The LaTeX report

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1 Setup

1.1 Command history

```
ma5>
ma5>
ma5>
ma5>!printf "* Define Jet Clustering:  "
ma5>set main.fastsim.package = fastjet
ma5>set main.fastsim.algorithm = antikt
ma5>set main.fastsim.radius = 0.4
ma5>set main.fastsim.ptmin = 20
ma5>!printf "we will define some signal regions.  For more details please seehttps:/-
/twiki.cern.ch/twiki/pub/LHCPhysics/LHCHWGFiducialAndSTXS/simplifiedXS_VH_1_2.pdf"
ma5>define_region NoCuts
ma5>define_region NJ0_0_75
ma5>define_region NJ1_0_75
ma5>define_region NJ2_0_75
ma5>define_region NJ0_75_150
ma5>define_region NJ1_75_150
ma5>define_region NJ2_75_150
ma5>define_region NJ0_150_250
ma5>define_region NJ1_150_250
ma5>define_region NJ2_150_250
ma5>define_region NJ2_250_400
ma5>define_region NJ1_250_400
ma5>define_region NJ0_250_400
ma5>define_region NJ0_400_inf
ma5>define_region NJ1_400_inf
ma5>define_region NJ2_400_inf
ma5>!printf "* Define cutflow.  Syntax:  select <CUT> {<REGION>} "
ma5>select N (j) == 0 {NJ0_0_75 NJ0_75_150 NJ0_150_250 NJ0_250_400 NJ0_400_inf}
ma5>select N (j) == 1 {NJ1_0_75 NJ1_75_150 NJ1_150_250 NJ1_250_400 NJ1_400_inf}
ma5>select N (j) >= 2 {NJ2_0_75 NJ2_75_150 NJ2_150_250 NJ2_250_400 NJ2_400_inf}
ma5>plot N (j) 10 0 10 {NoCuts} [logY]
ma5>plot N (j) 10 0 10 {NJ1_0_75 NJ1_75_150 NJ1_150_250 NJ1_250_400 NJ1_400_inf} [logY]
ma5>plot N (j) 10 0 10 {NJ2_0_75 NJ2_75_150 NJ2_150_250 NJ2_250_400 NJ2_400_inf} [logY]
ma5>select vPT (l[1] l[2]) > 0 and vPT(l[1] l[2]) <= 75 {NJ0_0_75 NJ1_0_75 NJ2_0_75}
ma5>select vPT (l[1] l[2]) > 75 and vPT (l[1] l[2]) <= 150 {NJ0_75_150 NJ1_75_150 NJ2_75_150}
ma5>select vPT (l[1] l[2]) > 150 and vPT (l[1] l[2]) <= 250 {NJ0_150_250 NJ1_150_250
NJ2_150_250}
ma5>select vPT (l[1] l[2]) > 250 and vPT (l[1] l[2]) <= 400 {NJ2_250_400 NJ1_250_400
NJ0_250_400}
ma5>select vPT (l[1] l[2]) > 400 {NJ0_400_inf NJ1_400_inf NJ2_400_inf}
ma5>!printf "* Define histograms.  Syntax:  plot <OBS> (<PARTICLES>) <NBINS> <XMIN>
<XMAX> {<REGION>} [<OPT>]"
ma5>plot vPT (l[1] l[2]) 50 0 500 {NoCuts} [logY]
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ0_0_75} [logY]
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ1_0_75} [logY]
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ2_0_75} [logY]
```

```
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ0_75_150} [logY]
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ2_150_250} [logY]
ma5>plot vPT (l[1] l[2]) 50 0 500 {NJ0_250_400} [logY]
ma5>plot M (l[1] l[2] b[1] b[2]) 50 0 500 {NoCuts} [logY]
ma5>plot M (l[1] l[2] b[1] b[2]) 50 0 500 {NJ2_0_75} [logY]
ma5>plot M (l[1] l[2] b[1] b[2]) 50 0 500 {NJ2_150_250} [logY]
ma5>plot M (l[1] l[2] b[1] b[2]) 50 0 500 {NJ2_250_400} [logY]
ma5>plot M (l[1] l[2] b[1] b[2]) 50 0 500 {NJ2_400_inf} [logY]
ma5>!printf "you need to import your sample by typingimport /PATH/TO/MY/SAMPLE/MYSAMPLE.hepmc.gz
as MY_FANCY_SMP_NAMEthat 'MY_FANCY_SMP_NAME' is a tag which separates your samples,
you can add multiple samples with different tags"
ma5>import pp_hee_SM/Events/run_01/*hepmc.gz as SM
ma5>submit SM_reco_analysis
```

1.2 Configuration

- MadAnalysis version 1.9.19 (2021/03/24).
- Histograms are not scaled.

2 Datasets

2.1 sm

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 129+/- 0 events.
- Ratio (event weight): 0.013 .

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
pp_hee_SM/Events/run_01/-tag_1_pythia8_events.hepmc.gz	10000	0.0129	0.0

3 Histos and cuts

3.1 Cut 1

*** Cut: select N (j) = 0.0**
*** Regions:** NJ0_0_75 , NJ0_75_150 , NJ0_150_250 , NJ0_250_400 , NJ0_400_inf

Region: "NJ0_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000107 +/- 0.010310	0.0128 +/- 0.0103	0.0083 +/- 0.7983	0.0083 +/- 0.7983

Region: "NJ0_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000107 +/- 0.010310	0.0128 +/- 0.0103	0.0083 +/- 0.7983	0.0083 +/- 0.7983

Region: "NJ0_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000107 +/- 0.010310	0.0128 +/- 0.0103	0.0083 +/- 0.7983	0.0083 +/- 0.7983

Region: "NJ0_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000107 +/- 0.010310	0.0128 +/- 0.0103	0.0083 +/- 0.7983	0.0083 +/- 0.7983

Region: "NJ0_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000107 +/- 0.010310	0.0128 +/- 0.0103	0.0083 +/- 0.7983	0.0083 +/- 0.7983

3.2 Cut 2

*** Cut: select N (j) = 1.0**
*** Regions:** NJ1_0_75 , NJ1_75_150 , NJ1_150_250 , NJ1_250_400 , NJ1_400_inf

Region: "NJ1_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00165 +/- 0.03790	0.0113 +/- 0.0379	0.128 +/- 2.935	0.128 +/- 2.935

Region: "NJ1_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00165 +/- 0.03790	0.0113 +/- 0.0379	0.128 +/- 2.935	0.128 +/- 2.935

Region: "NJ1_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00165 +/- 0.03790	0.0113 +/- 0.0379	0.128 +/- 2.935	0.128 +/- 2.935

Region: "NJ1_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00165 +/- 0.03790	0.0113 +/- 0.0379	0.128 +/- 2.935	0.128 +/- 2.935

Region: "NJ1_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00165 +/- 0.03790	0.0113 +/- 0.0379	0.128 +/- 2.935	0.128 +/- 2.935

3.3 Cut 3

*** Cut: select N (j) >= 2.0**
*** Regions:** NJ2_0_75 , NJ2_75_150 , NJ2_150_250 , NJ2_250_400 , NJ2_400_inf

Region: "NJ2_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0112 +/- 0.0389	0.00175 +/- 0.03893	0.864 +/- 3.015	0.864 +/- 3.015

Region: "NJ2_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0112 +/- 0.0389	0.00175 +/- 0.03893	0.864 +/- 3.015	0.864 +/- 3.015

Region: "NJ2_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0112 +/- 0.0389	0.00175 +/- 0.03893	0.864 +/- 3.015	0.864 +/- 3.015

Region: "NJ2_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0112 +/- 0.0389	0.00175 +/- 0.03893	0.864 +/- 3.015	0.864 +/- 3.015

Region: "NJ2_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0112 +/- 0.0389	0.00175 +/- 0.03893	0.864 +/- 3.015	0.864 +/- 3.015

3.4 Histogram 1

*** Plot:** N (j)
*** Regions:** NoCuts

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.0129	1.0	2.4251	1.028	0.0	0.01

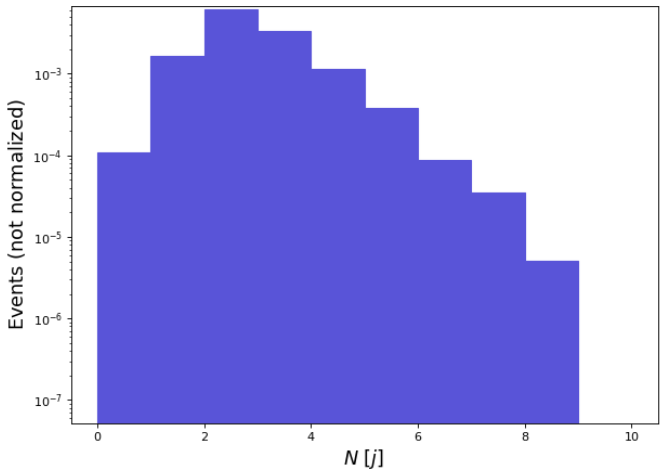


Figure 1.

3.5 Histogram 2

*** Plot: N (j)**
*** Regions:** NJ1_0_75 , NJ1_75_150 , NJ1_150_250 , NJ1_250_400 , NJ1_400_inf

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.00165	1.0	1.0	0.0	0.0	0.0

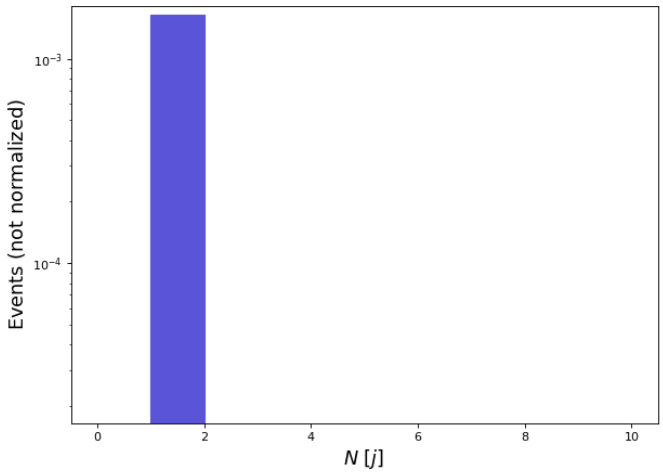


Figure 2.

3.6 Histogram 3

*** Plot: N (j)**
*** Regions:** NJ2_0_75 , NJ2_75_150 , NJ2_150_250 , NJ2_250_400 , NJ2_400_inf

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.0112	1.0	2.65864	0.9007	0.0	0.01157

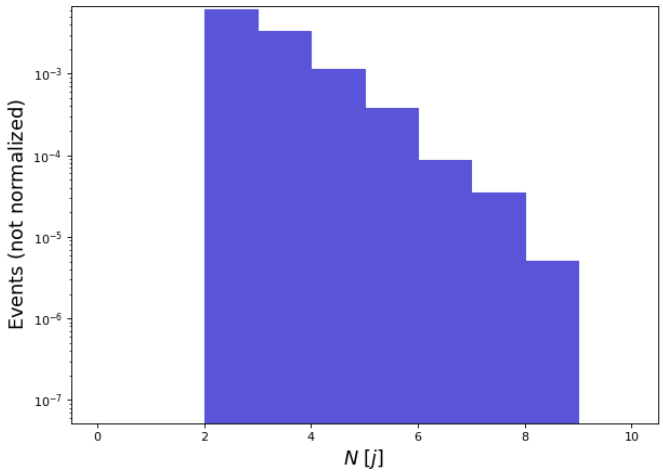


Figure 3.

3.7 Cut 4

*** Cut: select 0.0 > PT <= 75.0**
*** Regions:** NJ0_0_75 , NJ1_0_75 , NJ2_0_75

Region: "NJ0_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000106 +/- 0.010248	1.29e-06 +/- 1.14e-03	0.988 +/- 10.538	0.0082 +/- 0.7936

Region: "NJ1_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000867 +/- 0.028433	0.00078 +/- 0.02707	0.526 +/- 12.305	0.0671 +/- 2.2016

Region: "NJ2_0_75"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0055 +/- 0.0562	0.00566 +/- 0.05638	0.493 +/- 4.732	0.426 +/- 4.352

3.8 Cut 5

*** Cut: select 75.0 > PT <= 150.0**
*** Regions:** NJ0_75_150 , NJ1_75_150 , NJ2_75_150

Region: "NJ0_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	1.29e-06 +/- 1.14e-03	0.000106 +/- 0.010248	0.012 +/- 10.538	0.0001 +/- 0.0880

Region: "NJ1_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000621 +/- 0.024317	0.00103 +/- 0.03072	0.377 +/- 11.945	0.0481 +/- 1.8829

Region: "NJ2_75_150"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00384 +/- 0.05194	0.00732 +/- 0.05631	0.344 +/- 4.496	0.297 +/- 4.022

3.9 Cut 6

*** Cut: select 150.0 > PT <= 250.0**
*** Regions:** NJ0_150_250 , NJ1_150_250 , NJ2_150_250

Region: "NJ0_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0 +/- 0.0	0.000107 +/- 0.010310	0.0 +/- 0.0	0.0 +/- 0.0

Region: "NJ1_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000134 +/- 0.011529	0.00151 +/- 0.03654	0.0816 +/- 6.7451	0.0104 +/- 0.8927

Region: "NJ2_150_250"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.00139 +/- 0.03526	0.00977 +/- 0.04879	0.125 +/- 3.129	0.108 +/- 2.730

3.10 Cut 7

*** Cut: select 250.0 > PT <= 400.0**
*** Regions:** NJ2_250_400 , NJ1_250_400 , NJ0_250_400

Region: "NJ2_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.000377 +/- 0.019134	0.0108 +/- 0.0422	0.0338 +/- 1.7103	0.0292 +/- 1.4815

Region: "NJ1_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	2.20e-05 +/- 4.68e-03	0.00162 +/- 0.03769	0.0133 +/- 2.8266	0.0017 +/- 0.3625

Region: "NJ0_250_400"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0 +/- 0.0	0.000107 +/- 0.010310	0.0 +/- 0.0	0.0 +/- 0.0

3.11 Cut 8

*** Cut: select PT (l[1] l[2]) > 400.0**
*** Regions:** NJ0_400_inf , NJ1_400_inf , NJ2_400_inf

Region: "NJ0_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	0.0 +/- 0.0	0.000107 +/- 0.010310	0.0 +/- 0.0	0.0 +/- 0.0

Region: "NJ1_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	2.58e-06 +/- 1.61e-03	0.00164 +/- 0.03788	0.00157 +/- 0.97527	0.0002 +/- 0.1244

Region: "NJ2_400_inf"				
Dataset	Events kept: K	Rejected events: R	Efficiency: K / (K + R)	Cumul. efficiency: K / Initial
sm	4.78e-05 +/- 6.90e-03	0.0111 +/- 0.0394	0.00428 +/- 0.61804	0.0037 +/- 0.5343

3.12 Histogram 4

*** Plot: PT (l[1] l[2])**
*** Regions:** NoCuts

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.0129	1.0	91.777	68.05	0.0	0.05

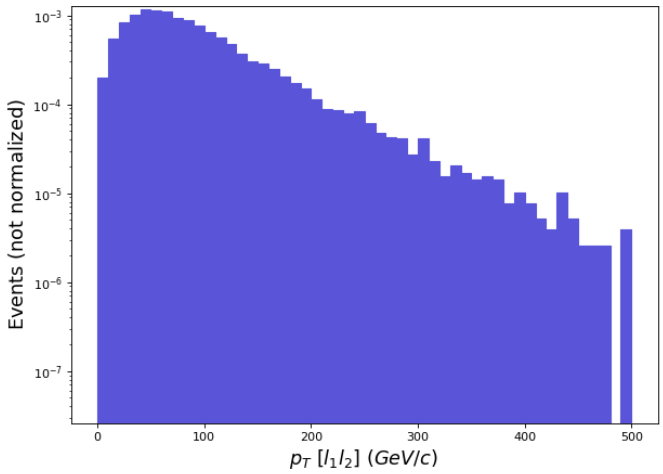


Figure 4.

3.13 Histogram 5

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ0_0_75

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.000106	1.0	29.8723	13.69	0.0	0.0

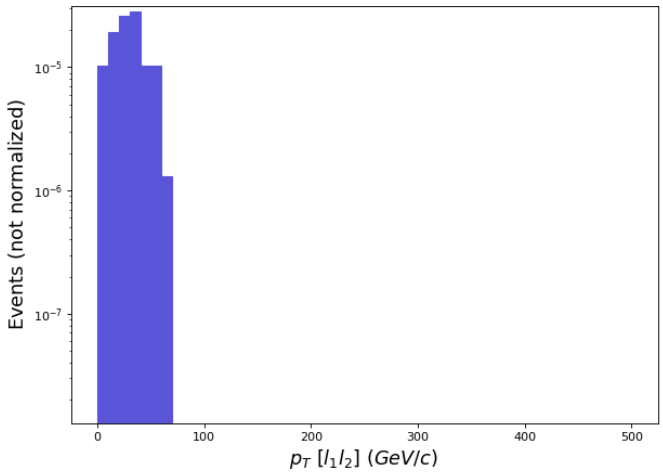


Figure 5.

3.14 Histogram 6

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ1_0_75

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.000867	1.0	45.6298	17.24	0.0	0.0

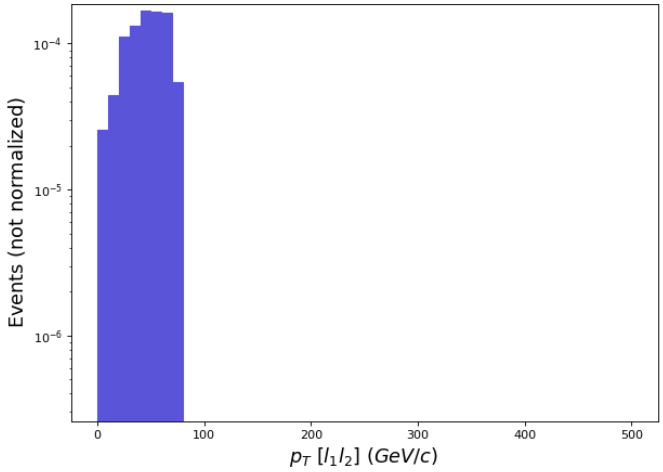


Figure 6.

3.15 Histogram 7

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ2_0_75

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.0055	1.0	44.4735	18.43	0.0	0.0

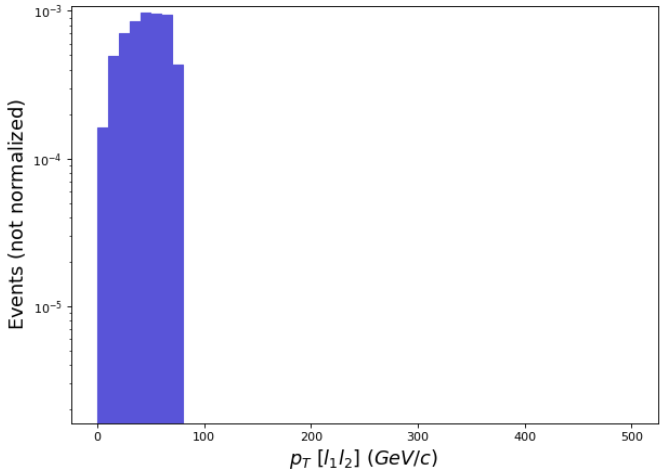


Figure 7.

3.16 Histogram 8

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ0_75_150

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	1.29e-06	1.0	86.2792	0.03601	0.0	0.0

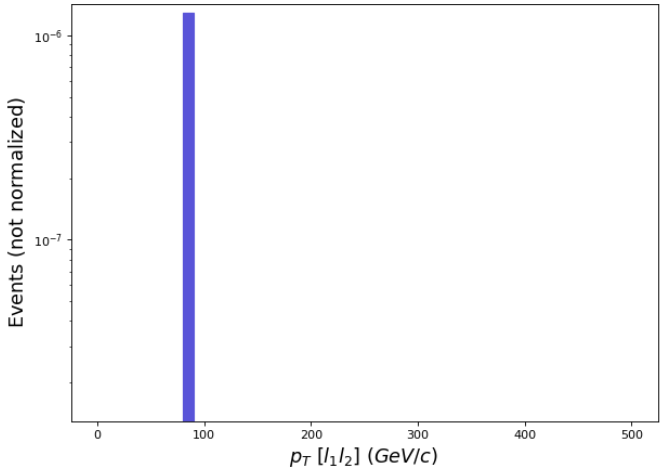


Figure 8.

3.17 Histogram 9

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ2_150_250

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.00139	1.0	187.287	27.85	0.0	0.0

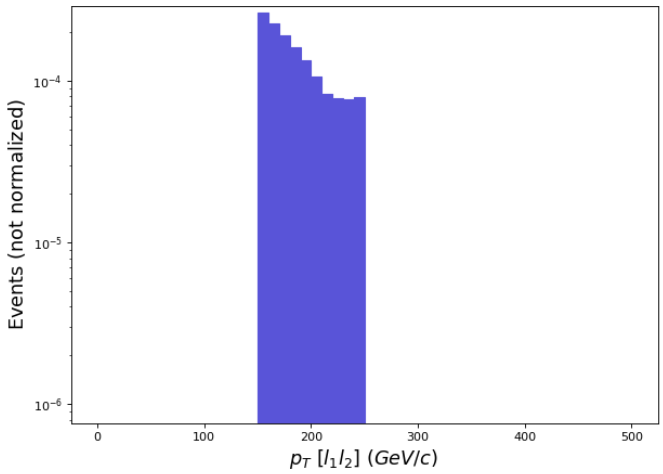


Figure 9.

3.18 Histogram 10

*** Plot: PT (l[1] l[2])**
*** Regions:** NJ0_250_400

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0

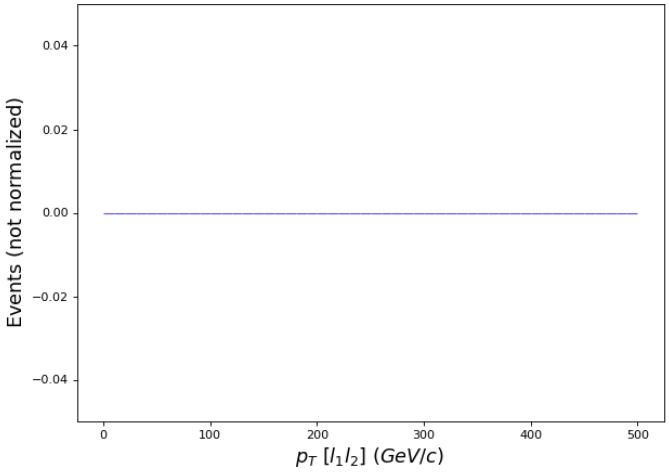


Figure 10.

3.19 Histogram 11

*** Plot: M (b[1] b[2] l[1] l[2])**
*** Regions:** NoCuts

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.00893	1.0	291.516	121.7	0.0	6.245

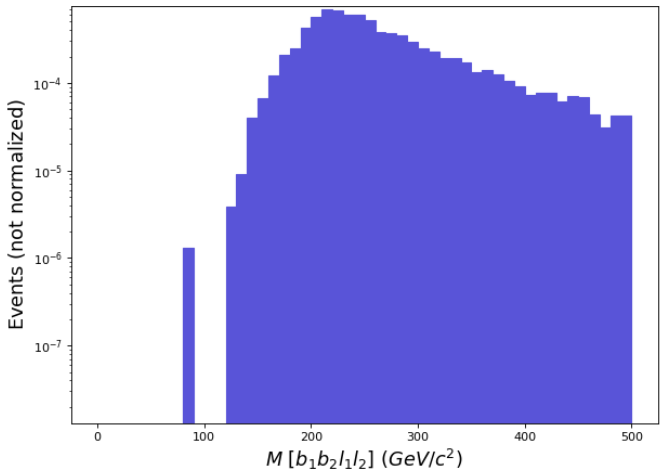


Figure 11.

3.20 Histogram 12

*** Plot: M (b[1] b[2] l[1] l[2])**
*** Regions:** NJ2_0_75

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.00446	1.0	227.022	47.58	0.0	0.3767

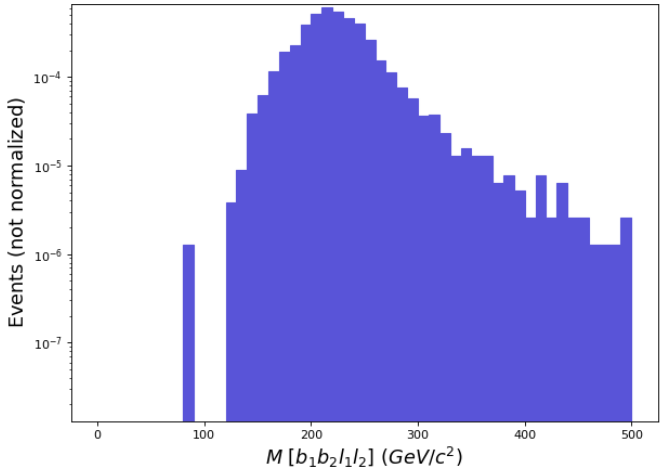


Figure 12.

3.21 Histogram 13

*** Plot: M (b[1] b[2] l[1] l[2])**
*** Regions:** NJ2_150_250

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.00112	1.0	422.05	93.48	0.0	18.53

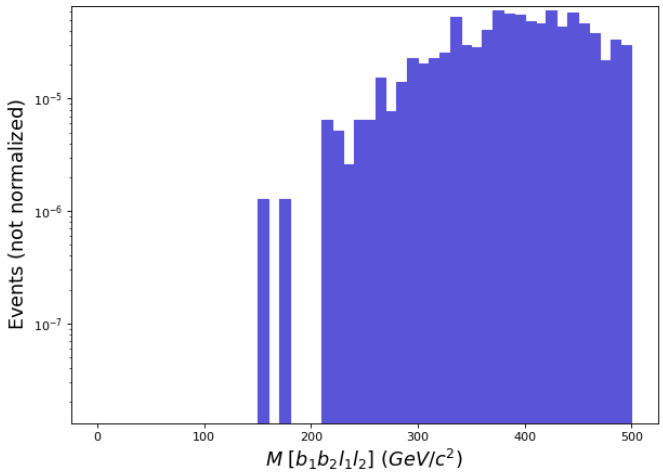


Figure 13.

3.22 Histogram 14

*** Plot: M (b[1] b[2] l[1] l[2])**
*** Regions:** NJ2_250_400

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	0.000315	1.0	633.21	165.6	0.0	85.25

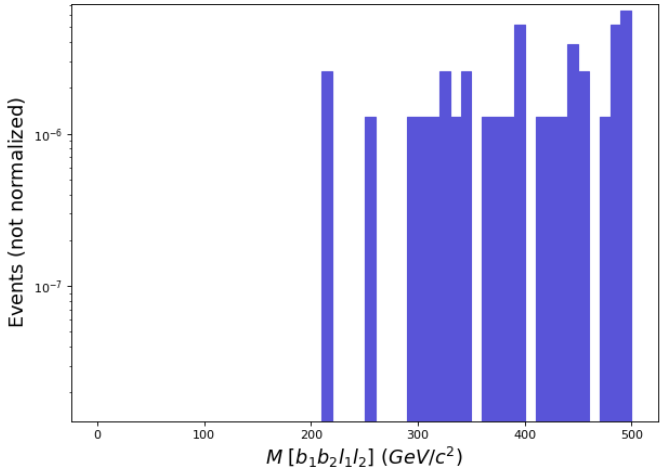


Figure 14.

3.23 Histogram 15

*** Plot: M (b[1] b[2] l[1] l[2])**
*** Regions:** NJ2_400_inf

Dataset	Integral	Entries per event	Mean	RMS	% underflow	% overflow
sm	4.13e-05	1.0	934.078	194.3	0.0	100.0

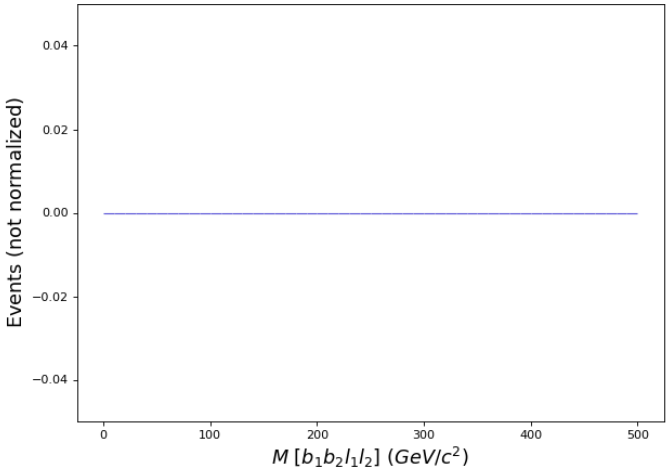


Figure 15.

4 Summary

4.1 Cut-flow charts

- How to compare signal (S) and background (B): S/sqrt(S+B) .
- Object definition selections are indicated in cyan.
- Reject and select are indicated by 'REJ' and 'SEL' respectively

Region: "NoCuts"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		

Region: "NJ0_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 0.0	0.000107 +/- 0.010310		
SEL: 0.0 > PT <= 75.0	0.000106 +/- 0.010248		

Region: "NJ1_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 1.0	0.00165 +/- 0.03790		
SEL: 0.0 > PT <= 75.0	0.000867 +/- 0.028433		

Region: "NJ2_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) >= 2.0	0.0112 +/- 0.0389		
SEL: 0.0 > PT <= 75.0	0.0055 +/- 0.0562		

Region: "NJ0_75_150"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 0.0	0.000107 +/- 0.010310		
SEL: 75.0 > PT <= 150.0	1.29e-06 +/- 1.14e-03		

Region: "NJ1_75_150"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 1.0	0.00165 +/- 0.03790		
SEL: 75.0 > PT <= 150.0	0.000621 +/- 0.024317		

Region: "NJ2_75_150"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) >= 2.0	0.0112 +/- 0.0389		
SEL: 75.0 > PT <= 150.0	0.00384 +/- 0.05194		

Region: "NJ0_150_250"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 0.0	0.000107 +/- 0.010310		
SEL: 150.0 > PT <= 250.0	0.0 +/- 0.0		

Region: "NJ1_150_250"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 1.0	0.00165 +/- 0.03790		
SEL: 150.0 > PT <= 250.0	0.000134 +/- 0.011529		

Region: "NJ2_150_250"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) >= 2.0	0.0112 +/- 0.0389		
SEL: 150.0 > PT <= 250.0	0.00139 +/- 0.03526		

Region: "NJ2_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) >= 2.0	0.0112 +/- 0.0389		
SEL: 250.0 > PT <= 400.0	0.000377 +/- 0.019134		

Region: "NJ1_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 1.0	0.00165 +/- 0.03790		
SEL: 250.0 > PT <= 400.0	2.20e-05 +/- 4.68e-03		

Region: "NJ0_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 0.0	0.000107 +/- 0.010310		
SEL: 250.0 > PT <= 400.0	0.0 +/- 0.0		

Region: "NJ0_400_inf"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 0.0	0.000107 +/- 0.010310		
SEL: PT (l[1] l[2]) > 400.0	0.0 +/- 0.0		

Region: "NJ1_400_inf"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) = 1.0	0.00165 +/- 0.03790		
SEL: PT (l[1] l[2]) > 400.0	2.58e-06 +/- 1.61e-03		

Region: "NJ2_400_inf"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.0129		
SEL: N (j) >= 2.0	0.0112 +/- 0.0389		
SEL: PT (l[1] l[2]) > 400.0	4.78e-05 +/- 6.90e-03		