

# ATLAS

# Simulation Internal

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

Dilepton,  $p_{T,l} > 190$  GeV

## Systematic Variation

☐ syst\_ID\_Up

☐ syst\_ID\_Down

☐ `sys_MS_Up`

☐ syst\_MS\_Down

☐ syst\_MSResbias\_Up

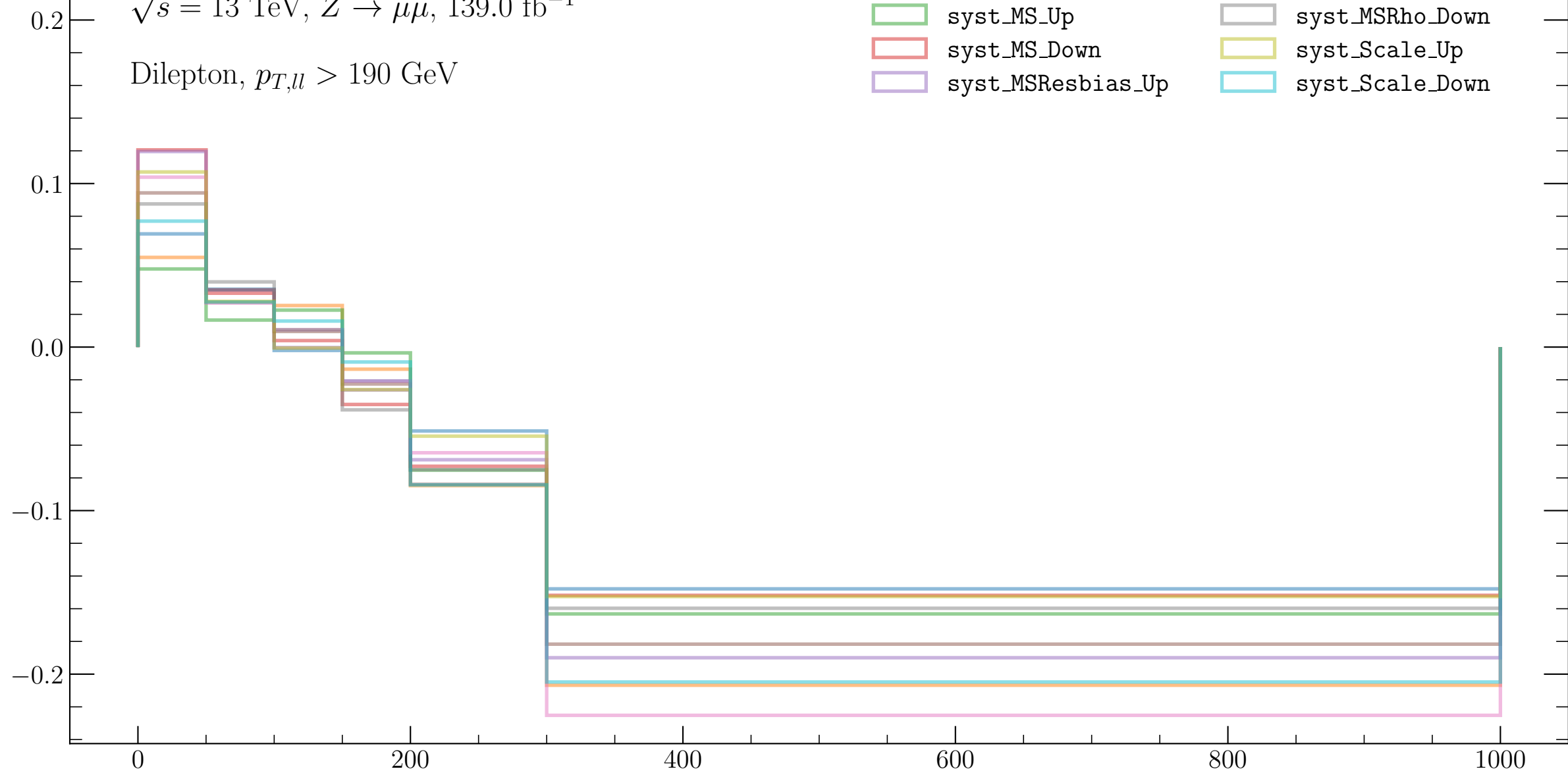
☐ `sys_MSRbias_Down`

☐ `sys_MSRho_Up`

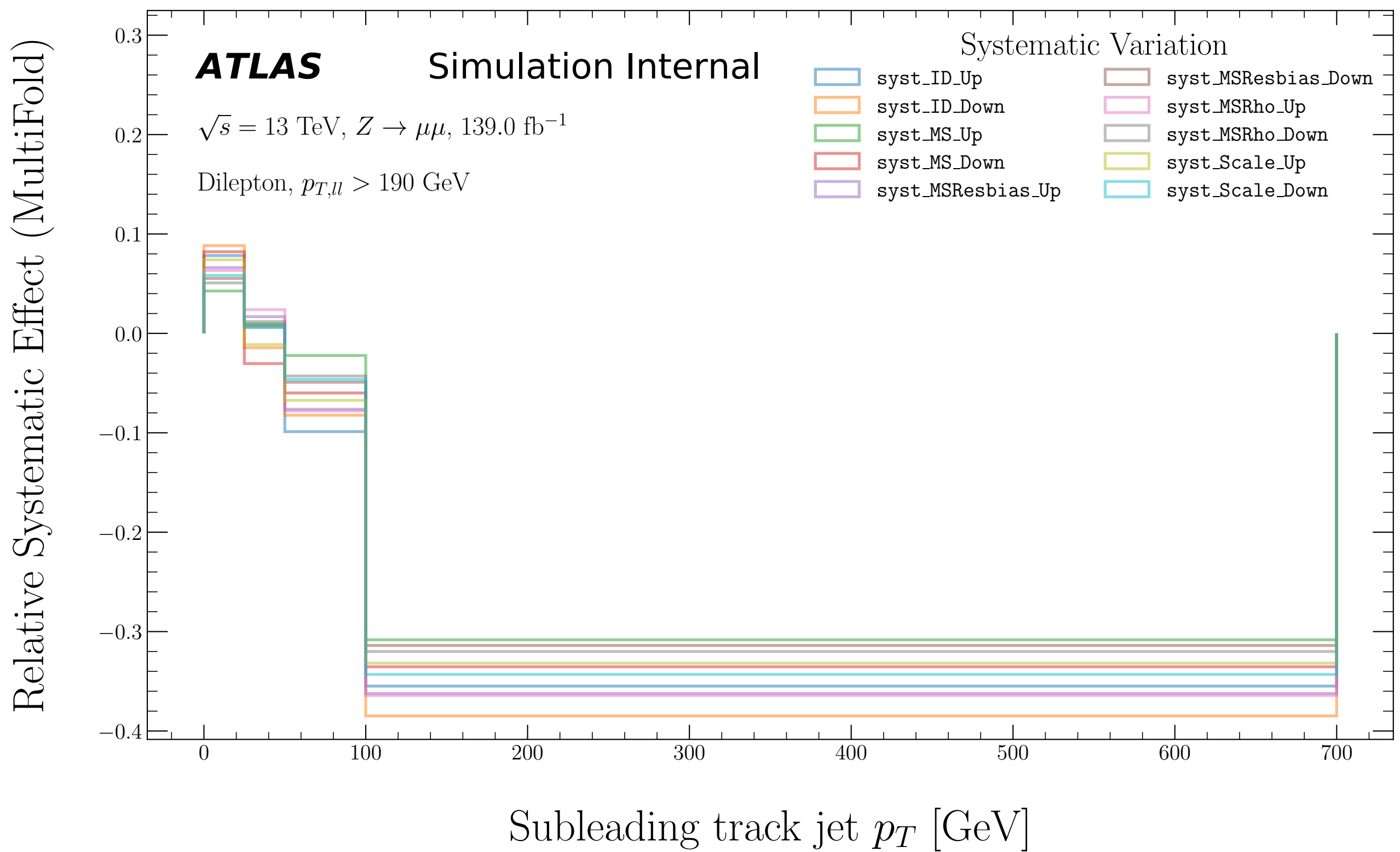
☐ syst\_MSRho\_Down

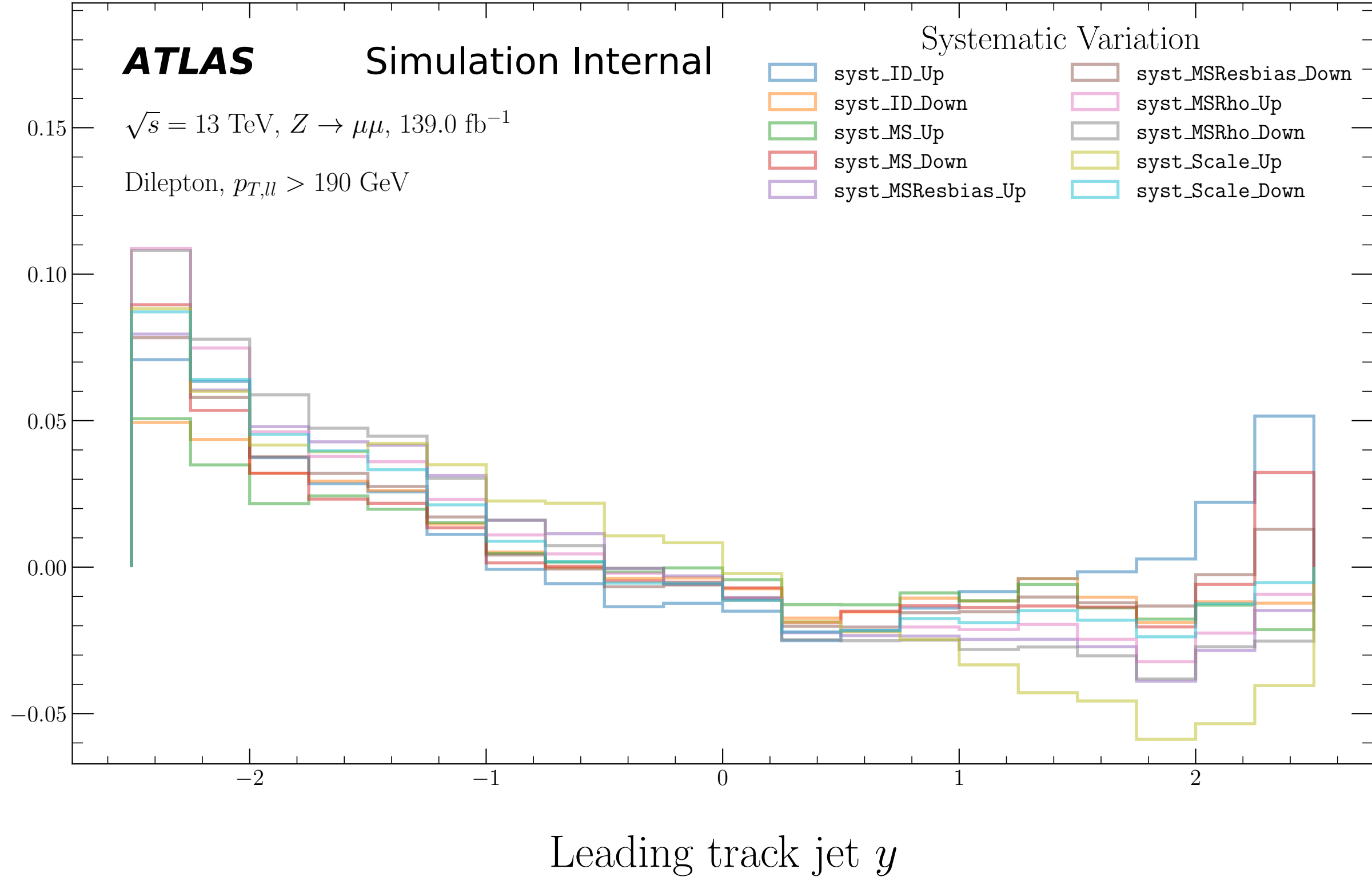
☐ syst\_Scale\_Up

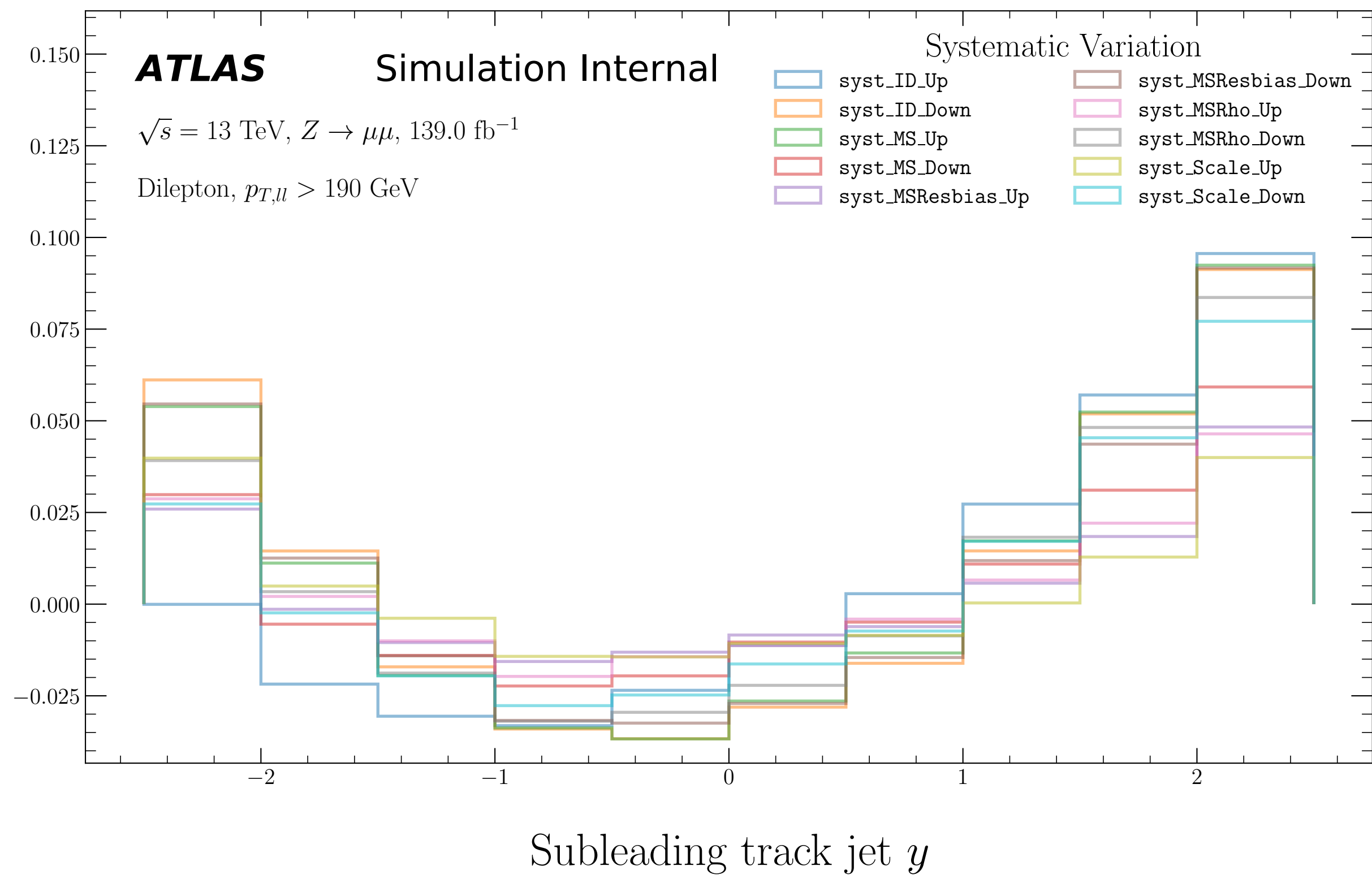
☐ syst\_Scale\_Down



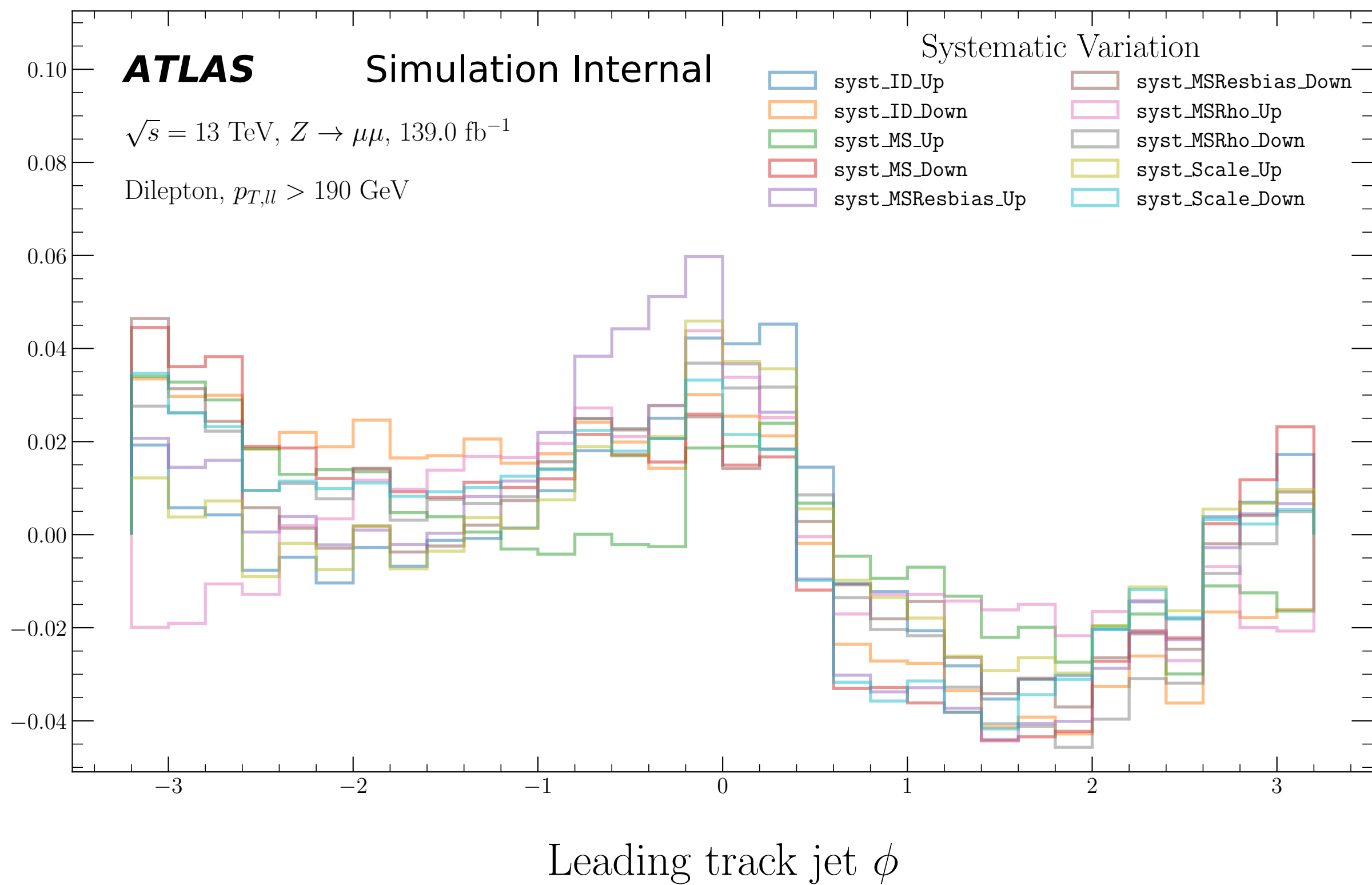
Leading track jet  $p_T$  [GeV]

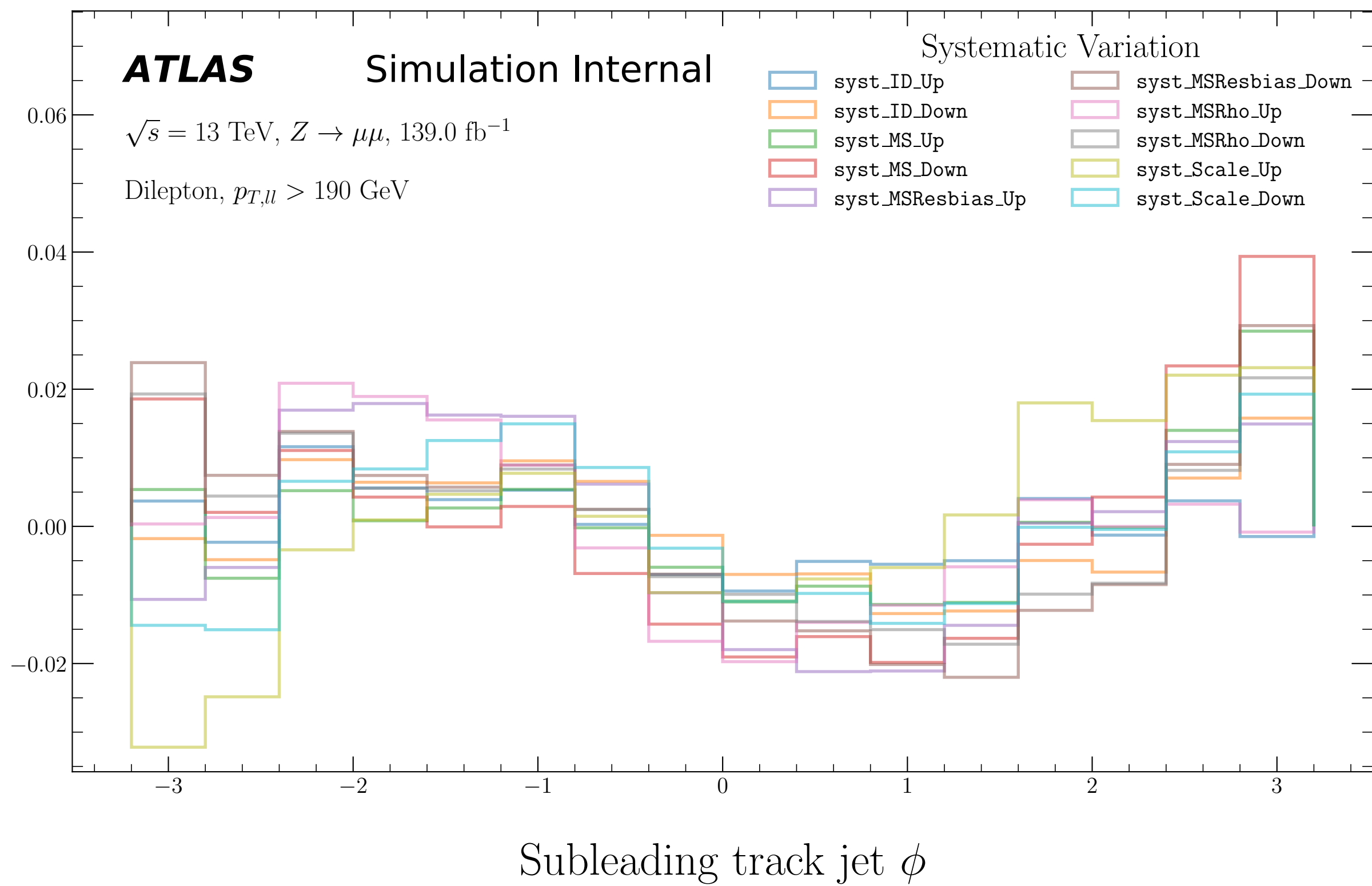










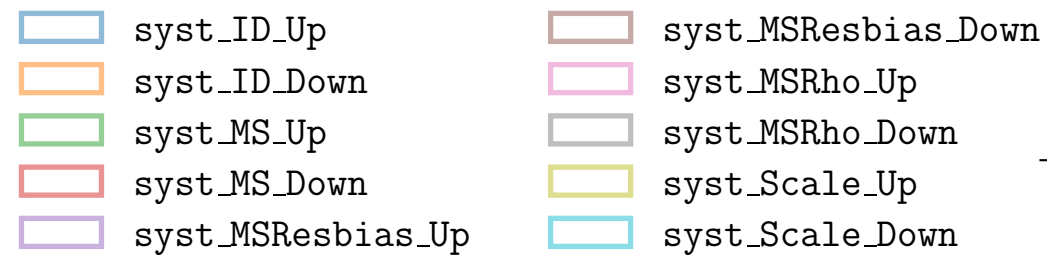


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Systematic Variation



0.15

0.10

0.05

0.00

0.0

0.2

0.4

0.6

0.8

1.0

Leading track jet  $\tau_1$

**ATLAS**

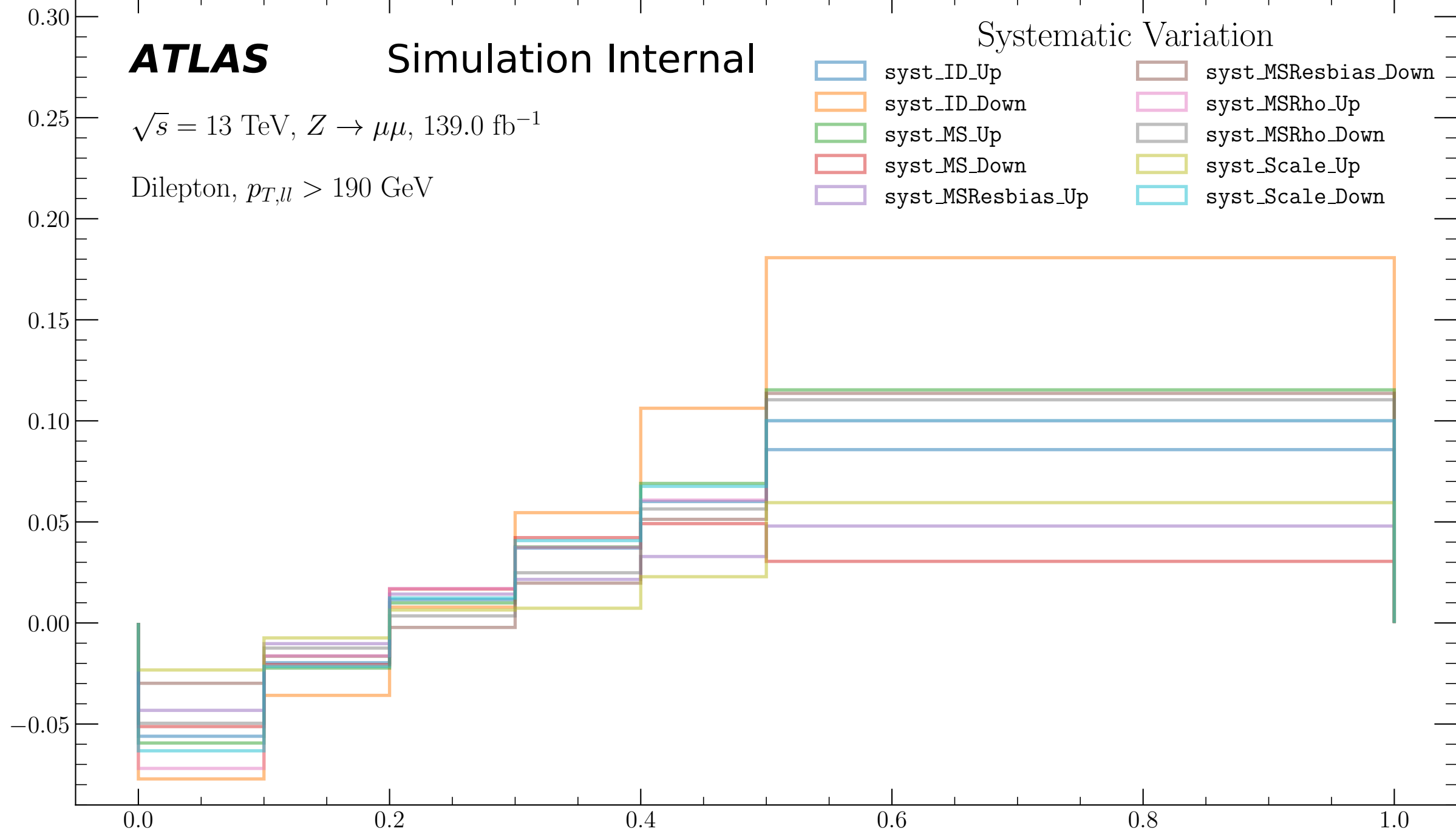
Simulation Internal

Systematic Variation

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

Dilepton,  $p_{T,l} > 190 \text{ GeV}$

- |  |  |
|--|--|
| <span style="color: #4682B4;">▭</span> syst_ID_Up        | <span style="color: #A0522D;">▭</span> syst_MSResbias_Down |
| <span style="color: #FF8C00;">▭</span> syst_ID_Down      | <span style="color: #FF69B4;">▭</span> syst_MSResbias_Up   |
| <span style="color: #3CB371;">▭</span> syst_MS_Up        | <span style="color: #D3D3D3;">▭</span> syst_MSResbias_Down |
| <span style="color: #DC143C;">▭</span> syst_MS_Down      | <span style="color: #FFD700;">▭</span> syst_MSResbias_Up   |
| <span style="color: #9370DB;">▭</span> syst_MSResbias_Up | <span style="color: #90EE90;">▭</span> syst_MSResbias_Down |
|  | <span style="color: #FFD700;">▭</span> syst_Scale_Up       |
|  | <span style="color: #00CED1;">▭</span> syst_Scale_Down     |



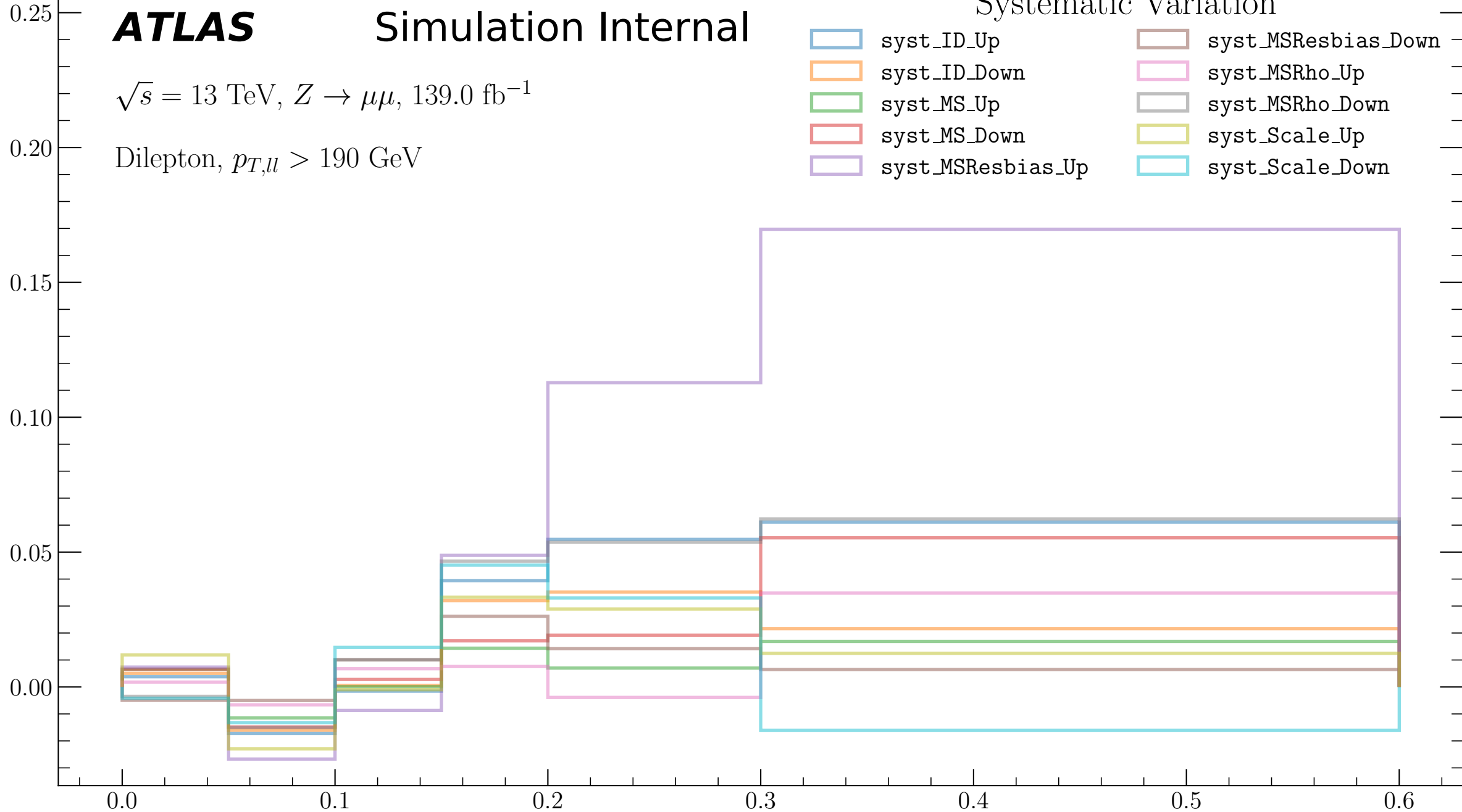
Subleading track jet  $\tau_1$

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Systematic Variation

Leading track jet  $\tau_2$

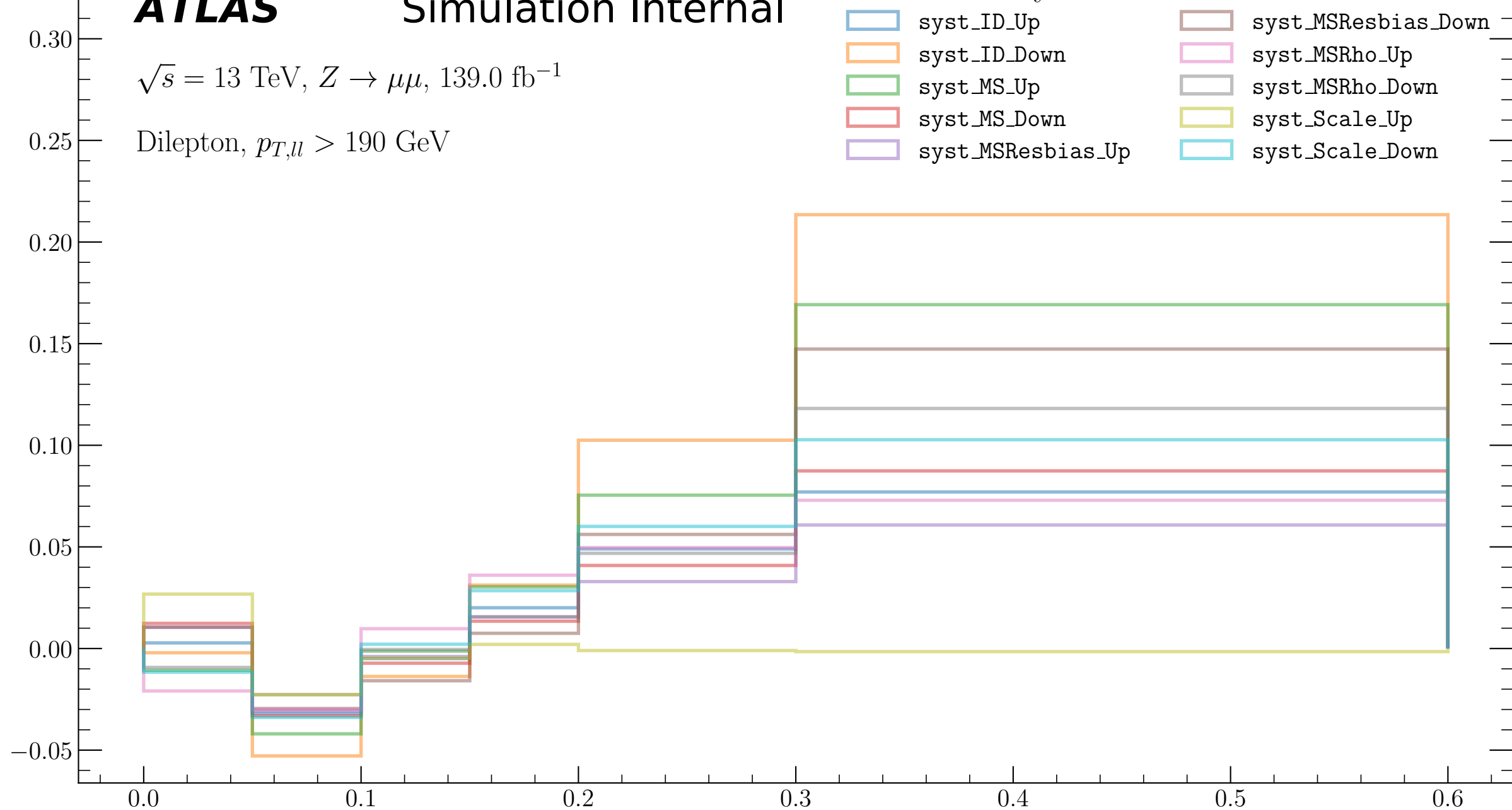
# ATLAS

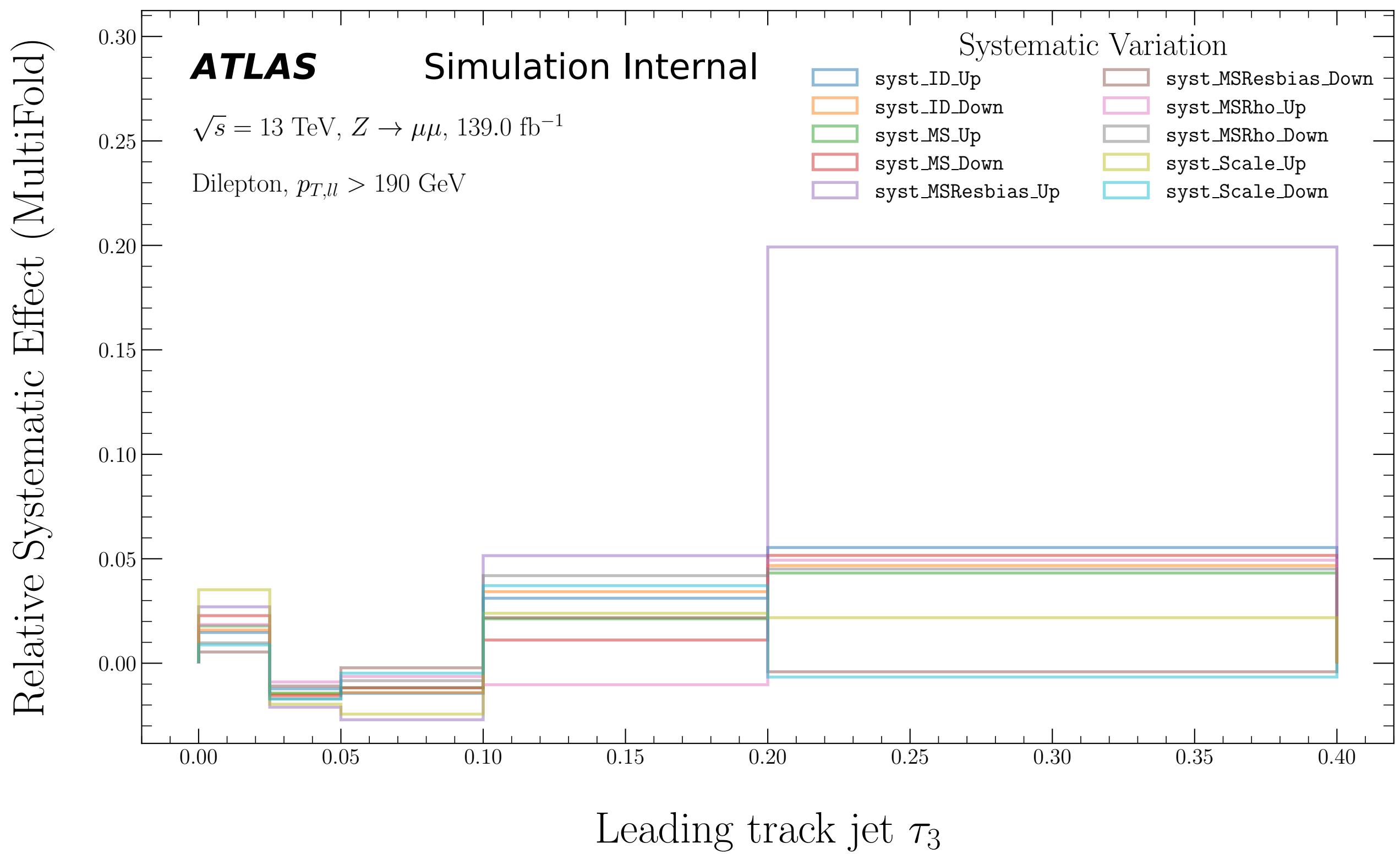
# Simulation Internal

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

Dilepton,  $p_{T,l} > 190$  GeV

## Systematic Variation

Subleading track jet  $\tau_2$

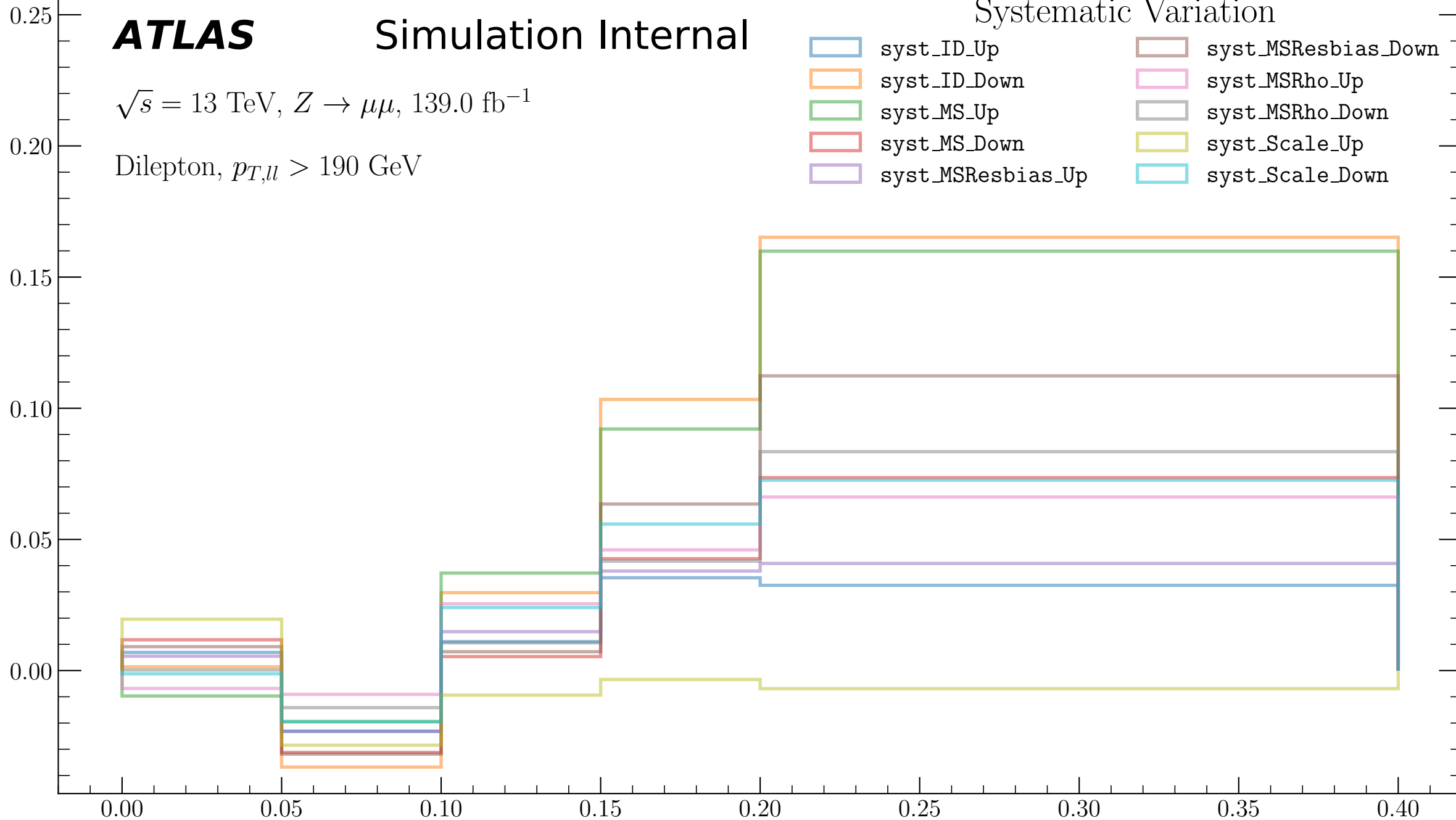


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Simulation Internal

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

Systematic Variation

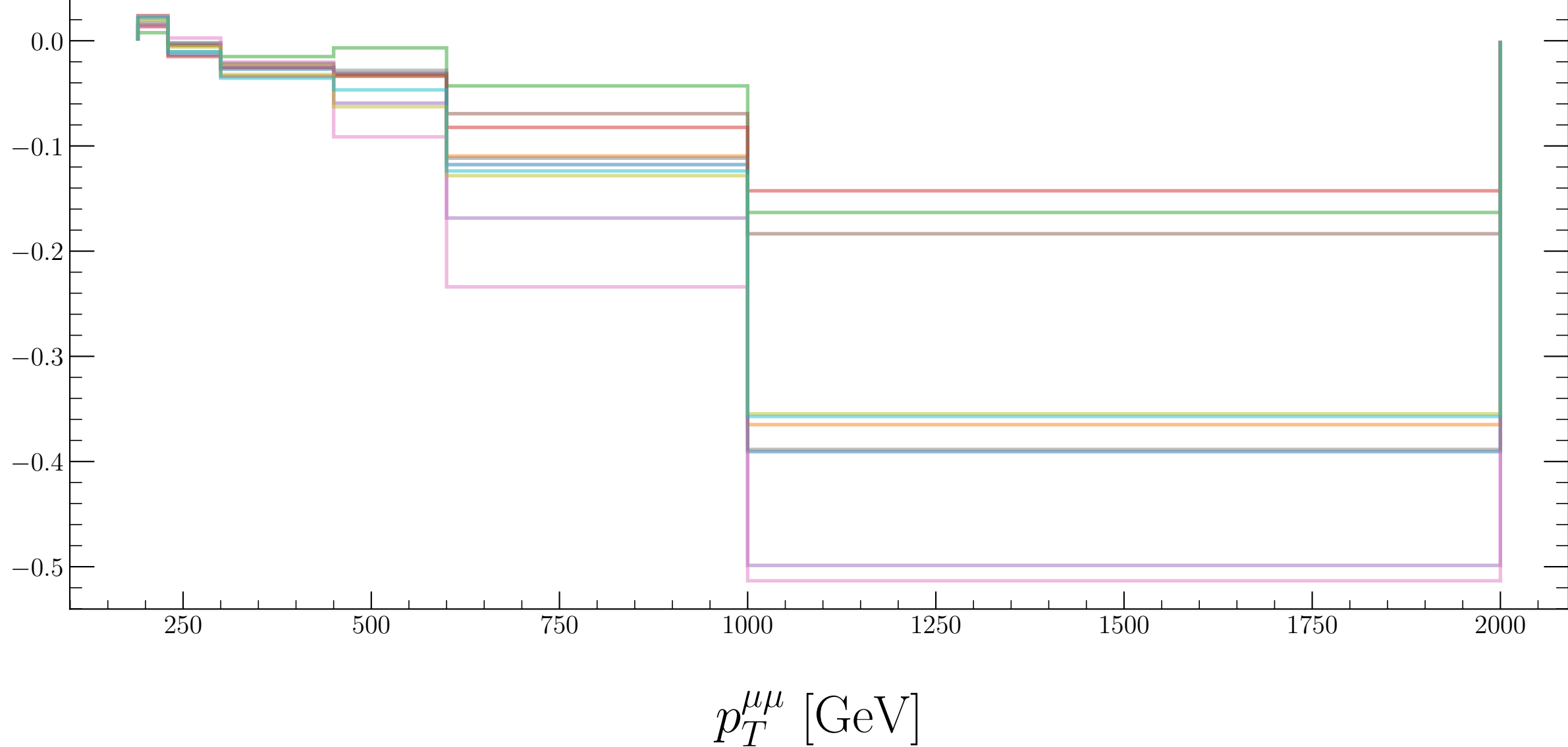
Subleading track jet  $\tau_3$

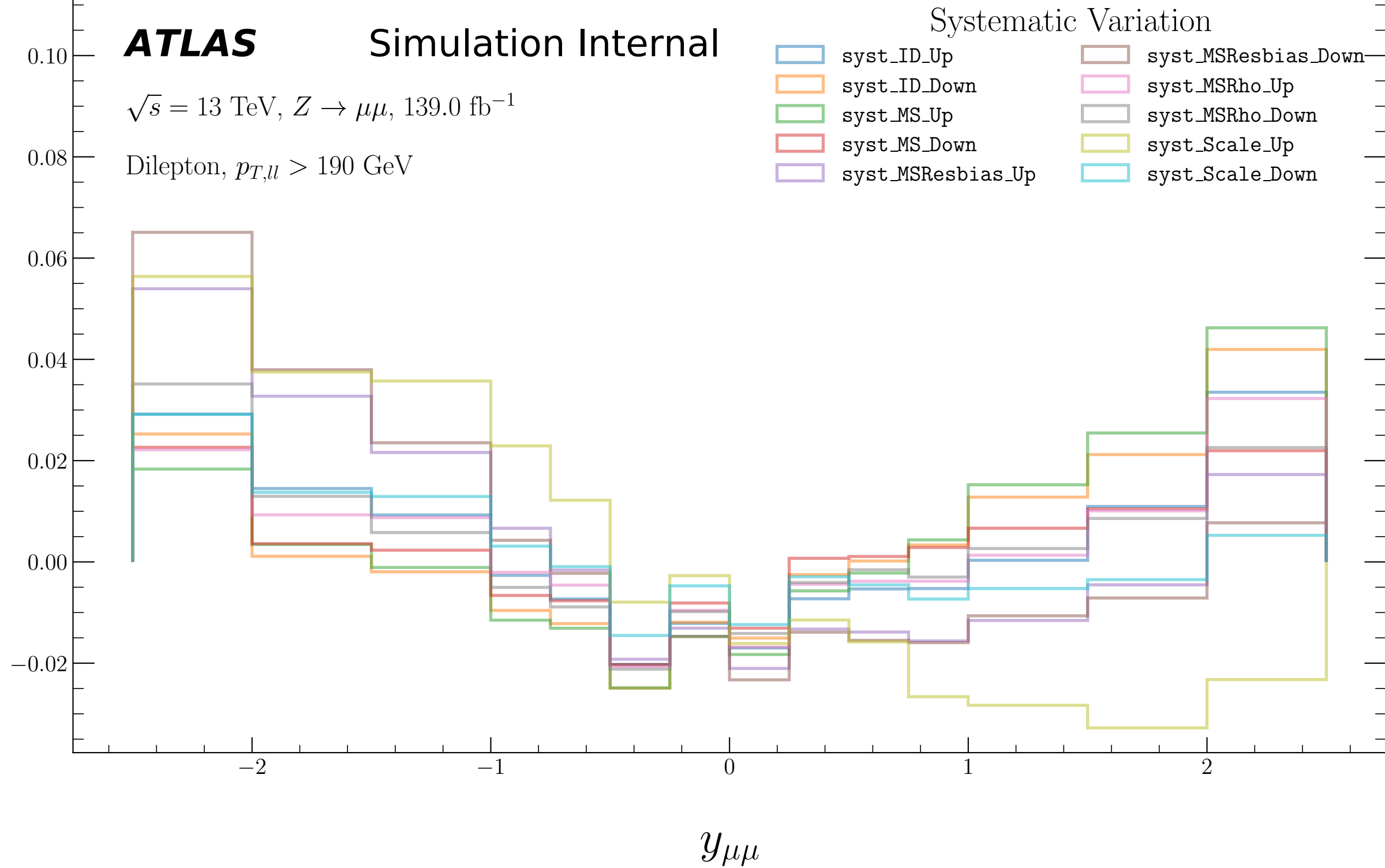


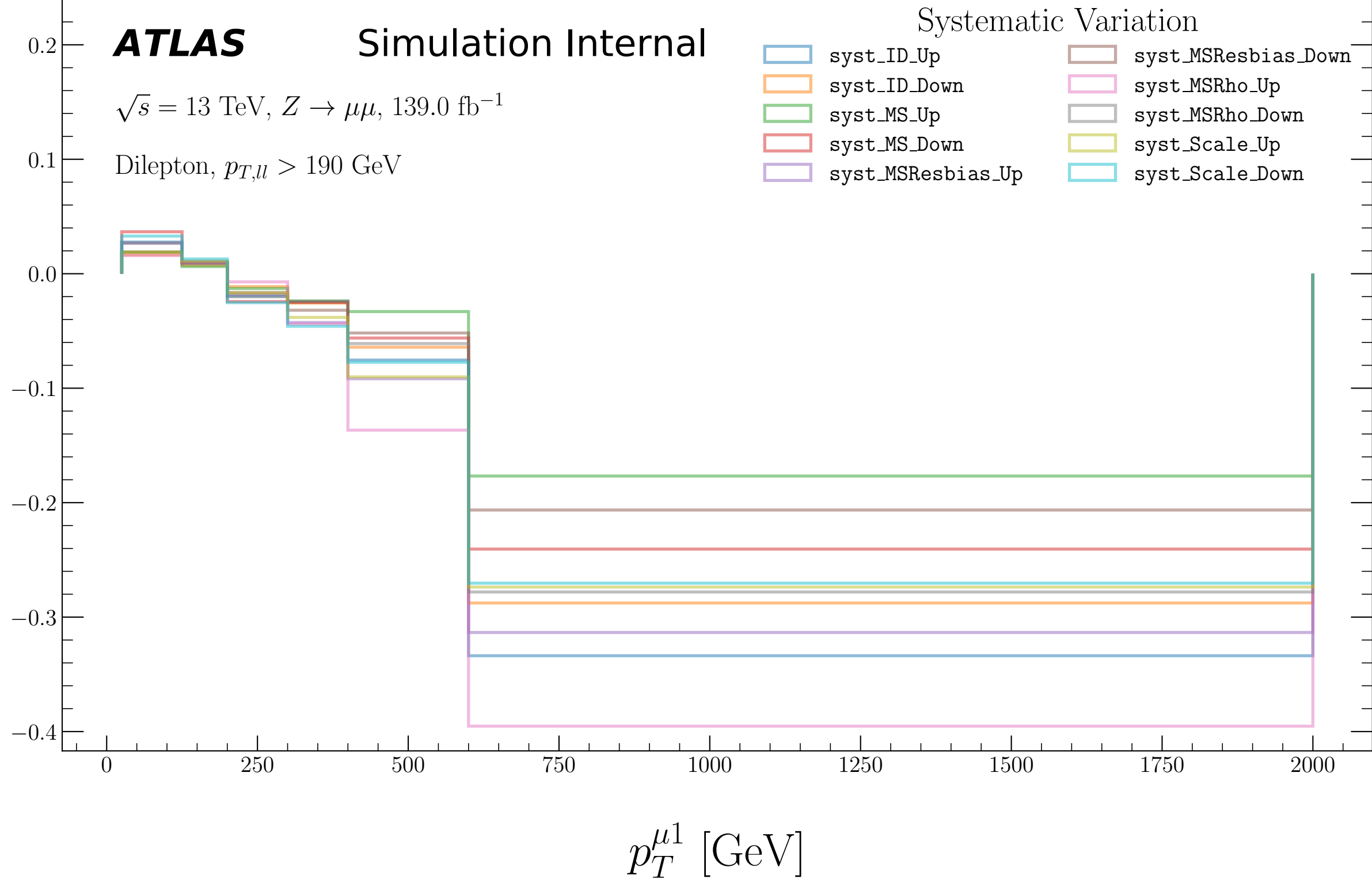
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Simulation Internal

Systematic Variation

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



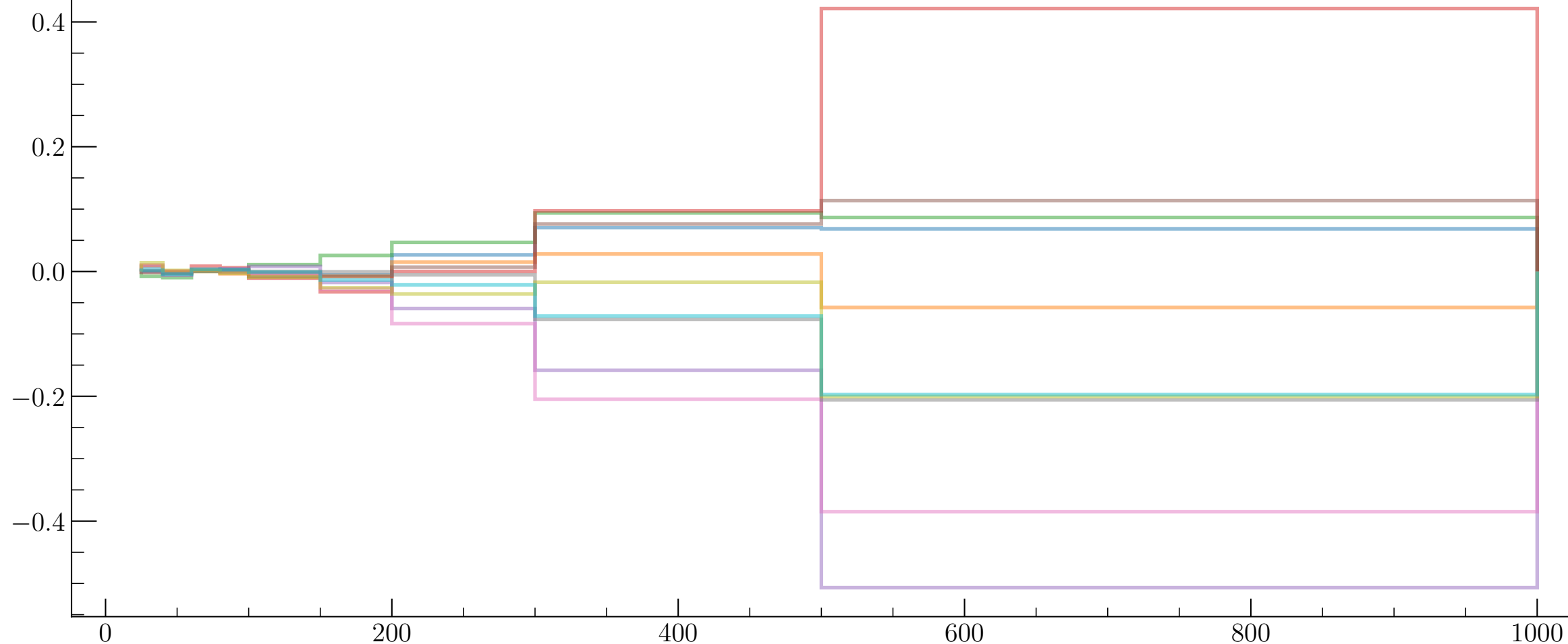


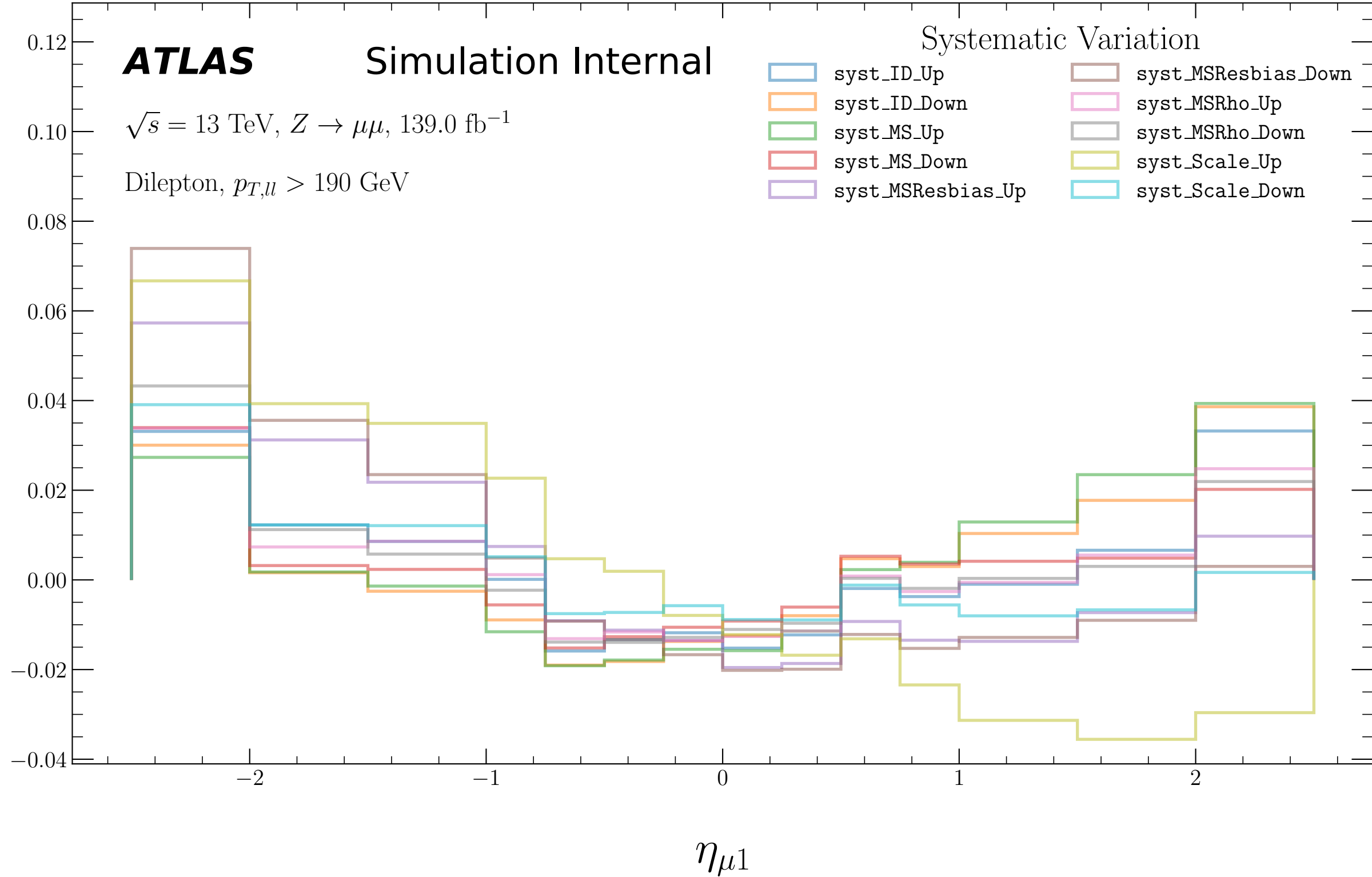
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Simulation Internal

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

Systematic Variation

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

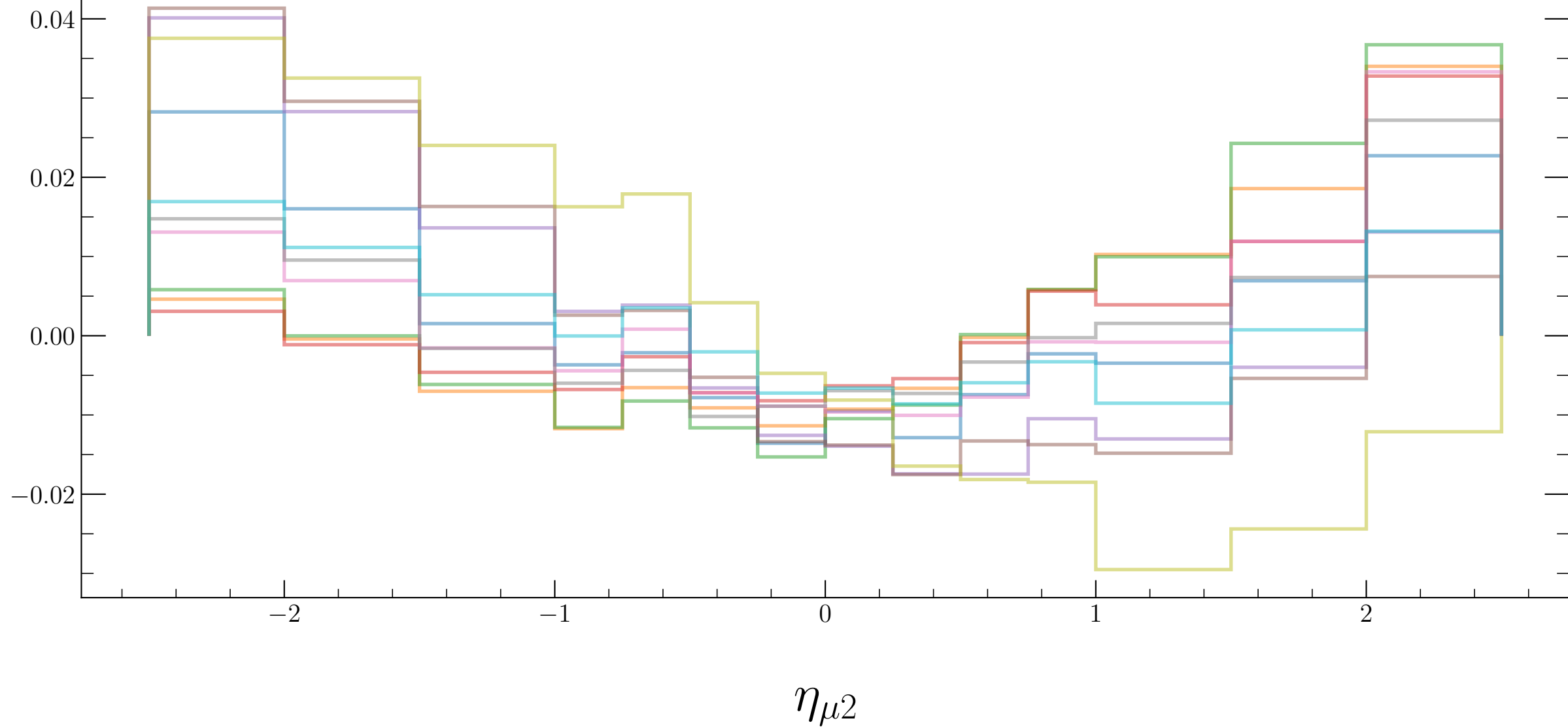


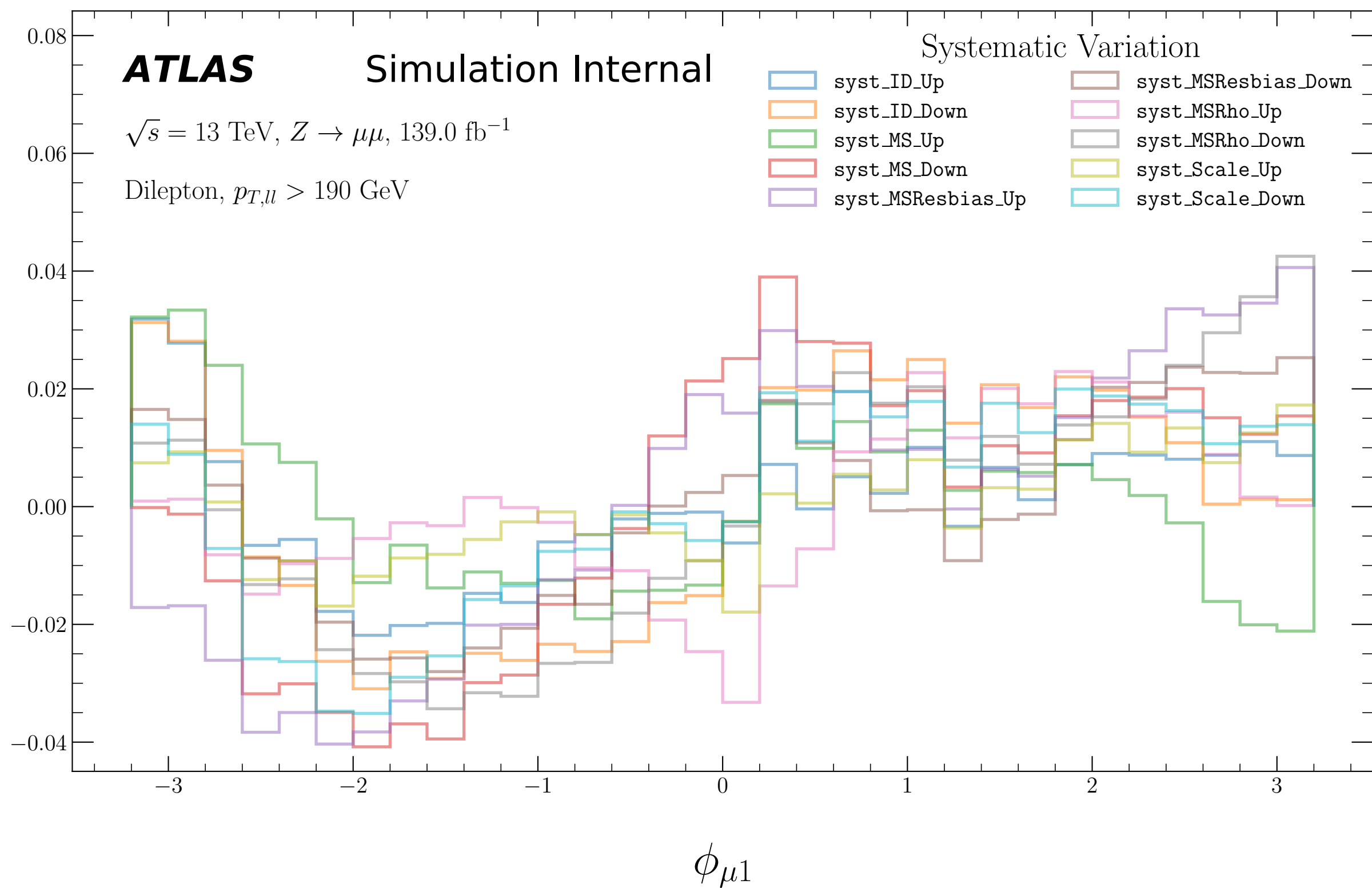
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Systematic Variation



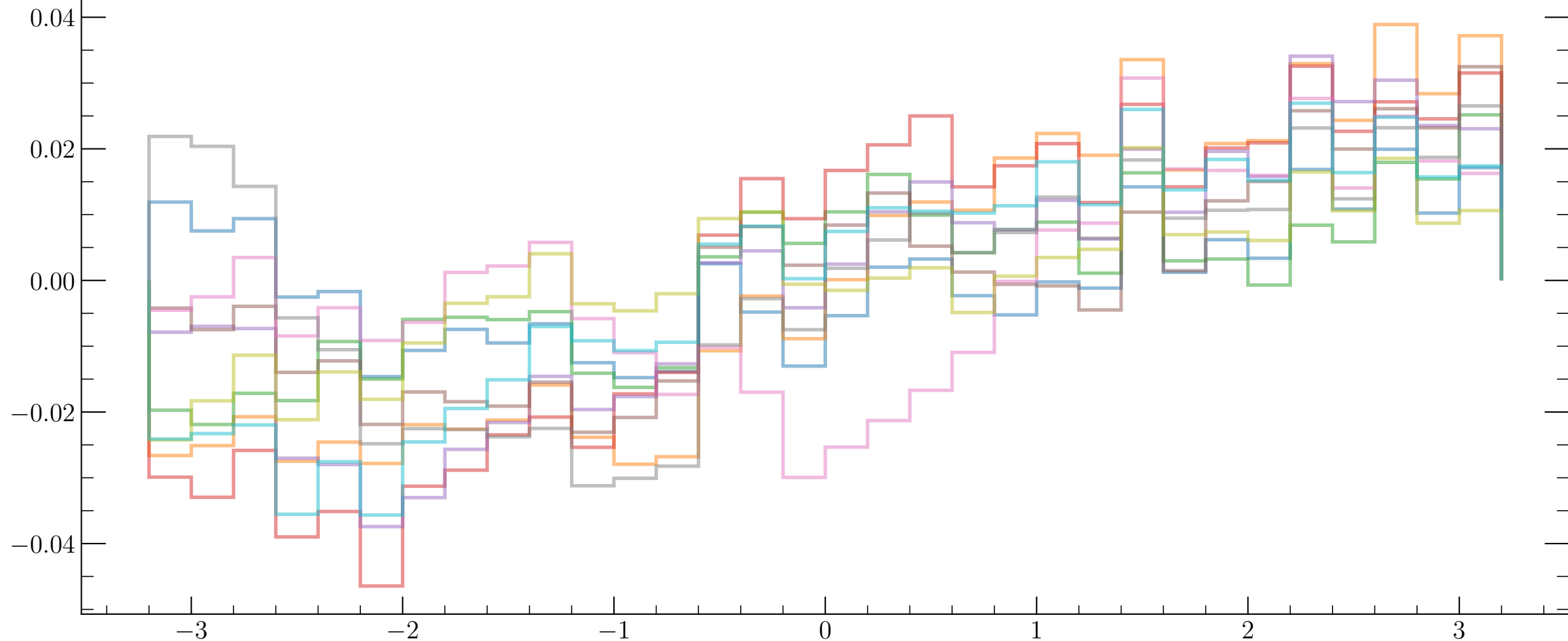


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Systematic Variation

 $\phi_{\mu 2}$