The LaTeX report

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1 Setup

1.1 Command history

```
ma5>import /afs/cern.ch/work/b/bkailasa/MCGens/madgraph/MG5_aMC_v2_6_7/mytestdir/-
bin/internal/ufomodel
ma5>import /afs/cern.ch/work/b/bkailasa/MCGens/madgraph/MG5_aMC_v2_6_7/mytestdir/-
Events/run_01/unweighted_events.lhe.gz as unweighted_events
ma5>define vl = 12 14 16
ma5>define vl  = -16 -14 -12
ma5>define invisible = ve ve  vm vm  vt vt  vl vl
ma5>set main.graphic_render = root
ma5>plot THT 40 0 500 [logY]
ma5>plot MET 40 0 500 [logY]
ma5>plot SQRTS 40 0 500 [logY]
ma5>plot PT(t [1]) 40 0 500 [logY]
ma5>plot ETA(t [1]) 40 -10 10 [logY]
ma5>plot PT(t[1]) 40 0 500 [logY]
ma5>plot ETA(t[1]) 40 -10 10 [logY]
ma5>plot M(t [1] t[1]) 40 0 500 [logY ]
ma5>plot DELTAR(t [1],t[1]) 40 0 10 [logY ]
ma5>submit /afs/cern.ch/work/b/bkailasa/MCGens/madgraph/MG5_aMC_v2_6_7/mytestdir/-
MA5_PARTON_ANALYSIS_analysis1
```

1.2 Configuration

- MadAnalysis version 1.8.31 (2019/11/06).
- Histograms given for an integrated luminosity of 10fb^{-1}.

2 Datasets

2.1 unweighted_events

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 1603210+/- 2748 events.
- Ratio (event weight): 160 - warning: please generate more events (weight larger than 1)!

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
mytestdir/Events/run_01/-unweighted_events.lhe.gz	10000	160 @ 0.17%	0.0

3 Histos and cuts

3.1 Histogram 1

*** Plot: THT**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	0.0	0.0	0.0	0.0

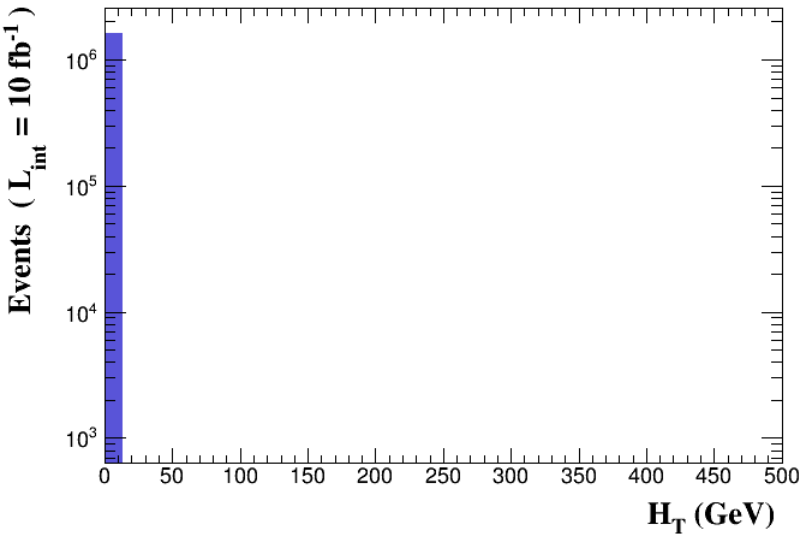

Figure 1.

3.2 Histogram 2

*** Plot: MET**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	0.0	0.0	0.0	0.0

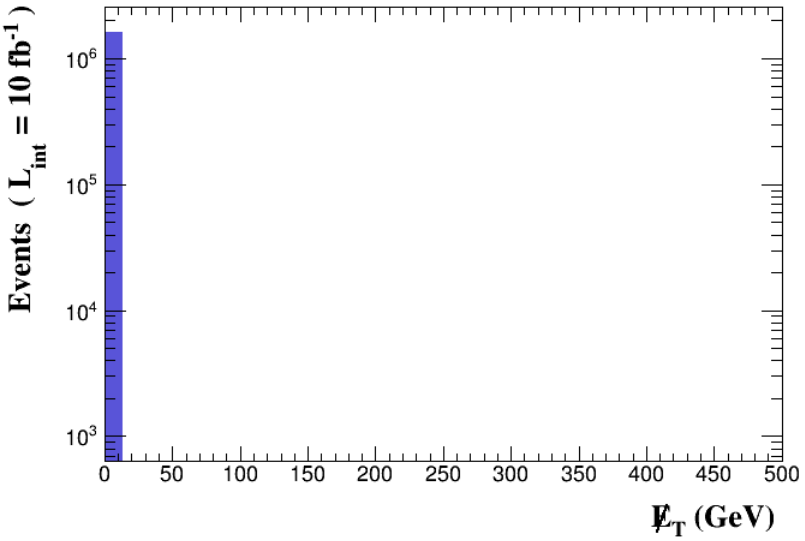

Figure 2.

3.3 Histogram 3

*** Plot: SQRTS**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	503.458	155.3	0.0	36.88

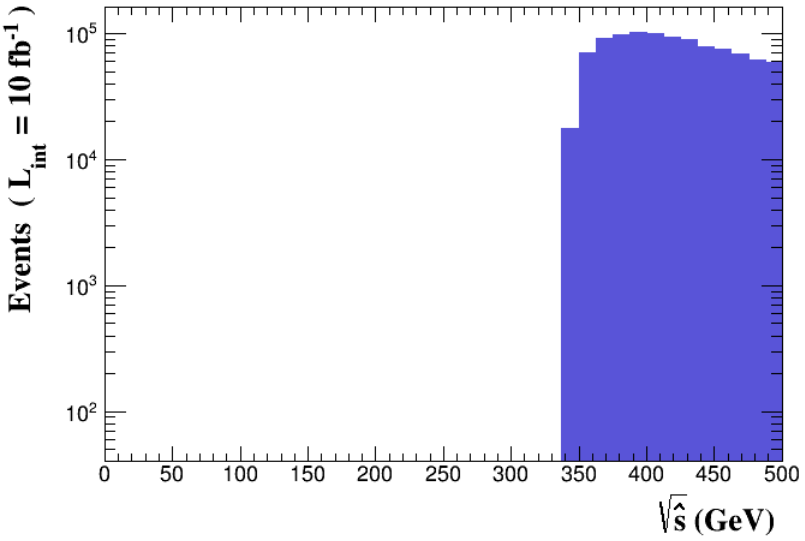

Figure 3.

3.4 Histogram 4

*** Plot: PT (t [1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	113.615	72.26	0.0	0.12

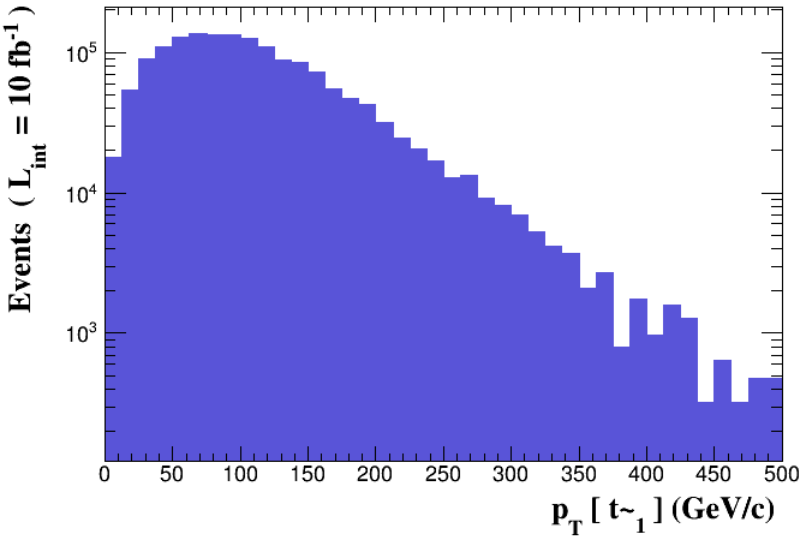

Figure 4.

3.5 Histogram 5

*** Plot: ETA (t [1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	-6.23805e-06	1.794	0.0	0.0

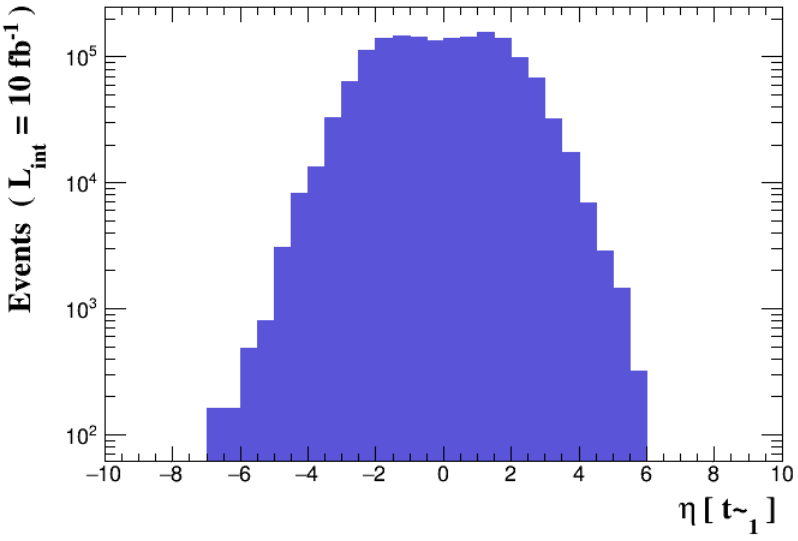

Figure 5.

3.6 Histogram 6

*** Plot: PT (t[1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	113.615	72.26	0.0	0.12

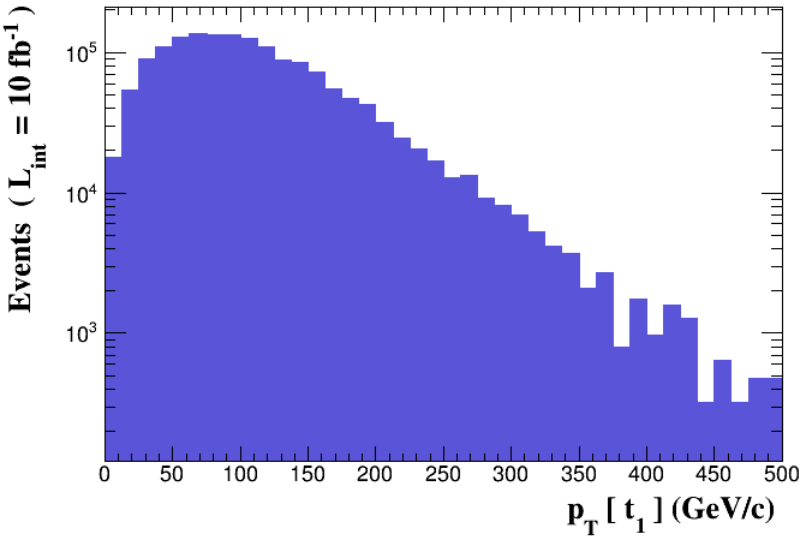

Figure 6.

3.7 Histogram 7

*** Plot: ETA (t[1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	-0.00134622	1.818	0.0	0.0

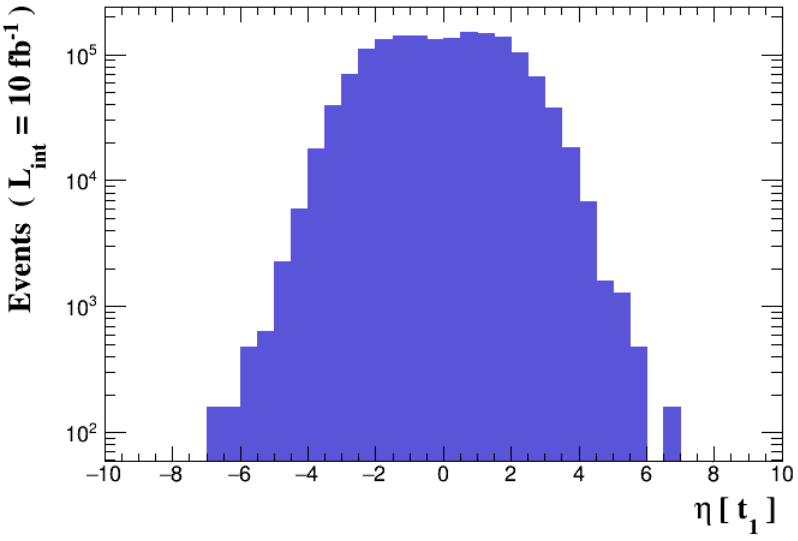

Figure 7.

3.8 Histogram 8

*** Plot: M (t[1] t [1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	503.458	155.3	0.0	36.88

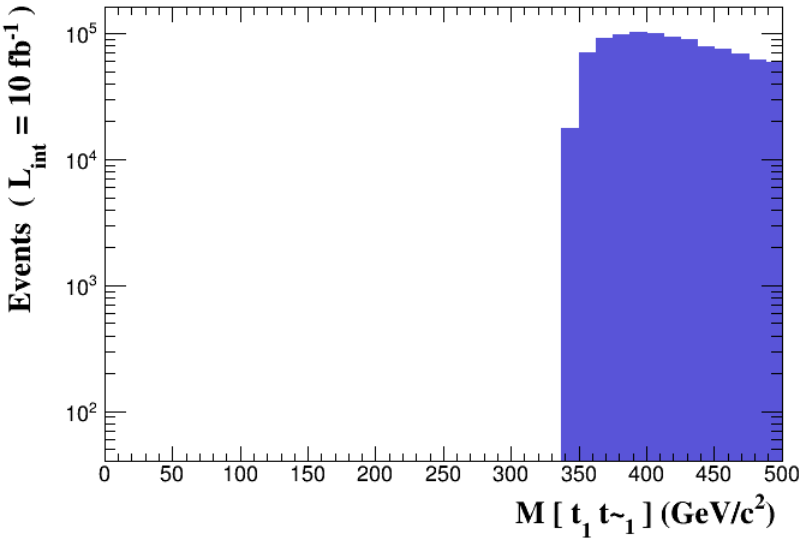

Figure 8.

3.9 Histogram 9

*** Plot: DELTAR (t [1] , t[1])**

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
unweighted_eve	1603210	1.0	3.59805	0.6891	0.0	0.02

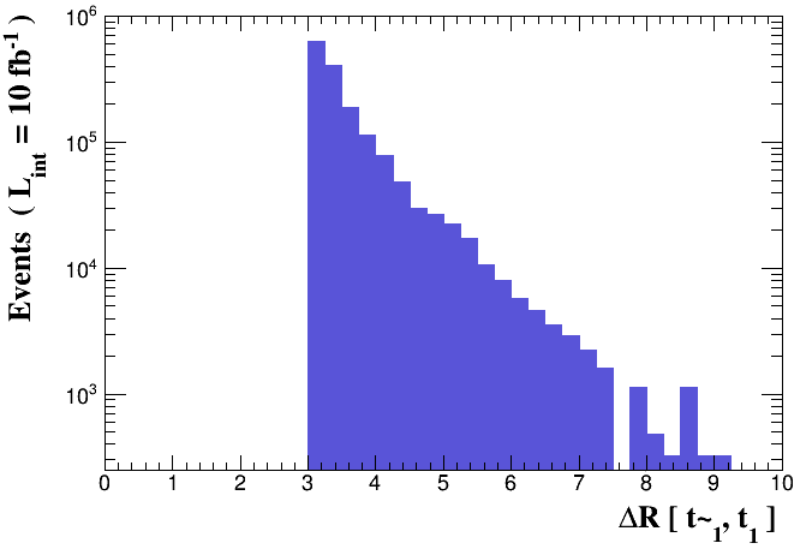

Figure 9.