CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\frac{1}{N} \, dN/d \, Q_{D_1}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_1}^{k=0.1}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf
Py8 Flat-gen

$92 < P_T < 119$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\frac{1}{N} dN/d\ Q_{D_1}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_1}^{k=0.2}$

CMS *Preliminary* $\qquad$ 41.48 fb^{-1} (13 TeV)

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

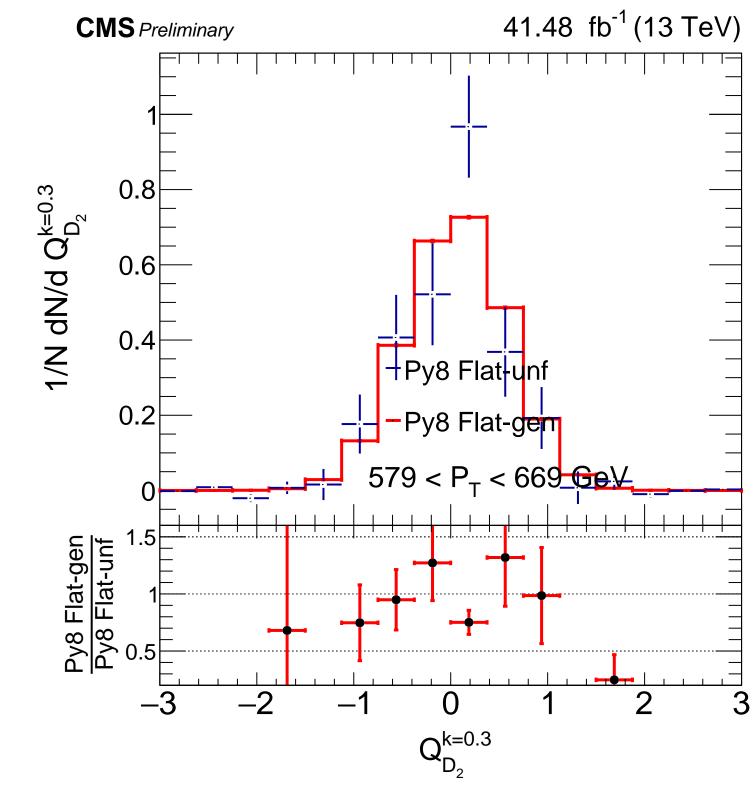Py8 Flat-gen

$185 < P_T < 251$ GeV

$Q_{D_1}^{k=0.4}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)
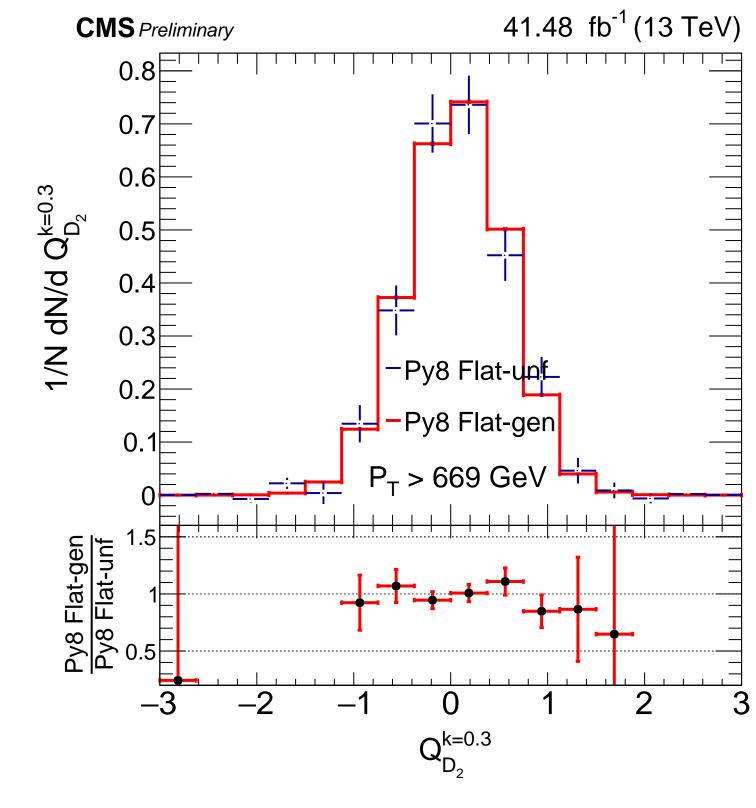
CMS *Preliminary* $\qquad$ 41.48 fb^{-1} (13 TeV)

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$Q_{D_1}^{k=0.6}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

388 < P$_T$ < 467 GeV

Py8 Flat-unf
Py8 Flat-gen

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\frac{1}{N} dN/d\, Q_{D_2}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\frac{1}{N} \, dN/d \, Q_{D_2}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_2}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf
Py8 Flat-gen

$119 < P_T < 185$ GeV

$Q_{D_2}^{k=0.3}$

$\frac{1}{N} dN/d\, Q_{D_2}^{k=0.3}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\frac{1}{N} dN/d \ Q_{D_2}^{k=0.6}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_2}^{k=0.6}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

$Q_{D_2}^{k=0.7}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

$Q_{D_2}^{k=1.0}$

$\frac{1}{N}\, dN/d\, Q_{D_2}^{k=1.0}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$1/N \, dN/d \, Q_{D_2}^{k=1.0}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{D_2}^{k=1.0}$

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$1/N \, dN/d \, Q_{L_1}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.1}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

Vertical axis (top): $1/N\ dN/d\ Q_{L_1}^{k=0.1}$

Vertical axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

Horizontal axis: $Q_{L_1}^{k=0.1}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

y-axis (top): $1/N \, dN/d \, Q_{L_1}^{k=0.1}$

y-axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{L_1}^{k=0.1}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$1/N \ dN/d \ Q_{L_1}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

CMS *Preliminary* $\qquad$ 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

y-axis (main): $1/N\ dN/d\ Q_{L_1}^{k=0.2}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{L_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$1/N \, dN/d \, Q_{L_1}^{k=0.2}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.2}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{L_1}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\frac{1}{N} \frac{dN}{d Q_{L_1}^{k=0.2}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$\frac{1}{N} \, dN/d \, Q_{L_1}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$Q_{L_1}^{k=0.3}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$1/N\ dN/d\ Q_{L_1}^{k=0.3}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.3}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\frac{1}{N} \frac{dN}{d Q_{L_1}^{k=0.4}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.4}$

CMS *Preliminary*　　　　　　41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\frac{1}{N} \frac{dN}{d\, Q_{L_1}^{k=0.4}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.4}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$\frac{1}{N} dN/d\, Q_{L_1}^{k=0.4}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.4}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\frac{1}{N} \frac{dN}{d Q_{L_1}^{k=0.5}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

$Q_{L_1}^{k=0.5}$

$1/N\ dN/d\ Q_{L_1}^{k=0.5}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$Q_{L_1}^{k=0.5}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{L_1}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_1}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

CMS *Preliminary*　　　　　41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{L_2}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.1}$

CMS *Preliminary*

$41.48 \ fb^{-1} (13 \ TeV)$

$1/N \ dN/d \ Q_{L_2}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518 \ GeV$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$Q_{L_2}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\frac{1}{N} \, dN/d \, Q_{L_2}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.1}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

Vertical axis (top): $1/N \, dN/d \, Q_{L_2}^{k=0.2}$

Vertical axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

Horizontal axis: $Q_{L_2}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\frac{1}{N} dN/d\ Q_{L_2}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

$185 < P_T < 251$ GeV

Py8 Flat-unf
Py8 Flat-gen

$Q_{L_2}^{k=0.4}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$518 < P_T < 579$ GeV

Py8 Flat-unf

Py8 Flat-gen

$\frac{1}{N} \frac{dN}{d Q_{L_2}^{k=0.4}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.4}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{L_2}^{k=0.4}$

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.4}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$\frac{1}{N} dN/d\ Q_{L_2}^{k=0.4}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.4}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$\frac{1}{N}\,dN/d\,Q_{L_2}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$\frac{1}{N} dN/d\, Q_{L_2}^{k=0.5}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

y-axis (top): $1/N \ dN/d \ Q_{L_2}^{k=0.5}$

y-axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{L_2}^{k=0.5}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf
Py8 Flat-gen

$319 < P_T < 388$ GeV

$\frac{1}{N} \frac{dN}{d Q_{L_2}^{k=0.5}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$Q_{L_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$1/N \, dN/d \, Q_{L_2}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

y-axis: $1/N\ dN/d\ Q_{L_2}^{k=0.7}$

ratio y-axis: $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{L_2}^{k=0.7}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Plot: $1/N\ dN/d\ Q_{L_2}^{k=0.7}$ versus $Q_{L_2}^{k=0.7}$

Legend:
- Py8 Flat-unf
- Py8 Flat-gen

$518 < P_T < 579$ GeV

Lower panel: $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

y-axis (top): $1/N \, dN/d \, Q_{L_2}^{k=0.7}$

y-axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{L_2}^{k=0.7}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{L_2}^{k=0.8}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{L_2}^{k=0.8}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

CMS *Preliminary*   41.48 fb⁻¹ (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$\frac{1}{N}\, dN/d\, Q_{L_2}^{k=1.0}$

$Q_{L_2}^{k=1.0}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$\frac{1}{N} \, dN/d \, Q_{T_1}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.1}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_1}^{k=0.1}$

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

Vertical axis (upper): $1/N\ dN/d\ Q_{T_1}^{k=0.1}$

Vertical axis (lower): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

Horizontal axis: $Q_{T_1}^{k=0.1}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

y-axis (main): $1/N \, dN/d \, Q_{T_1}^{k=0.1}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_1}^{k=0.1}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

y-axis (main): $1/N\ dN/d\ Q_{T_1}^{k=0.1}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_1}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$\frac{1}{N} \frac{dN}{d Q_{T_1}^{k=0.1}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$1/N\ dN/d\ Q_{T_1}^{k=0.2}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

$\frac{1}{N} dN/d\, Q_{T_1}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$1/N \, dN/d \, Q_{T_1}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\frac{1}{N} \, dN/d \, Q_{T_1}^{k=0.3}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.3}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf
Py8 Flat-gen

$319 < P_T < 388$ GeV

y-axis (top): $1/N\ dN/d\ Q_{T_1}^{k=0.3}$

y-axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_1}^{k=0.3}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_1}^{k=0.3}$

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.3}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_1}^{k=0.3}$

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.3}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

y-axis (top panel): $1/N\ dN/d\ Q_{T_1}^{k=0.4}$

y-axis (bottom panel): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_1}^{k=0.4}$

41.48 fb^{-1} (13 TeV)

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\frac{1}{N} \frac{dN}{d Q_{T_1}^{k=0.4}}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.4}$

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_1}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_1}^{k=0.5}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.5}$

41.48 fb^{-1} (13 TeV)

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

$\frac{1}{N} dN/d\, Q_{T_1}^{k=0.7}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.7}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$\frac{1}{N} dN/d\ Q_{T_1}^{k=0.7}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_1}^{k=0.7}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

y-axis (main): $1/N\ dN/d\ Q_{T_2}^{k=0.1}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\frac{1}{N} dN/d\ Q_{T_2}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.1}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$1/N \, dN/d \, Q_{T_2}^{k=0.1}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

y-axis (main): $1/N \; dN/d \; Q_{T_2}^{k=0.1}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

y-axis (main): $1/N \, dN/d \, Q_{T_2}^{k=0.1}$

y-axis (ratio): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_2}^{k=0.1}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\frac{1}{N} dN/d\ Q_{T_2}^{k=0.2}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.2}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_2}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$467 < P_T < 518$ GeV

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$Q_{T_2}^{k=0.2}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

$\frac{1}{N} dN/d\ Q_{T_2}^{k=0.2}$

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.2}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N\ dN/d\ Q_{T_2}^{k=0.3}$

Py8 Flat-unf

Py8 Flat-gen

$319 < P_T < 388$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.3}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

$\frac{1}{N} \, dN/d \, Q_{T_2}^{k=0.3}$

Py8 Flat-unf

Py8 Flat-gen

$388 < P_T < 467$ GeV

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.3}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$Q_{T_2}^{k=0.3}$

$\frac{1}{N} dN/d\, Q_{T_2}^{k=0.3}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$1/N\ dN/d\ Q_{T_2}^{k=0.3}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.3}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$P_T > 669$ GeV

$1/N\, dN/d\, Q_{T_2}^{k=0.3}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.3}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N\, dN/d\, Q_{T_2}^{k=0.4}$

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.4}$

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$185 < P_T < 251$ GeV

$\frac{1}{N} dN/d\ Q_{T_2}^{k=0.5}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$579 < P_T < 669$ GeV

$\frac{1}{N} dN/d\, Q_{T_2}^{k=0.5}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.5}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

P$_T$ > 669 GeV

$\frac{1}{N}\,dN/d\,Q_{T_2}^{k=0.5}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.5}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

$1/N \, dN/d \, Q_{T_2}^{k=0.6}$

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.6}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$251 < P_T < 319$ GeV

$\frac{1}{N} dN/d\ Q_{T_2}^{k=0.6}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=0.6}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary* 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

y-axis (top): $1/N \, dN/d \, Q_{T_2}^{k=0.8}$

y-axis (bottom): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_2}^{k=0.8}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

y-axis (upper): $1/N \, dN/d \, Q_{T_2}^{k=0.9}$

y-axis (lower): $\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

x-axis: $Q_{T_2}^{k=0.9}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$518 < P_T < 579$ GeV

CMS *Preliminary* — 41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$92 < P_T < 119$ GeV

$1/N \, dN/d \, Q_{T_2}^{k=1.0}$

$\dfrac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=1.0}$

CMS *Preliminary*

41.48 fb^{-1} (13 TeV)

Py8 Flat-unf

Py8 Flat-gen

$119 < P_T < 185$ GeV

$\frac{1}{N}\, dN/d\, Q_{T_2}^{k=1.0}$

$\frac{\text{Py8 Flat-gen}}{\text{Py8 Flat-unf}}$

$Q_{T_2}^{k=1.0}$

CMS *Preliminary*   41.48 fb^{-1} (13 TeV)