ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.12

0.10

0.08

0.06

0.04

0.02

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

0

5

10

15

20

25

30

35

40

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.12

0.10

0.08

0.06

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0.02

0.00

Ratio to "Data" Truth

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0.8

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Leading track jet n_{ch}

ATLAS Simulation Internal

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

MPIDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

Var2Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet n_{ch}

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.16

0.14

0.12

0.10

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0.06

0.04

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0.00

Ratio to "Data" Truth

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Subleading track jet n_{ch}

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Events per bin (normalized)

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Ratio to "Data" Truth

Subleading track jet n_{ch}

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Events per bin (normalized)

Ratio to "Data" Truth

Subleading track jet n_{ch}

ATLAS Simulation Internal

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet m [GeV]

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet m [GeV]

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

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MPIUp

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.200

0.175

0.150

0.125

0.100

0.075

0.050

0.025

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

5

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Subleading track jet m [GeV]

ATLAS Simulation Internal

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

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.200

0.175

0.150

0.125

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0.075

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0.025

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Ratio to "Data" Truth

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5
10
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Subleading track jet m [GeV]

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.008

0.007

0.006

0.005

0.004

0.003

0.002

0.001

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

200

400

600

800

1000

Leading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

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0.008

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Ratio to "Data" Truth

1.2

1.0

0.8

0

200

400

600

800

1000

Leading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.008

0.007

0.006

0.005

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0.003

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0.000

Ratio to "Data" Truth

1.2

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0.8

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200

400

600

800

1000

Leading track jet p_T [GeV]

ATLAS Simulation Internal

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MPIDown

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Ratio to "Data" Truth

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Leading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.008

0.007

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Ratio to "Data" Truth

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1000

Leading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

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Ratio to "Data" Truth

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Leading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

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Leading track jet p_T [GeV]

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Var2Down

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.030

0.025

0.020

0.015

0.010

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Ratio to "Data" Truth

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Subleading track jet p_T [GeV]

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MPIUp

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Ratio to "Data" Truth

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400

500

Subleading track jet p_T [GeV]

ATLAS Simulation Internal

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

Var2Up

"Data" Truth (Target)

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MultiFold

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0.030

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0.010

0.005

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

100

200

300

400

500

Subleading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

Var2Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.030

0.025

0.020

0.015

0.010

0.005

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

100

200

300

400

500

Subleading track jet p_T [GeV]

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

ATLAS Simulation Internal

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

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

ATLAS Simulation Internal

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

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

MPIDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

ATLAS Simulation Internal

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

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

Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.0

0.1

0.2

0.3

0.4

Ratio to "Data" Truth

0.8

1.0

1.2

−2

−1

0

1

2

Leading track jet y

ATLAS Simulation Internal

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

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet y

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IBU

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Ratio to "Data" Truth

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

Subleading track jet y

ATLAS Simulation Internal

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

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Leading track jet ϕ

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_1

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

RenDown

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IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_1

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MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_1

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MPIDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

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Var1Up

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IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

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MultiFold

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_2

ATLAS Simulation Internal

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

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

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

Events per bin (normalized)

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Leading track jet τ_2

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MPIUp

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IBU

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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RenDown

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IBU

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Leading track jet τ_3

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UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

MPIDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

Var2Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Leading track jet τ_3

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Subleading track jet τ_3

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

Subleading track jet τ_3

ATLAS Simulation Internal

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

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Events per bin (normalized)

Ratio to "Data" Truth

Subleading track jet τ_3

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IBU

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Events per bin (normalized)

Ratio to "Data" Truth

Subleading track jet τ_3

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.0175

0.0150

0.0125

0.0100

0.0075

0.0050

0.0025

0.0000

Ratio to "Data" Truth

1.2

1.0

0.8

200 300 400 500 600 700 800 900 1000

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

ATLAS Simulation Internal

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

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

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"Data" Truth (Target)

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Ratio to "Data" Truth

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300

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700

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900

1000

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

ATLAS Simulation Internal

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

Var2Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.0175

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0.0125

0.0100

0.0075

0.0050

0.0025

0.0000

Ratio to "Data" Truth

1.2

1.0

0.8

200 300 400 500 600 700 800 900 1000

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

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Ratio to "Data" Truth

1.2
1.0
0.8

−2
−1
0
1
2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

MPIDown

"Data" Truth (Target)

IBU

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0.40

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

$y_{\mu\mu}$

ATLAS Simulation Internal

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Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Ratio to "Data" Truth

1.2
1.0
0.8

−2
−1
0
1
2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40

0.35

0.30

0.25

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0.10

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Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

Ratio to "Data" Truth

1.2
1.0
0.8

−2
−1
0
1
2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

Var2Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

$y_{\mu\mu}$

ATLAS Simulation Internal

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

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.012

0.010

0.008

0.006

0.004

0.002

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

100

200

300

400

500

600

700

800

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

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.012

0.010

0.008

0.006

0.004

0.002

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

0

100

200

300

400

500

600

700

800

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

ATLAS Simulation Internal

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

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

MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.012

0.010

0.008

0.006

0.004

0.002

0.000

Ratio to "Data" Truth

1.2

1.0

0.8

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100

200

300

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

ATLAS Simulation Internal

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

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MPIDown

"Data" Truth (Target)

IBU

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

ATLAS Simulation Internal

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

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

Var1Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

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0.012

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0.006

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Ratio to "Data" Truth

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Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

Ratio to "Data" Truth

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

ATLAS Simulation Internal

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

ATLAS Simulation Internal

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

RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.0175

0.0150

0.0125

0.0100

0.0075

0.0050

0.0025

0.0000

Ratio to "Data" Truth

1.2

1.0

0.8

50 100 150 200 250 300 350 400

$p_T^{\mu 2}$ [GeV]

ATLAS Simulation Internal

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

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

RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

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$p_T^{\mu 2}$ [GeV]

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MPIUp

"Data" Truth (Target)

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$p_T^{\mu 2}$ [GeV]

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

Var2Up

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.0175

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$p_T^{\mu 2}$ [GeV]

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RenUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

Ratio to "Data" Truth

1.2

1.0

0.8

−2

−1

0

1

2

$\eta_{\mu 1}$

ATLAS Simulation Internal

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

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RenDown

"Data" Truth (Target)

IBU

UniFold

MultiFold

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0

1

2

$\eta_{\mu 1}$

ATLAS Simulation Internal

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MPIUp

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

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Ratio to "Data" Truth

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−1
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1
2

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2

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0.05
0.00

Ratio to "Data" Truth

1.2
1.0
0.8

−2
−1
0
1
2

$\eta_{\mu 1}$

ATLAS Simulation Internal

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

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

Var1Down

"Data" Truth (Target)

IBU

UniFold

MultiFold

Events per bin (normalized)

0.40

0.35

0.30

0.25

0.20

0.15

0.10

0.05

0.00

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