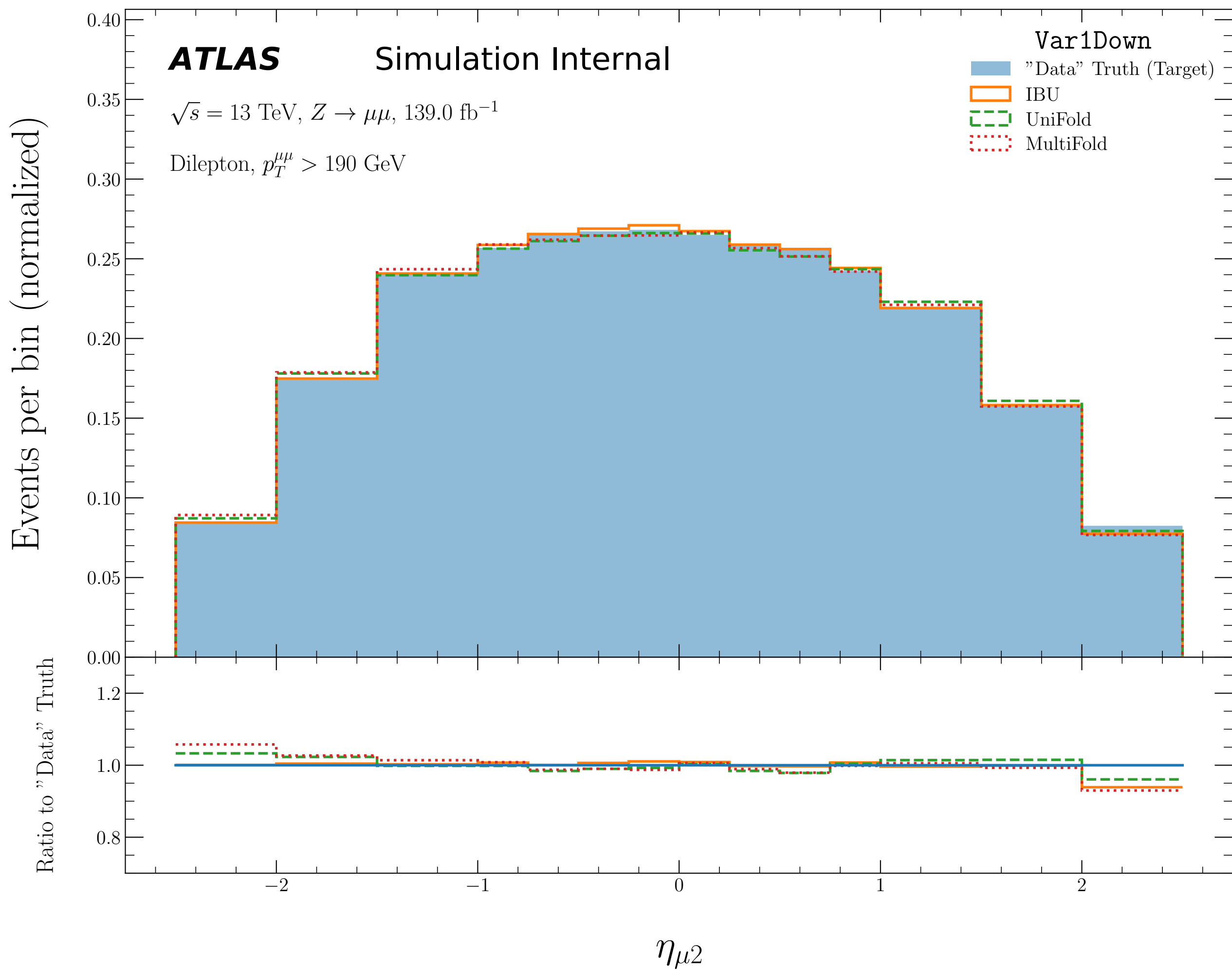


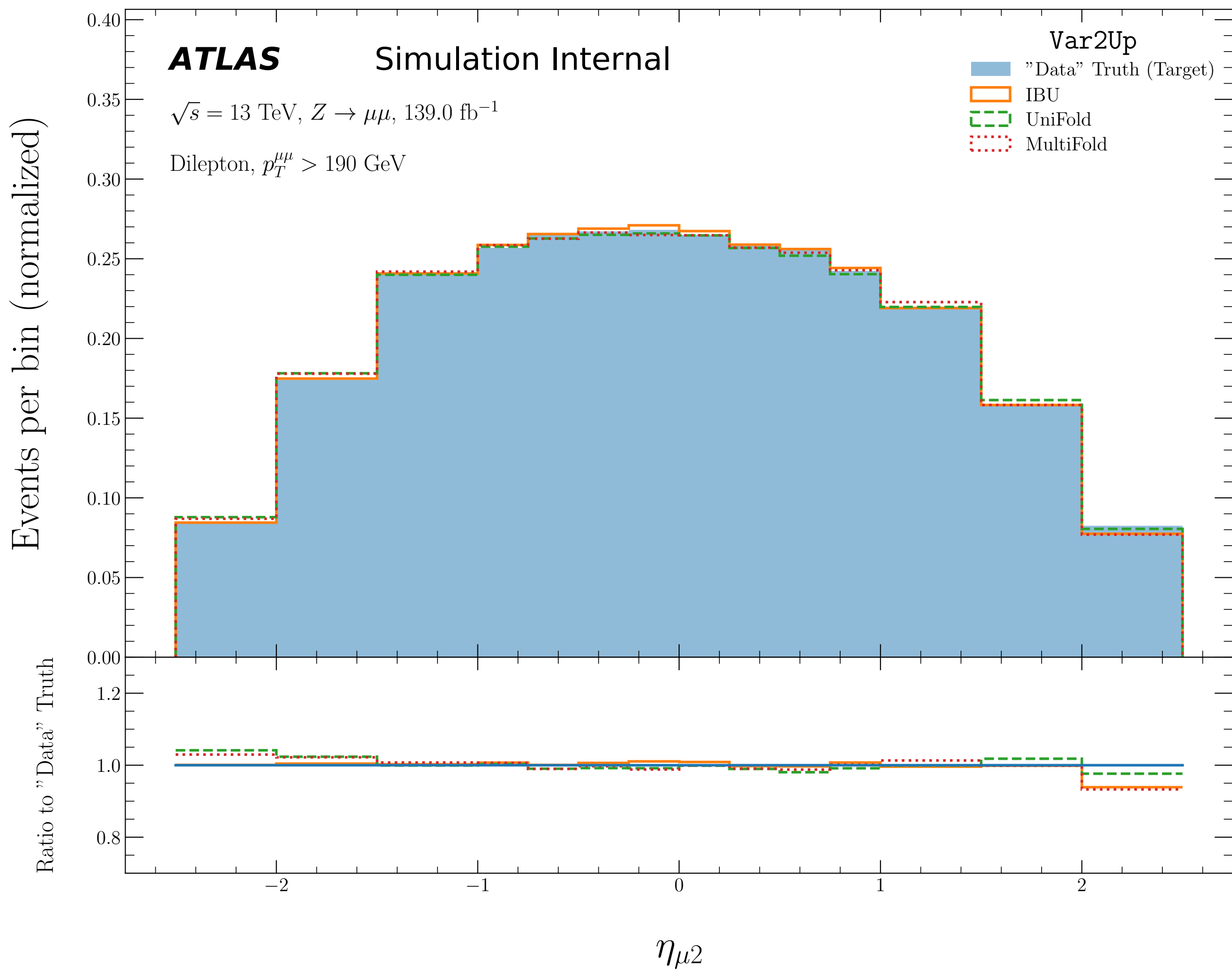


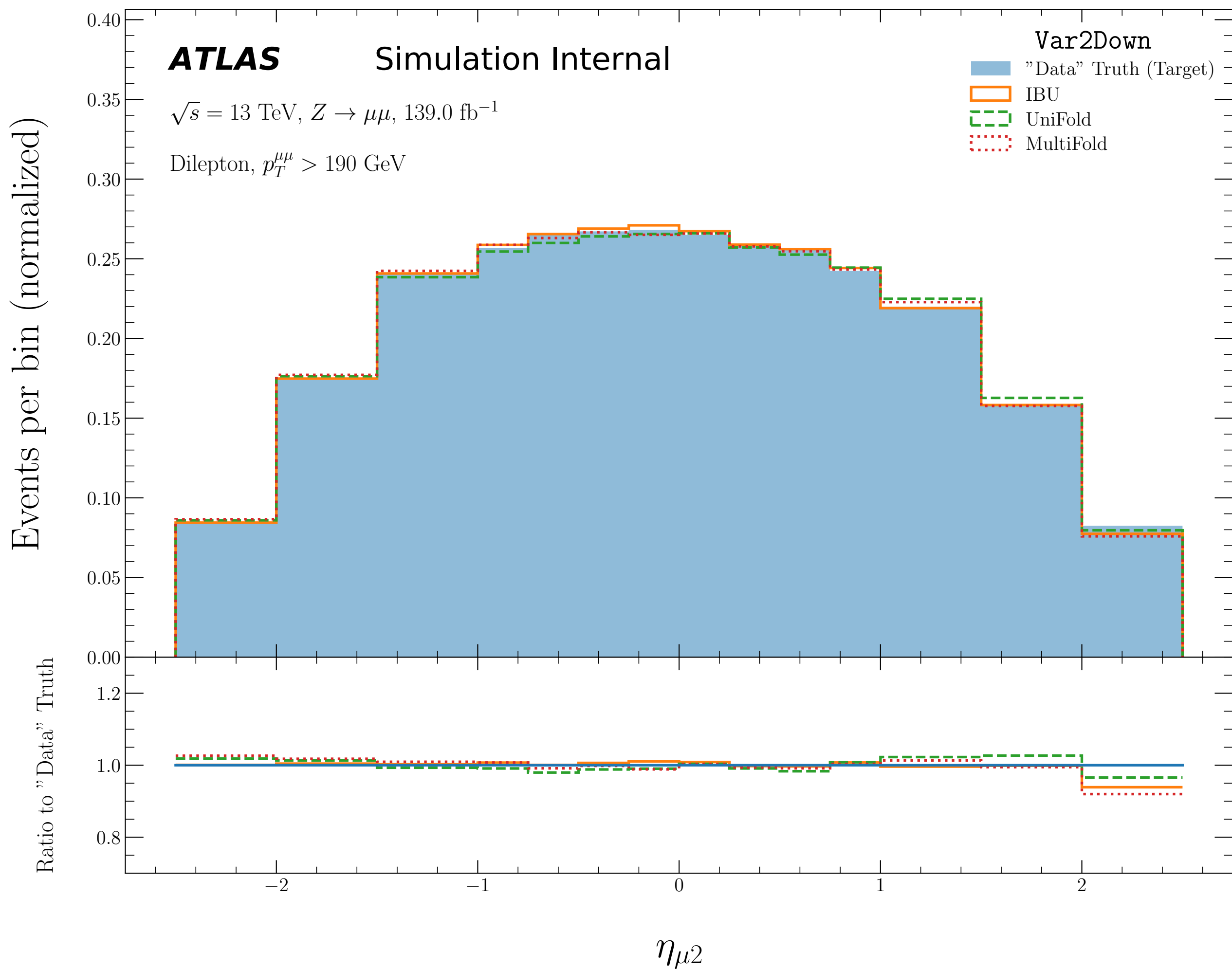


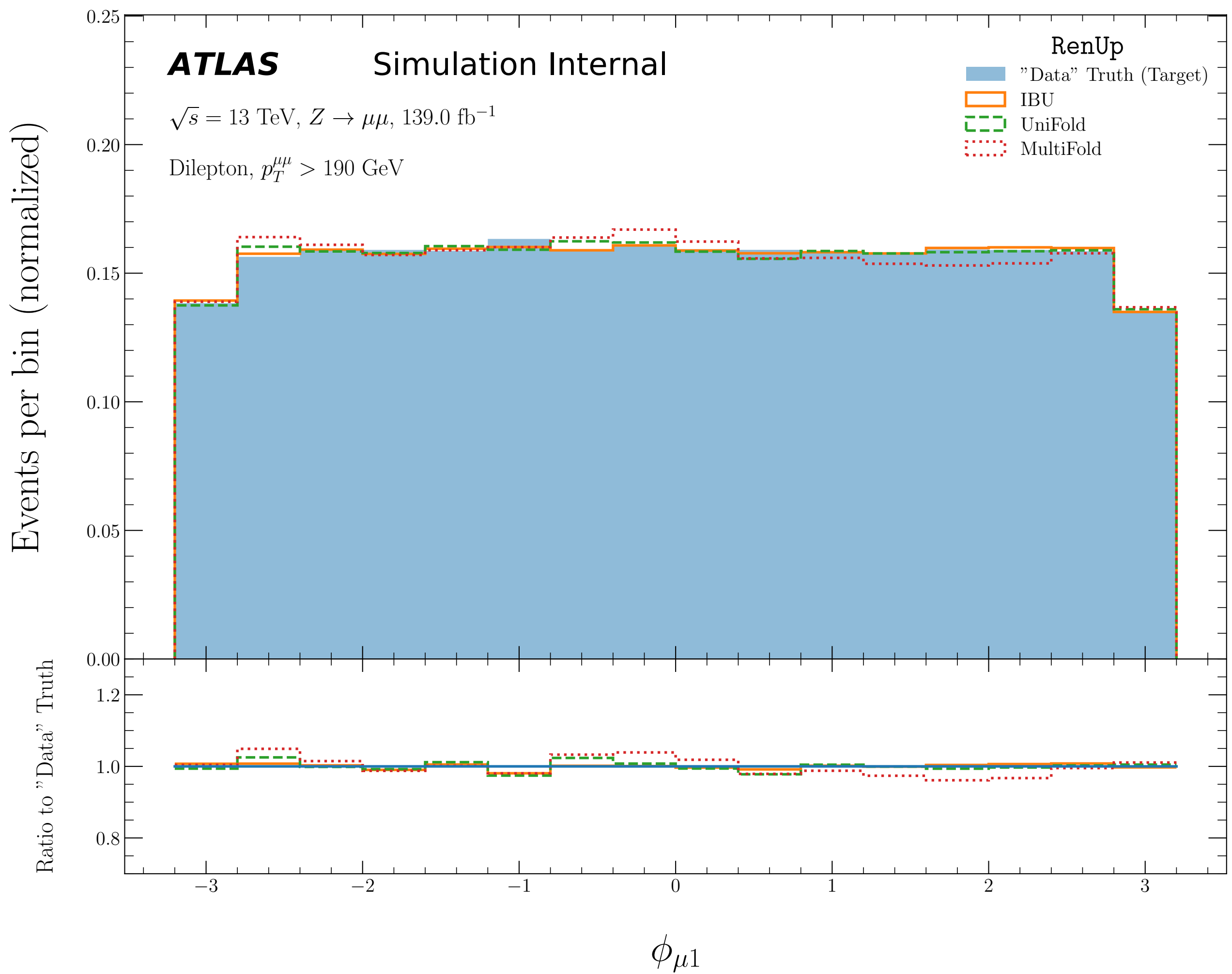


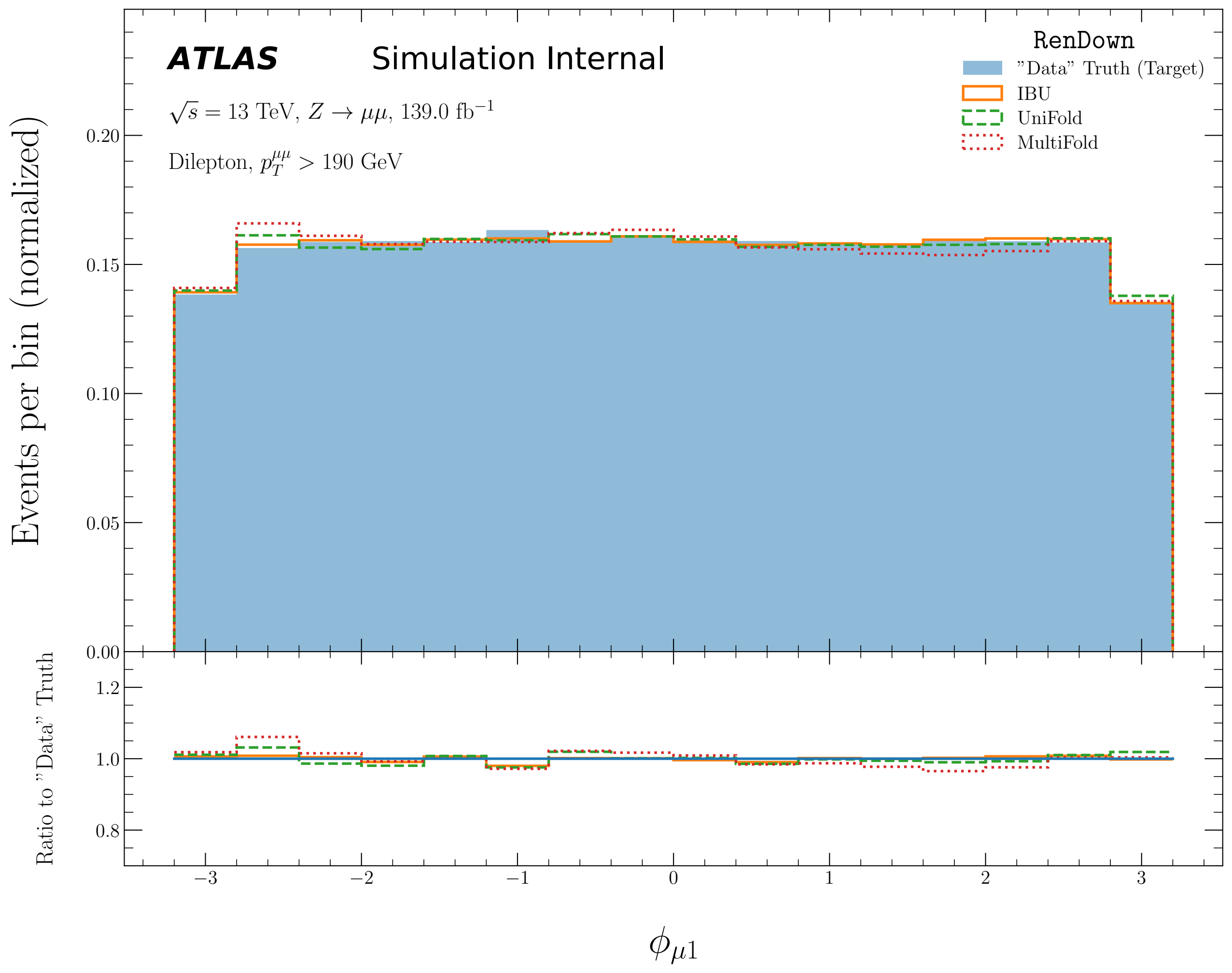












Events per bin (normalized)

ATLAS

Simulation Internal

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

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

MPIUp

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

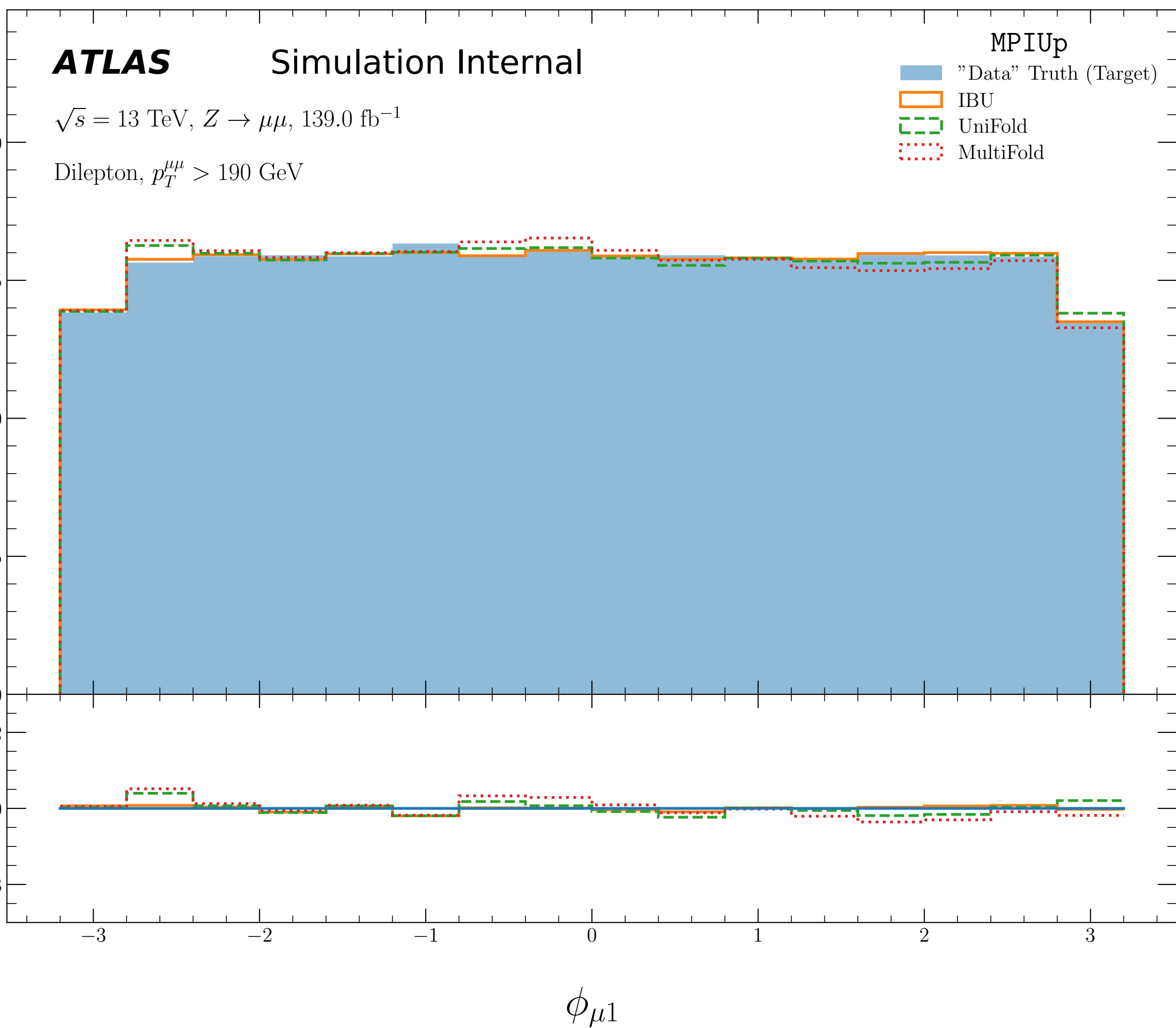
0

1

2

3

$\phi_{\mu 1}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

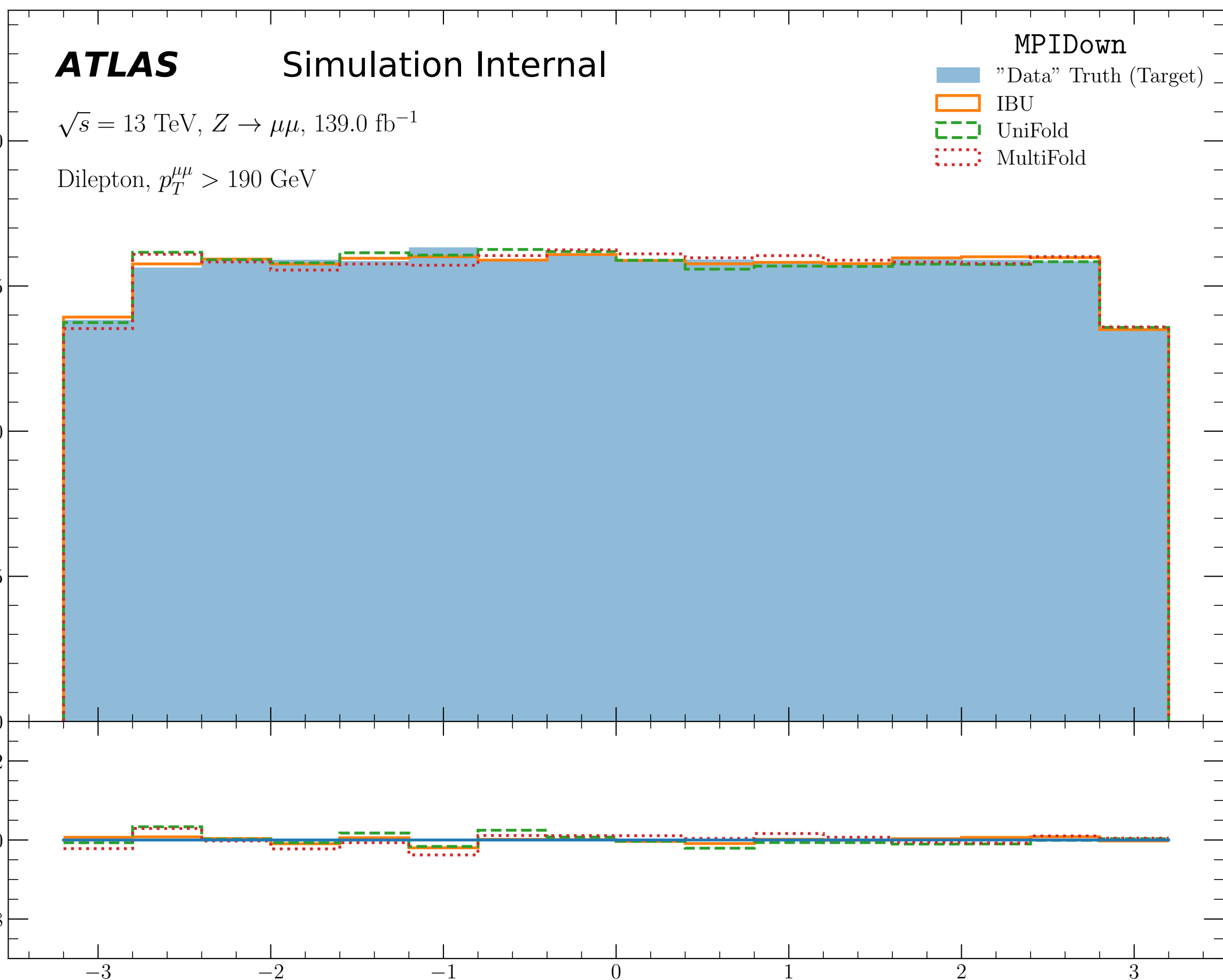
MPIDown

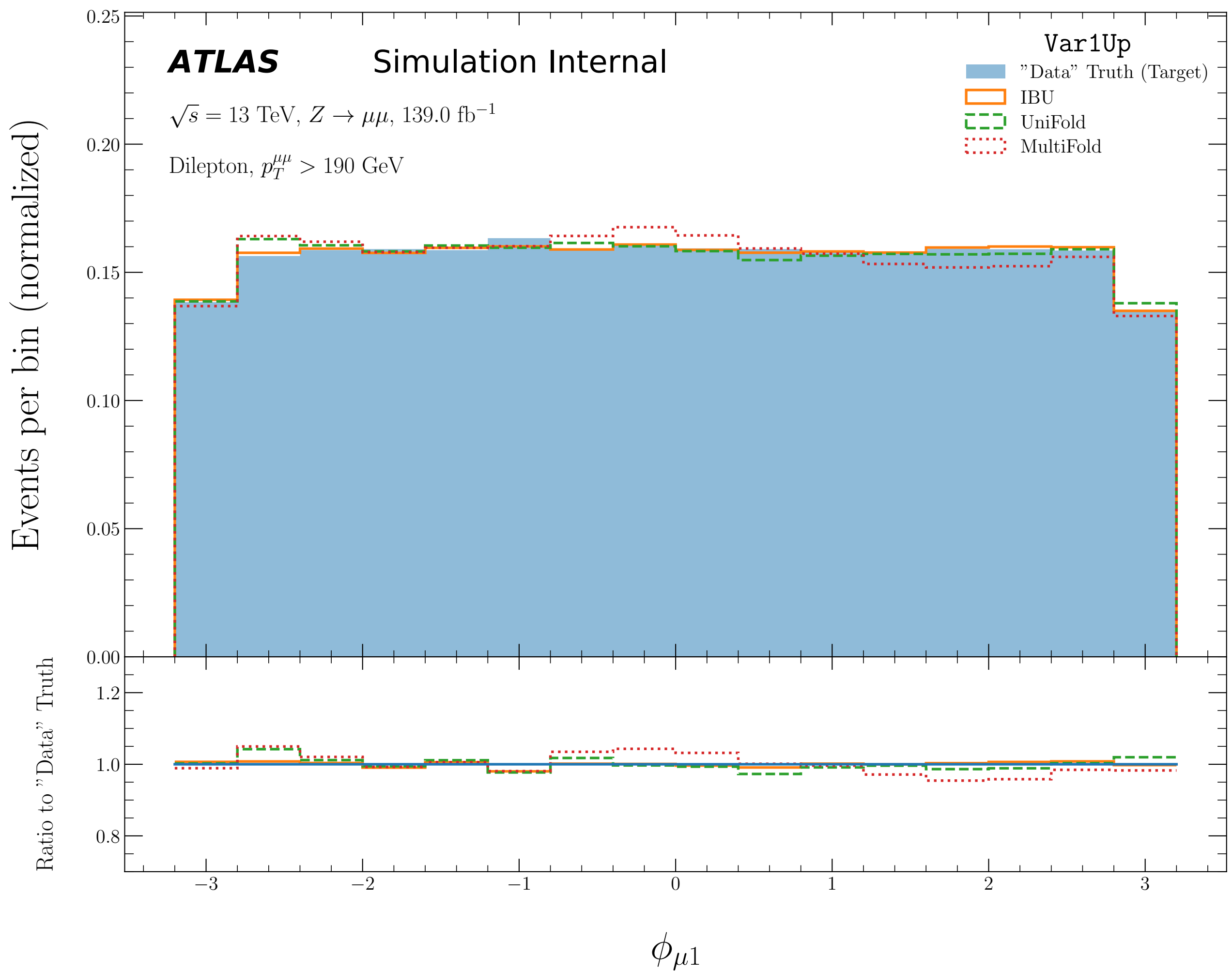
- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20
0.15
0.10
0.05
0.00
1.2
1.0
0.8

Ratio to "Data" Truth

$\phi_{\mu 1}$





Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var1Down

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

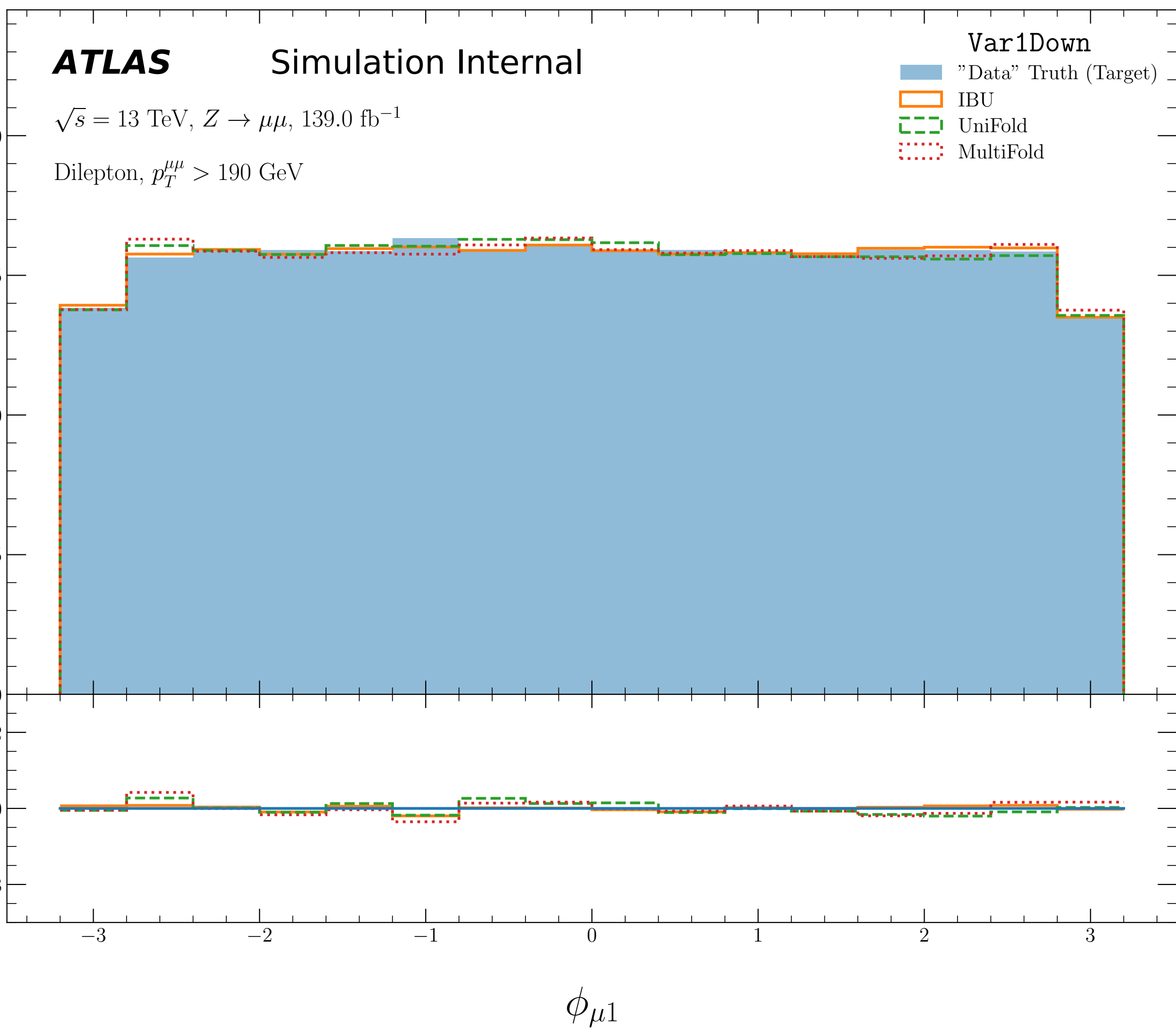
0

1

2

3

$\phi_{\mu 1}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var2Up

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

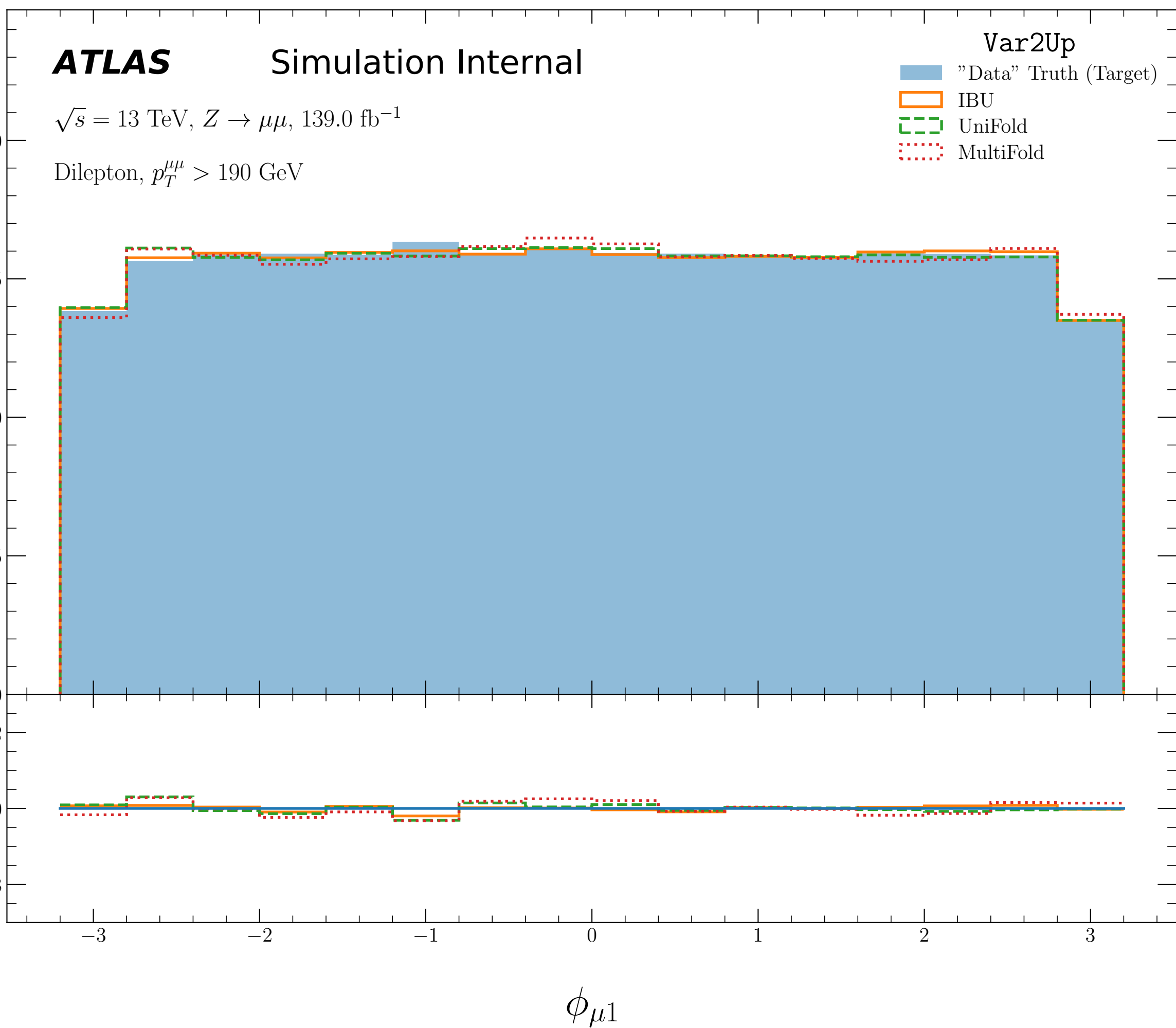
0

1

2

3

$\phi_{\mu 1}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var2Down

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

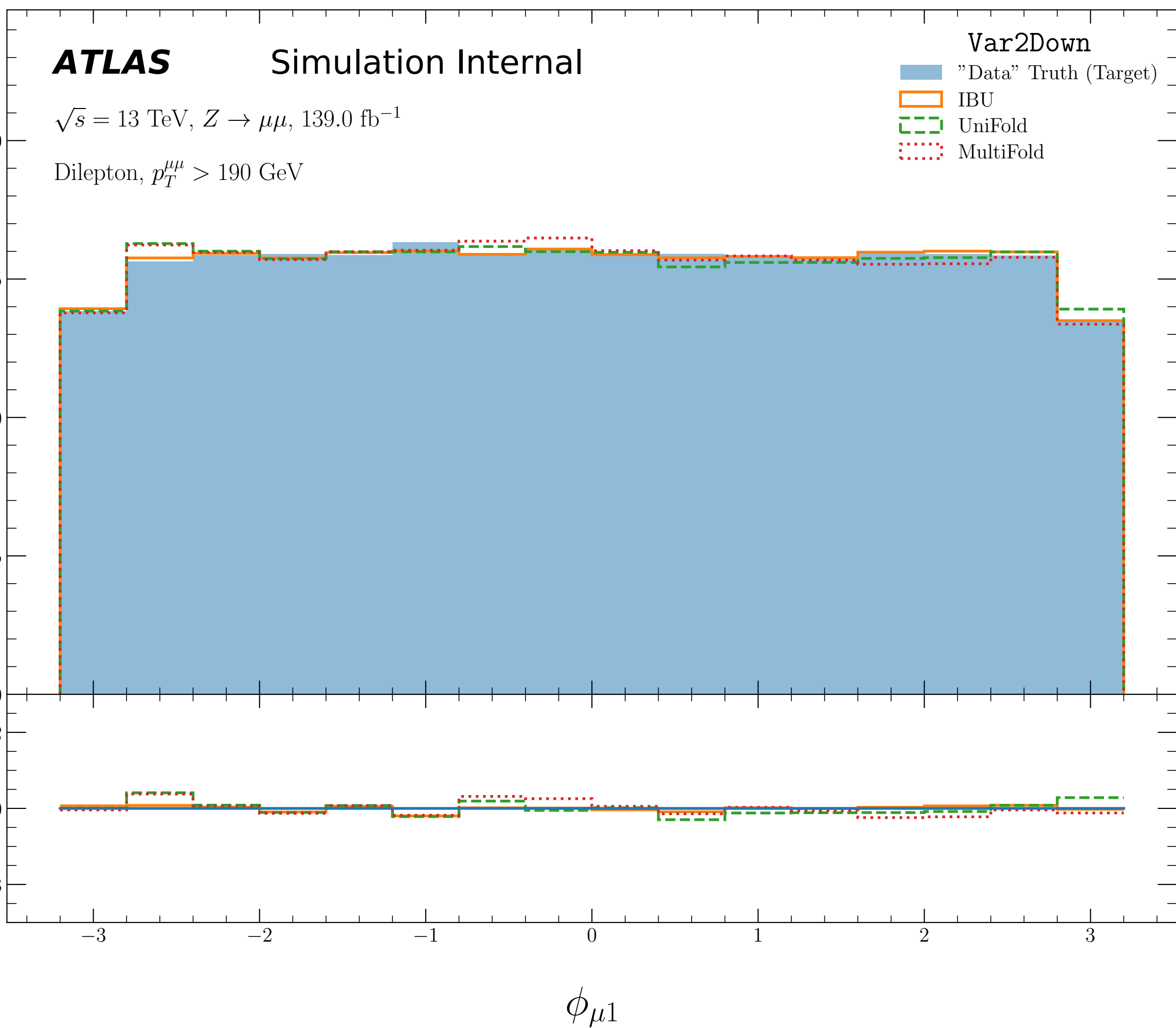
0

1

2

3

$\phi_{\mu 1}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

RenUp

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

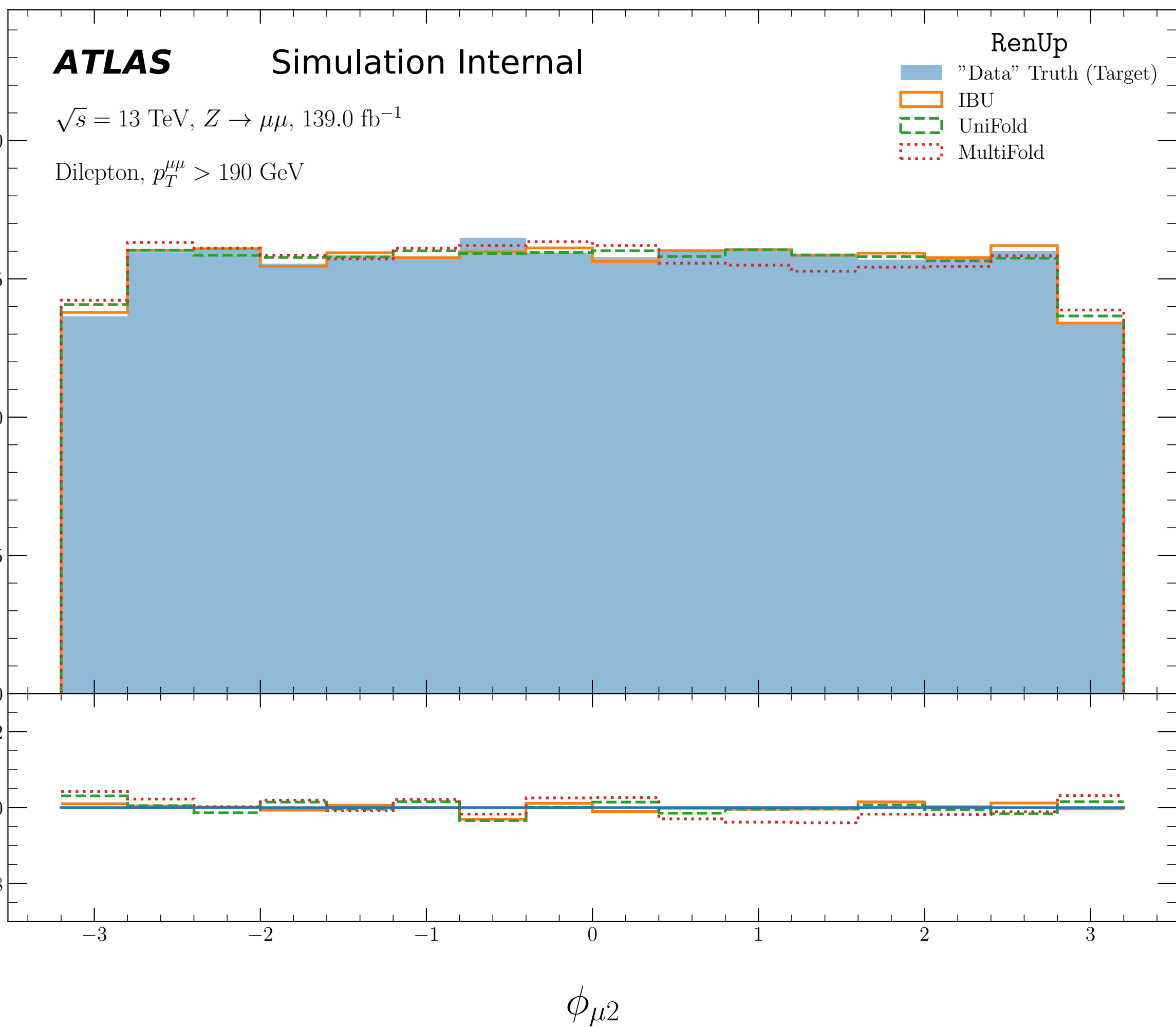
Ratio to "Data" Truth

1.2

1.0

0.8

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

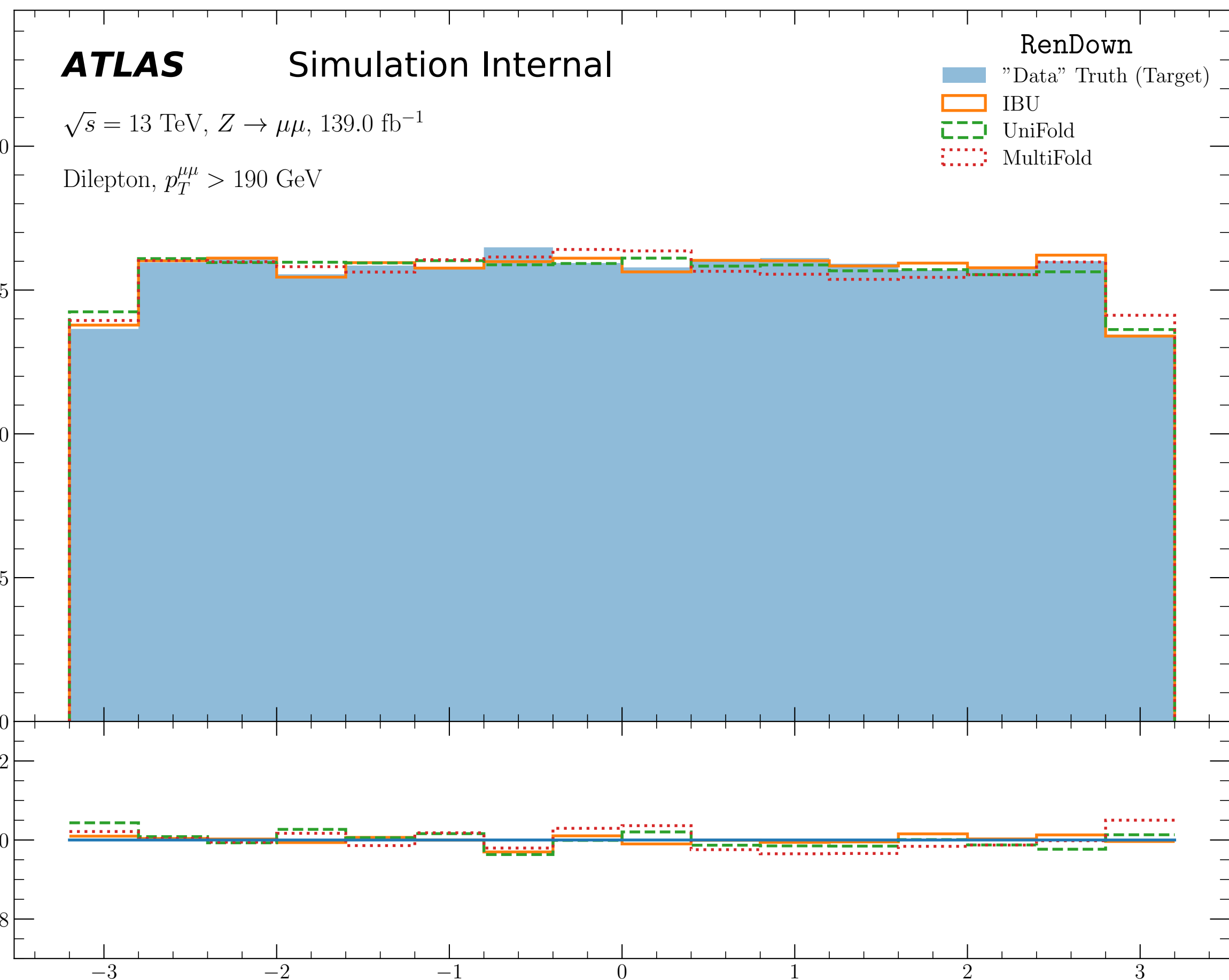
RenDown

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20
0.15
0.10
0.05
0.00
1.2
1.0
0.8

Ratio to "Data" Truth

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

MPIUp

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

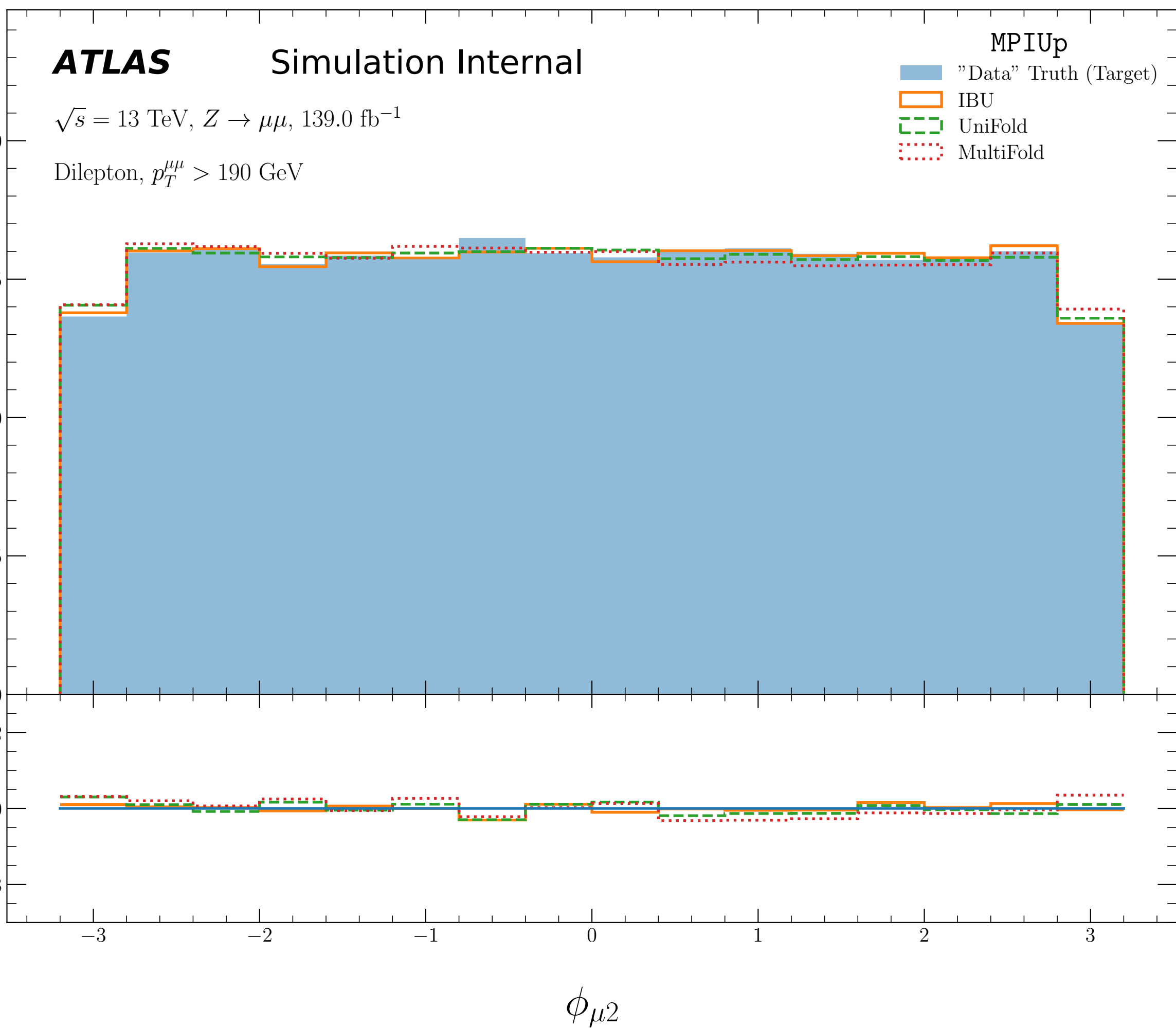
0

1

2

3

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

MPIDown

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

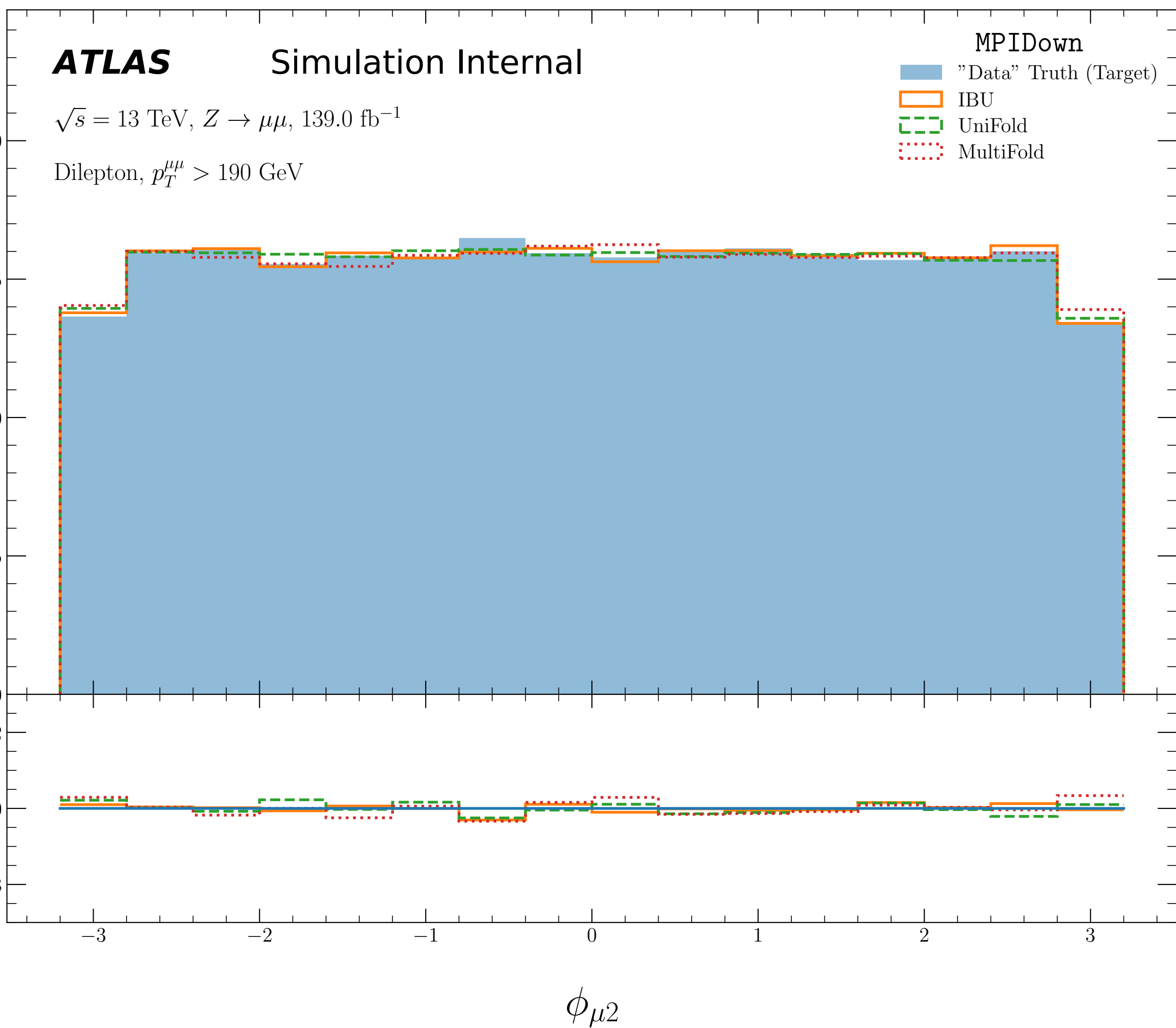
0

1

2

3

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

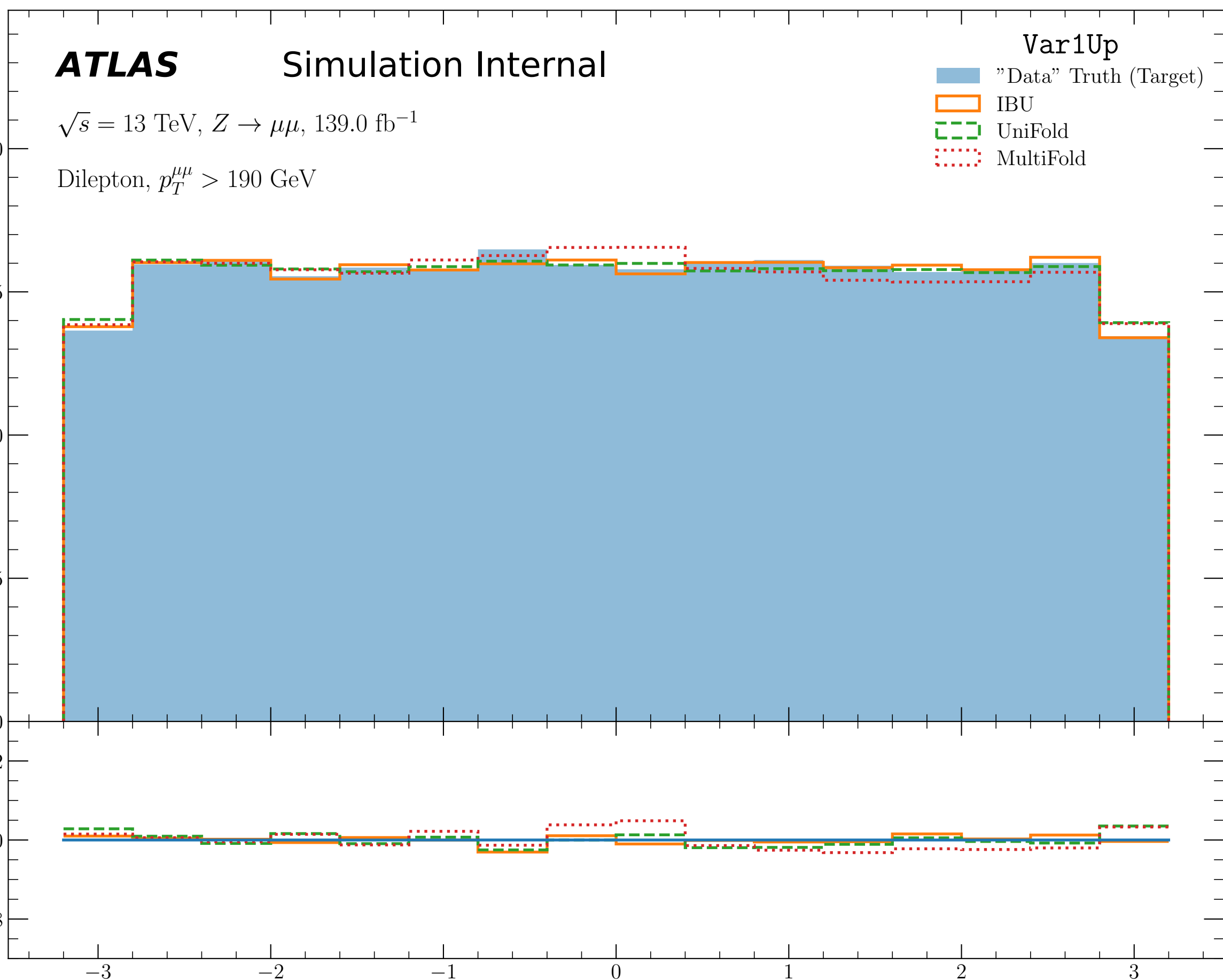
Var1Up

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20
0.15
0.10
0.05
0.00
1.2
1.0
0.8

Ratio to "Data" Truth

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var1Down

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

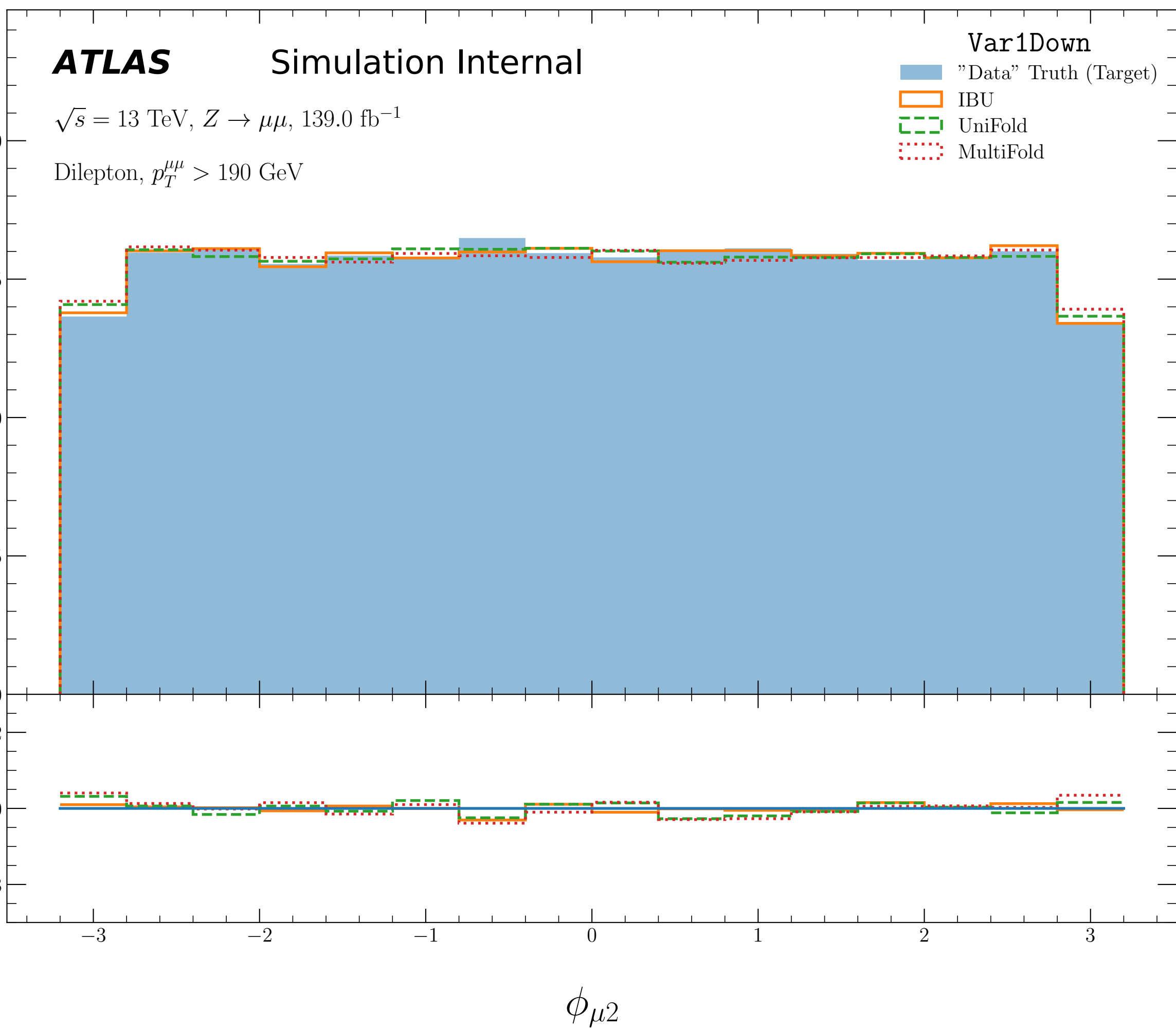
0

1

2

3

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var2Up

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

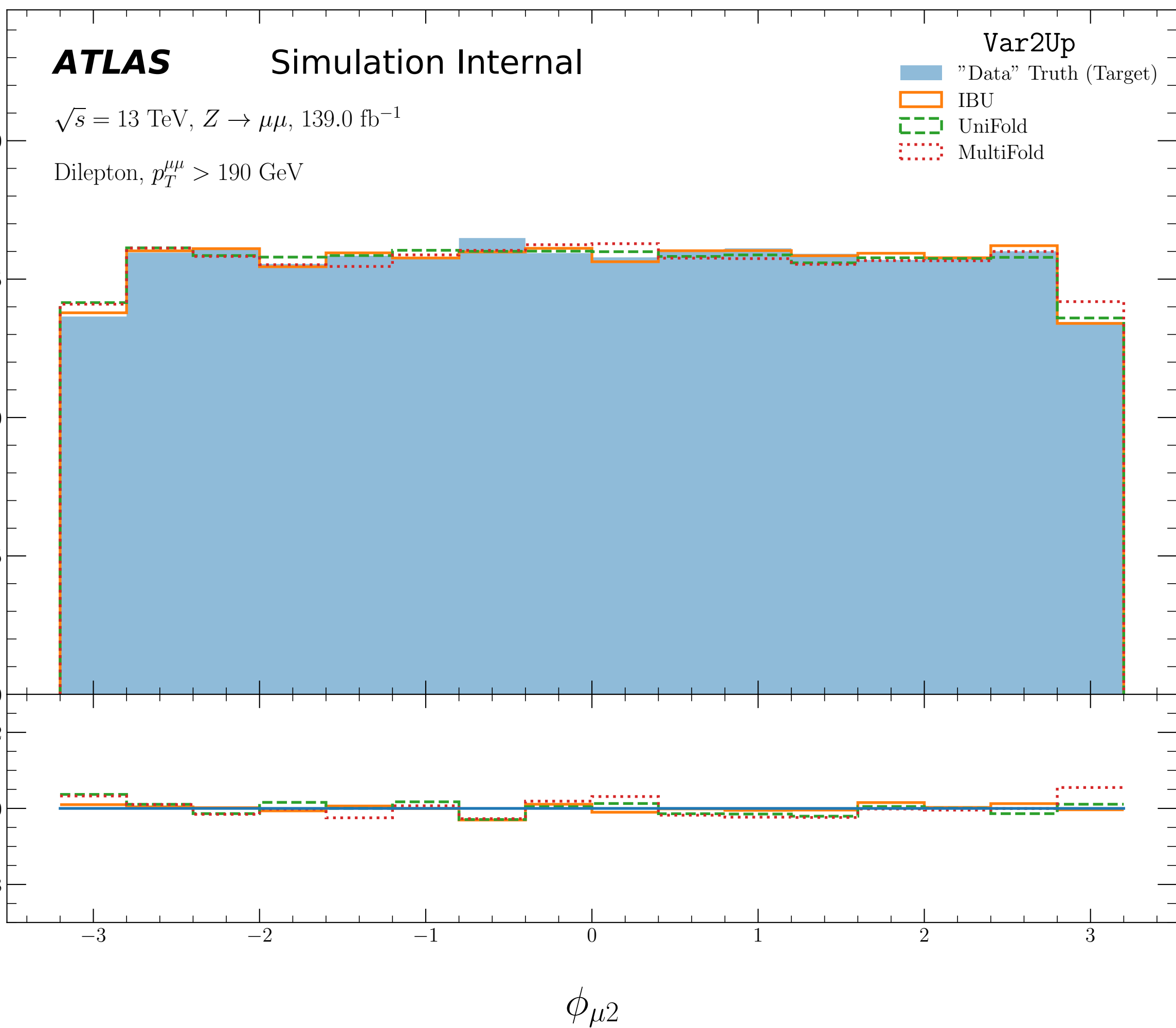
0

1

2

3

$\phi_{\mu 2}$



Events per bin (normalized)

ATLAS

Simulation Internal

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

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

Var2Down

- "Data" Truth (Target)
- IBU
- UniFold
- MultiFold

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

-3

-2

-1

0

1

2

3

$\phi_{\mu 2}$

