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>import pp_hee_cHB_square/Events/run_01/*hepmc.gz as cHB_square
ma5>import pp_hee_cHu_square/Events/run_01/*hepmc.gz as cHu_square
ma5>import pp_hee_cHu_int/Events/run_01/*hepmc.gz as cHu_int
ma5>import pp_hee_cHB_int/Events/run_01/*hepmc.gz as cHB_int
ma5>submit SMEFT_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

2.2 chb_square

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 4+/- 0 events.
- Ratio (event weight): 0.0004 .

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
pp_hee_cHB_square/-Events/run_01/-tag_1_pythia8_events.hepmc.gz	10000	0.000468	0.0

2.3 chu_square

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 152+/- 0 events.
- Ratio (event weight): 0.015 .

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
pp_hee_cHu_square/-Events/run_01/-tag_1_pythia8_events.hepmc.gz	10000	0.0153	0.0

2.4 chu_int

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 53+/- 0 events.
- Ratio (event weight): 0.0053 .

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
pp_hee_cHu_int/-Events/run_01/-tag_1_pythia8_events.hepmc.gz	10000	0.00538	0.0

2.5 chb_int

- Sample consisting of: signal events.
- Generated events: 10000 events.
- Normalization to the luminosity: 10+/- 0 events.
- Ratio (event weight): 0.001 .

Path to the event file	Nr. of events	Cross section (pb)	Negative wgts (%)
pp_hee_cHB_int/-Events/run_01/-tag_1_pythia8_events.hepmc.gz	10000	0.00102	22

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
chb_square	1.78e-06 +/- 1.33e-03	0.000466 +/- 0.001331	0.0038 +/- 2.8440	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.01524 +/- 0.00494	0.0016 +/- 0.3235	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.00536 +/- 0.00366	0.0025 +/- 0.6811	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.00192 +/- 0.00348	0.0063 +/- 1.8012	0.0063 +/- 1.8012

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
chb_square	1.78e-06 +/- 1.33e-03	0.000466 +/- 0.001331	0.0038 +/- 2.8440	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.01524 +/- 0.00494	0.0016 +/- 0.3235	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.00536 +/- 0.00366	0.0025 +/- 0.6811	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.00192 +/- 0.00348	0.0063 +/- 1.8012	0.0063 +/- 1.8012

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
chb_square	1.78e-06 +/- 1.33e-03	0.000466 +/- 0.001331	0.0038 +/- 2.8440	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.01524 +/- 0.00494	0.0016 +/- 0.3235	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.00536 +/- 0.00366	0.0025 +/- 0.6811	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.00192 +/- 0.00348	0.0063 +/- 1.8012	0.0063 +/- 1.8012

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
chb_square	1.78e-06 +/- 1.33e-03	0.000466 +/- 0.001331	0.0038 +/- 2.8440	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.01524 +/- 0.00494	0.0016 +/- 0.3235	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.00536 +/- 0.00366	0.0025 +/- 0.6811	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.00192 +/- 0.00348	0.0063 +/- 1.8012	0.0063 +/- 1.8012

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
chb_square	1.78e-06 +/- 1.33e-03	0.000466 +/- 0.001331	0.0038 +/- 2.8440	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.01524 +/- 0.00494	0.0016 +/- 0.3235	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.00536 +/- 0.00366	0.0025 +/- 0.6811	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.00192 +/- 0.00348	0.0063 +/- 1.8012	0.0063 +/- 1.8012

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
chb_square	5.67e-05 +/- 7.06e-03	0.000411 +/- 0.007060	0.121 +/- 15.085	0.121 +/- 15.085
chu_square	0.00151 +/- 0.03689	0.0138 +/- 0.0369	0.0989 +/- 2.4160	0.0989 +/- 2.4160
chu_int	0.000667 +/- 0.024173	0.00471 +/- 0.02417	0.124 +/- 4.497	0.124 +/- 4.497
chb_int	0.000251 +/- 0.014782	0.00168 +/- 0.01478	0.13 +/- 7.66	0.13 +/- 7.66

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
chb_square	5.67e-05 +/- 7.06e-03	0.000411 +/- 0.007060	0.121 +/- 15.085	0.121 +/- 15.085
chu_square	0.00151 +/- 0.03689	0.0138 +/- 0.0369	0.0989 +/- 2.4160	0.0989 +/- 2.4160
chu_int	0.000667 +/- 0.024173	0.00471 +/- 0.02417	0.124 +/- 4.497	0.124 +/- 4.497
chb_int	0.000251 +/- 0.014782	0.00168 +/- 0.01478	0.13 +/- 7.66	0.13 +/- 7.66

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
chb_square	5.67e-05 +/- 7.06e-03	0.000411 +/- 0.007060	0.121 +/- 15.085	0.121 +/- 15.085
chu_square	0.00151 +/- 0.03689	0.0138 +/- 0.0369	0.0989 +/- 2.4160	0.0989 +/- 2.4160
chu_int	0.000667 +/- 0.024173	0.00471 +/- 0.02417	0.124 +/- 4.497	0.124 +/- 4.497
chb_int	0.000251 +/- 0.014782	0.00168 +/- 0.01478	0.13 +/- 7.66	0.13 +/- 7.66

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
chb_square	5.67e-05 +/- 7.06e-03	0.000411 +/- 0.007060	0.121 +/- 15.085	0.121 +/- 15.085
chu_square	0.00151 +/- 0.03689	0.0138 +/- 0.0369	0.0989 +/- 2.4160	0.0989 +/- 2.4160
chu_int	0.000667 +/- 0.024173	0.00471 +/- 0.02417	0.124 +/- 4.497	0.124 +/- 4.497
chb_int	0.000251 +/- 0.014782	0.00168 +/- 0.01478	0.13 +/- 7.66	0.13 +/- 7.66

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
chb_square	5.67e-05 +/- 7.06e-03	0.000411 +/- 0.007060	0.121 +/- 15.085	0.121 +/- 15.085
chu_square	0.00151 +/- 0.03689	0.0138 +/- 0.0369	0.0989 +/- 2.4160	0.0989 +/- 2.4160
chu_int	0.000667 +/- 0.024173	0.00471 +/- 0.02417	0.124 +/- 4.497	0.124 +/- 4.497
chb_int	0.000251 +/- 0.014782	0.00168 +/- 0.01478	0.13 +/- 7.66	0.13 +/- 7.66

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
chb_square	0.00041 +/- 0.00715	5.85e-05 +/- 7.15e-03	0.875 +/- 15.287	0.875 +/- 15.287
chu_square	0.0137 +/- 0.0372	0.00153 +/- 0.03715	0.899 +/- 2.433	0.899 +/- 2.433
chu_int	0.0047 +/- 0.0244	0.000681 +/- 0.024381	0.873 +/- 4.535	0.873 +/- 4.535
chb_int	0.00167 +/- 0.01508	0.000263 +/- 0.015081	0.864 +/- 7.816	0.864 +/- 7.816

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
chb_square	0.00041 +/- 0.00715	5.85e-05 +/- 7.15e-03	0.875 +/- 15.287	0.875 +/- 15.287
chu_square	0.0137 +/- 0.0372	0.00153 +/- 0.03715	0.899 +/- 2.433	0.899 +/- 2.433
chu_int	0.0047 +/- 0.0244	0.000681 +/- 0.024381	0.873 +/- 4.535	0.873 +/- 4.535
chb_int	0.00167 +/- 0.01508	0.000263 +/- 0.015081	0.864 +/- 7.816	0.864 +/- 7.816

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
chb_square	0.00041 +/- 0.00715	5.85e-05 +/- 7.15e-03	0.875 +/- 15.287	0.875 +/- 15.287
chu_square	0.0137 +/- 0.0372	0.00153 +/- 0.03715	0.899 +/- 2.433	0.899 +/- 2.433
chu_int	0.0047 +/- 0.0244	0.000681 +/- 0.024381	0.873 +/- 4.535	0.873 +/- 4.535
chb_int	0.00167 +/- 0.01508	0.000263 +/- 0.015081	0.864 +/- 7.816	0.864 +/- 7.816

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
chb_square	0.00041 +/- 0.00715	5.85e-05 +/- 7.15e-03	0.875 +/- 15.287	0.875 +/- 15.287
chu_square	0.0137 +/- 0.0372	0.00153 +/- 0.03715	0.899 +/- 2.433	0.899 +/- 2.433
chu_int	0.0047 +/- 0.0244	0.000681 +/- 0.024381	0.873 +/- 4.535	0.873 +/- 4.535
chb_int	0.00167 +/- 0.01508	0.000263 +/- 0.015081	0.864 +/- 7.816	0.864 +/- 7.816

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
chb_square	0.00041 +/- 0.00715	5.85e-05 +/- 7.15e-03	0.875 +/- 15.287	0.875 +/- 15.287
chu_square	0.0137 +/- 0.0372	0.00153 +/- 0.03715	0.899 +/- 2.433	0.899 +/- 2.433
chu_int	0.0047 +/- 0.0244	0.000681 +/- 0.024381	0.873 +/- 4.535	0.873 +/- 4.535
chb_int	0.00167 +/- 0.01508	0.000263 +/- 0.015081	0.864 +/- 7.816	0.864 +/- 7.816

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
chb_square	0.000468	1.0	2.5719	1.115	0.0	0.03
chu_square	0.0153	1.0	2.6787	1.137	0.0	0.0
chu_int	0.00538	1.0	2.5108	1.062	0.0	0.01
chb_int	0.00107	1.0	2.41715	1.023	0.0	0.0

Warnings related to negative event-weights:
dataset=chb_int -> bin 9 has a negative content : -1.92958e-07. This value is set to zero

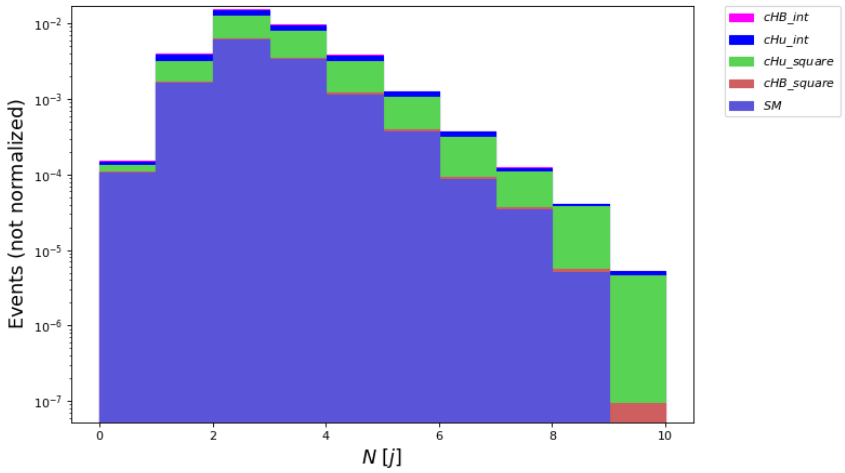


Figure 1.

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
chb_square	5.67e-05	1.0	1.0	0.0	0.0	0.0
chu_square	0.00151	1.0	1.0	0.0	0.0	0.0
chu_int	0.000667	1.0	1.0	0.0	0.0	0.0
chb_int	0.000143	1.0	1.0	0.0	0.0	0.0

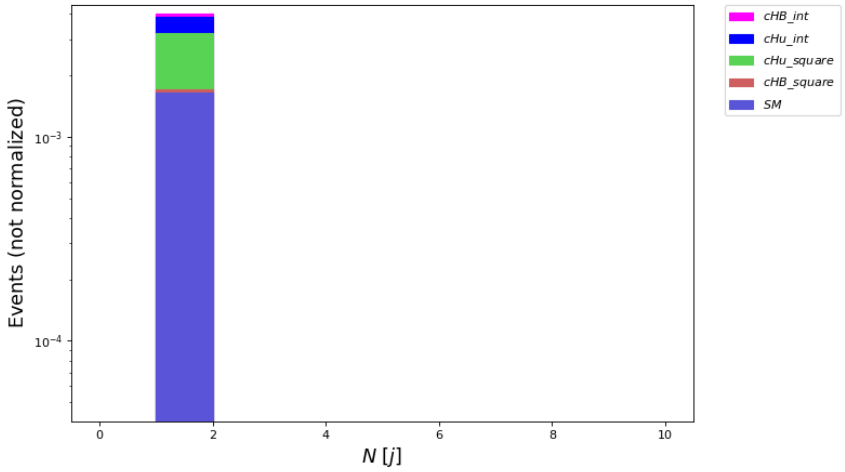


Figure 2.

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
chb_square	0.00041	1.0	2.8008	0.9986	0.0	0.03429
chu_square	0.0137	1.0	2.86804	1.039	0.0	0.0
chu_int	0.0047	1.0	2.73265	0.9489	0.0	0.01145
chb_int	0.000919	1.0	2.65568	0.8964	0.0	0.0

Warnings related to negative event-weights:
dataset=chb_int -> bin 9 has a negative content : -1.92958e-07. This value is set to zero

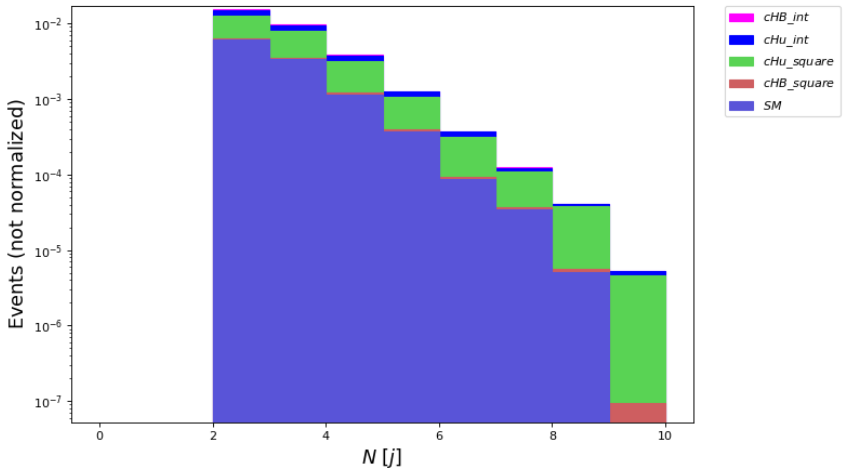


Figure 3.

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
chb_square	1.78e-06 +/- 1.33e-03	0.0 +/- 0.0	1.0	0.0038 +/- 2.8440
chu_square	2.44e-05 +/- 4.94e-03	0.0 +/- 0.0	1.0	0.0016 +/- 0.3235
chu_int	1.34e-05 +/- 3.66e-03	0.0 +/- 0.0	1.0	0.0025 +/- 0.6811
chb_int	1.22e-05 +/- 3.48e-03	0.0 +/- 0.0	1.0	0.0063 +/- 1.8012

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
chb_square	1.81e-05 +/- 4.17e-03	3.87e-05 +/- 5.96e-03	0.318 +/- 61.857	0.0386 +/- 8.9044
chu_square	0.000203 +/- 0.014155	0.00131 +/- 0.03457	0.134 +/- 8.780	0.0133 +/- 0.9271
chu_int	0.000235 +/- 0.014989	0.000432 +/- 0.019937	0.352 +/- 18.492	0.0437 +/- 2.7881
chb_int	0.000115 +/- 0.010416	0.000136 +/- 0.011237	0.459 +/- 31.440	0.0598 +/- 5.3980

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
chb_square	0.000103 +/- 0.008974	0.000306 +/- 0.010290	0.252 +/- 21.464	0.221 +/- 19.173
chu_square	0.00126 +/- 0.03399	0.0125 +/- 0.0478	0.0917 +/- 2.4629	0.0825 +/- 2.2266
chu_int	0.00128 +/- 0.03121	0.00342 +/- 0.03528	0.272 +/- 6.494	0.238 +/- 5.805
chb_int	0.000674 +/- 0.020939	0.000993 +/- 0.021954	0.404 +/- 12.023	0.349 +/- 10.852

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
chb_square	0.0 +/- 0.0	1.78e-06 +/- 1.33e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_square	0.0 +/- 0.0	2.44e-05 +/- 4.94e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_int	0.0 +/- 0.0	1.34e-05 +/- 3.66e-03	0.0 +/- 0.0	0.0 +/- 0.0
chb_int	0.0 +/- 0.0	1.22e-05 +/- 3.48e-03	0.0 +/- 0.0	0.0 +/- 0.0

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
chb_square	2.11e-05 +/- 4.49e-03	3.56e-05 +/- 5.74e-03	0.372 +/- 64.178	0.0451 +/- 9.5924
chu_square	0.000374 +/- 0.019102	0.00114 +/- 0.03242	0.248 +/- 11.109	0.0245 +/- 1.2512
chu_int	0.000257 +/- 0.015642	0.00041 +/- 0.01946	0.385 +/- 18.841	0.0478 +/- 2.9097
chb_int	9.73e-05 +/- 9.61e-03	0.000154 +/- 0.011903	0.387 +/- 30.730	0.0504 +/- 4.9803

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
chb_square	0.000132 +/- 0.009733	0.000278 +/- 0.010627	0.322 +/- 23.090	0.282 +/- 20.795
chu_square	0.00241 +/- 0.04504	0.0113 +/- 0.0541	0.175 +/- 3.246	0.158 +/- 2.950
chu_int	0.00151 +/- 0.03295	0.00319 +/- 0.03602	0.321 +/- 6.815	0.281 +/- 6.128
chb_int	0.000599 +/- 0.020320	0.00107 +/- 0.02184	0.359 +/- 11.754	0.31 +/- 10.53

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
chb_square	0.0 +/- 0.0	1.78e-06 +/- 1.33e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_square	0.0 +/- 0.0	2.44e-05 +/- 4.94e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_int	0.0 +/- 0.0	1.34e-05 +/- 3.66e-03	0.0 +/- 0.0	0.0 +/- 0.0
chb_int	0.0 +/- 0.0	1.22e-05 +/- 3.48e-03	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
chb_square	1.17e-05 +/- 3.37e-03	4.51e-05 +/- 6.38e-03	0.205 +/- 53.644	0.0249 +/- 7.2025
chu_square	0.000406 +/- 0.019882	0.0011 +/- 0.0320	0.269 +/- 11.411	0.0266 +/- 1.3023
chu_int	0.000126 +/- 0.011084	0.000541 +/- 0.022064	0.189 +/- 15.144	0.0234 +/- 2.0618
chb_int	3.07e-05 +/- 5.49e-03	0.000221 +/- 0.013976	0.122 +/- 20.657	0.0159 +/- 2.8477

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
chb_square	9.41e-05 +/- 8.67e-03	0.000315 +/- 0.010142	0.23 +/- 20.79	0.201 +/- 18.527
chu_square	0.00349 +/- 0.05190	0.0102 +/- 0.0581	0.254 +/- 3.716	0.229 +/- 3.399
chu_int	0.0011 +/- 0.0296	0.0036 +/- 0.0345	0.234 +/- 6.178	0.204 +/- 5.499
chb_int	0.000275 +/- 0.015346	0.00139 +/- 0.01970	0.165 +/- 9.089	0.142 +/- 7.953

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
chb_square	5.68e-05 +/- 7.07e-03	0.000353 +/- 0.009322	0.139 +/- 17.082	0.121 +/- 15.096
chu_square	0.00414 +/- 0.05493	0.00959 +/- 0.05971	0.301 +/- 3.916	0.271 +/- 3.598
chu_int	0.000637 +/- 0.023697	0.00406 +/- 0.03154	0.136 +/- 4.998	0.118 +/- 4.408
chb_int	9.80e-05 +/- 9.65e-03	0.00157 +/- 0.01714	0.0588 +/- 5.7646	0.0508 +/- 4.9990

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
chb_square	3.79e-06 +/- 1.94e-03	5.29e-05 +/- 6.85e-03	0.0668 +/- 33.1575	0.0081 +/- 4.1432
chu_square	0.000344 +/- 0.018324	0.00117 +/- 0.03282	0.228 +/- 10.789	0.0225 +/- 1.2002
chu_int	3.82e-05 +/- 6.16e-03	0.000629 +/- 0.023567	0.0572 +/- 8.9916	0.0071 +/- 1.1451
chb_int	5.98e-06 +/- 2.44e-03	0.000245 +/- 0.014631	0.0238 +/- 9.6185	0.0031 +/- 1.2655

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
chb_square	0.0 +/- 0.0	1.78e-06 +/- 1.33e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_square	0.0 +/- 0.0	2.44e-05 +/- 4.94e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_int	0.0 +/- 0.0	1.34e-05 +/- 3.66e-03	0.0 +/- 0.0	0.0 +/- 0.0
chb_int	0.0 +/- 0.0	1.22e-05 +/- 3.48e-03	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
chb_square	0.0 +/- 0.0	1.78e-06 +/- 1.33e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_square	0.0 +/- 0.0	2.44e-05 +/- 4.94e-03	0.0 +/- 0.0	0.0 +/- 0.0
chu_int	0.0 +/- 0.0	1.34e-05 +/- 3.66e-03	0.0 +/- 0.0	0.0 +/- 0.0
chb_int	0.0 +/- 0.0	1.22e-05 +/- 3.48e-03	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
chb_square	2.11e-06 +/- 1.45e-03	5.46e-05 +/- 6.95e-03	0.0371 +/- 25.1044	0.0045 +/- 3.0938
chu_square	0.000183 +/- 0.013454	0.00133 +/- 0.03481	0.121 +/- 8.403	0.012 +/- 0.881
chu_int	1.13e-05 +/- 3.36e-03	0.000656 +/- 0.023997	0.0169 +/- 4.9935	0.0021 +/- 0.6243
chb_int	1.93e-06 +/- 1.39e-03	0.000249 +/- 0.014734	0.00768 +/- 5.50787	0.001 +/- 0.720

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
chb_square	2.34e-05 +/- 4.71e-03	0.000386 +/- 0.008218	0.057 +/- 11.459	0.0499 +/- 10.0646
chu_square	0.00243 +/- 0.04523	0.0113 +/- 0.0542	0.177 +/- 3.258	0.159 +/- 2.962
chu_int	0.000174 +/- 0.012963	0.00452 +/- 0.02680	0.037 +/- 2.754	0.0323 +/- 2.4113
chb_int	2.14e-05 +/- 4.60e-03	0.00164 +/- 0.01558	0.0129 +/- 2.7597	0.0111 +/- 2.3851

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
chb_square	0.000468	1.0	161.867	133.7	0.0	2.53
chu_square	0.0153	1.0	256.935	153.8	0.0	5.88
chu_int	0.00538	1.0	148.947	108.2	0.0	0.88
chb_int	0.00107	1.0	93.8878	74.01	0.0	0.2343

Warnings related to negative event-weights:
dataset=chb_int -> bin 33 has a negative content : -7.71832e-07. This value is set to zero
dataset=chb_int -> bin 41 has a negative content : -3.85916e-07. This value is set to zero
dataset=chb_int -> bin 46 has a negative content : -3.85916e-07. This value is set to zero

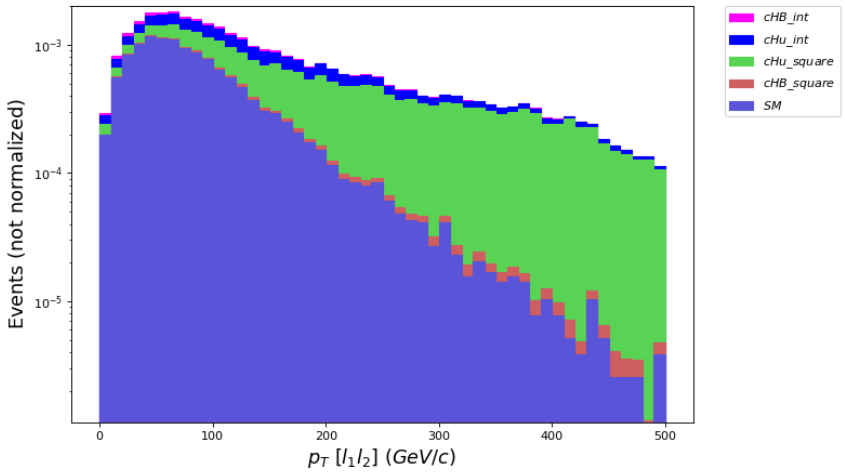


Figure 4.

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
chb_square	1.78e-06	1.0	27.9112	16.07	0.0	0.0
chu_square	2.44e-05	1.0	33.0386	14.6	0.0	0.0
chu_int	1.34e-05	1.0	29.7423	11.33	0.0	0.0
chb_int	6.75e-06	1.0	28.2703	14.39	0.0	0.0

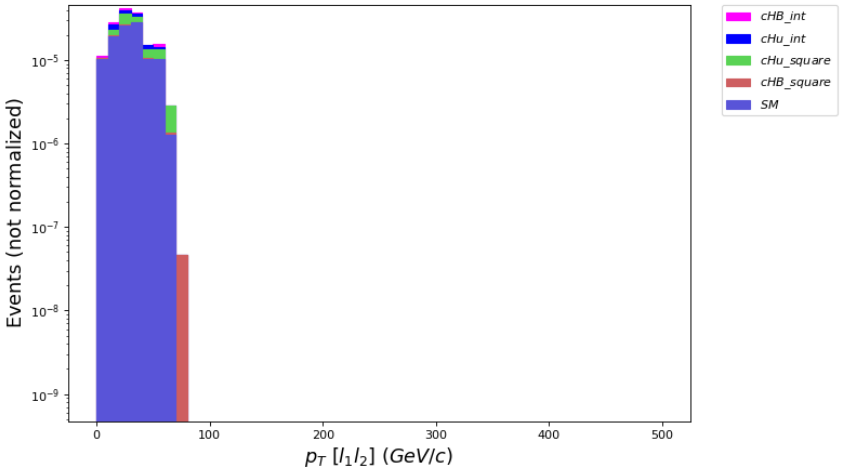


Figure 5.

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
chb_square	1.81e-05	1.0	49.2859	17.6	0.0	0.0
chu_square	0.000203	1.0	49.564	16.75	0.0	0.0
chu_int	0.000235	1.0	47.9512	17.27	0.0	0.0
chb_int	7.02e-05	1.0	46.0297	17.47	0.0	0.0

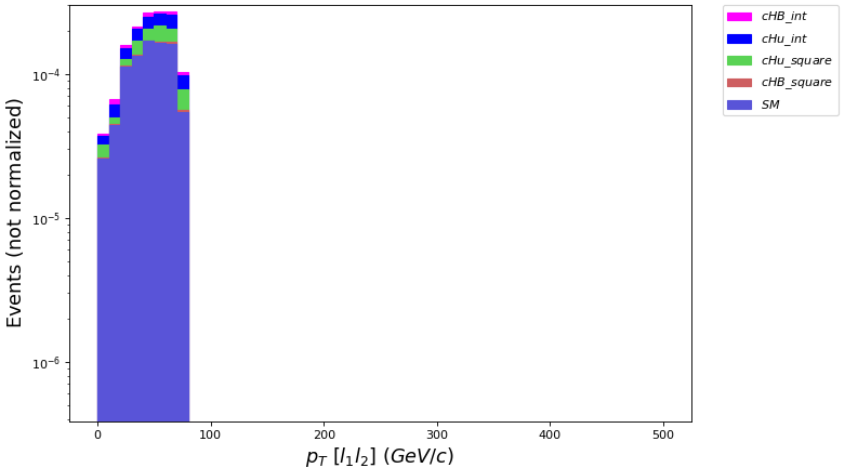


Figure 6.

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
chb_square	0.000103	1.0	46.9194	18.32	0.0	0.0
chu_square	0.00126	1.0	47.9452	18.7	0.0	0.0
chu_int	0.00128	1.0	46.7551	18.14	0.0	0.0
chb_int	0.000439	1.0	43.7186	18.19	0.0	0.0

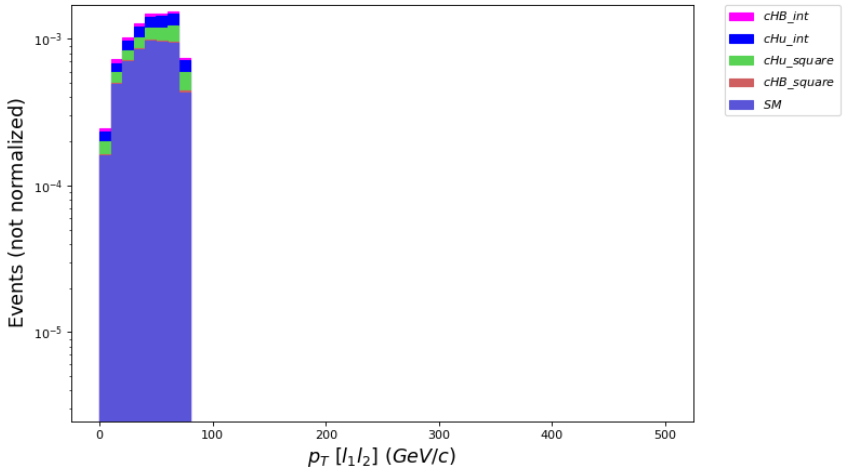


Figure 7.

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
chb_square	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chu_square	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chu_int	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chb_int	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0

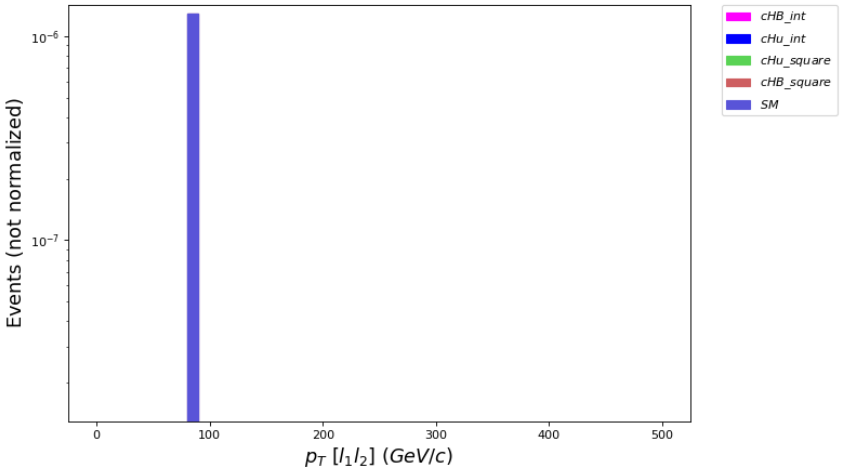


Figure 8.

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
chb_square	9.41e-05	1.0	193.473	28.09	0.0	0.0
chu_square	0.00349	1.0	200.507	28.81	0.0	0.0
chu_int	0.0011	1.0	194.373	28.21	0.0	0.0
chb_int	0.000116	1.0	187.621	27.17	0.0	0.0

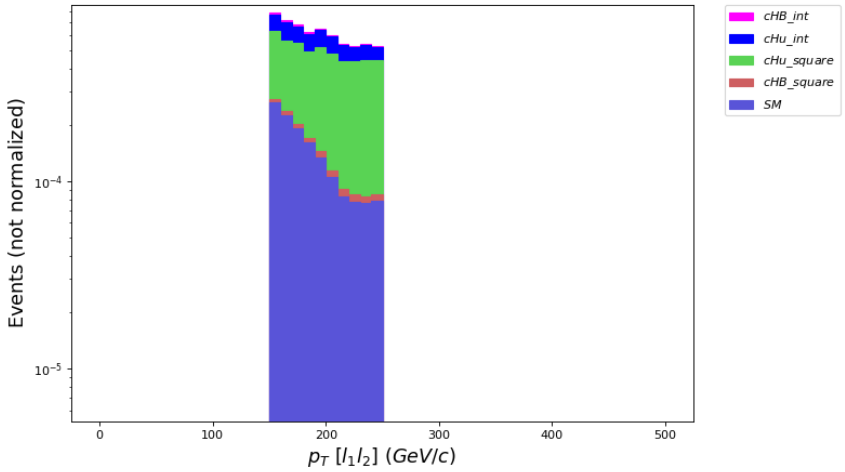


Figure 9.

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
chb_square	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chu_square	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chu_int	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0
chb_int	0.0 +/- 0.0	0.	0.0	0.0	0.0	0.0

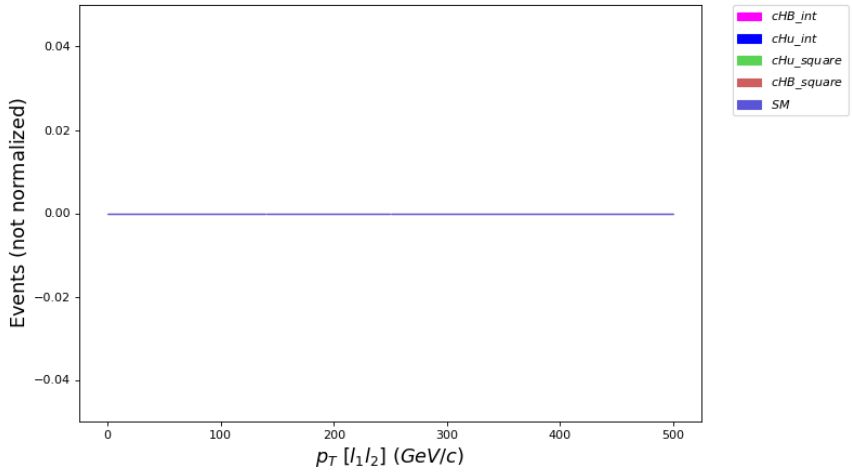


Figure 10.

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
chb_square	0.000332	1.0	475.677	294.9	0.0	33.12
chu_square	0.0114	1.0	635.444	322.0	0.0	60.18
chu_int	0.00378	1.0	405.272	211.6	0.0	24.36
chb_int	0.000737	1.0	303.025	140.1	0.0	7.068

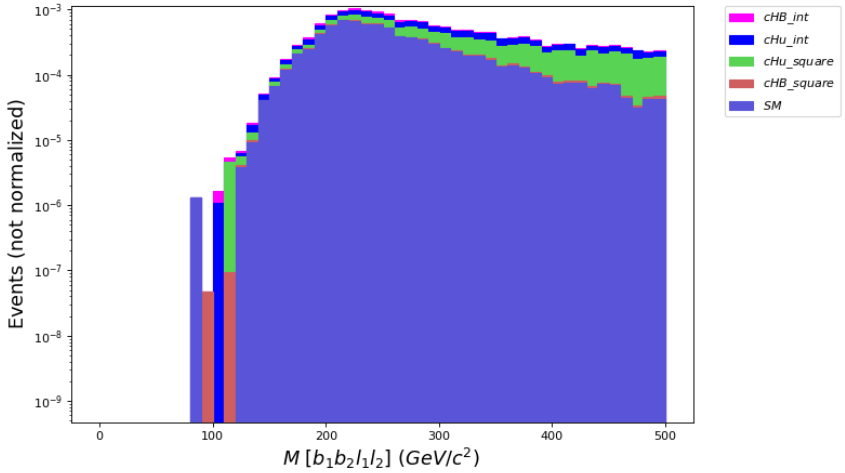


Figure 11.

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
chb_square	8.43e-05	1.0	277.673	141.6	0.0	4.498
chu_square	0.00101	1.0	256.151	82.85	0.0	2.112
chu_int	0.00102	1.0	236.845	53.49	0.0	0.4739
chb_int	0.000354	1.0	232.129	46.53	0.0	0.1636

Warnings related to negative event-weights:
dataset=chb_int -> bin 37 has a negative content : -3.85916e-07. This value is set to zero
dataset=chb_int -> bin 41 has a negative content : -1.92958e-07. This value is set to zero
dataset=chb_int -> bin 45 has a negative content : -1.92958e-07. This value is set to zero

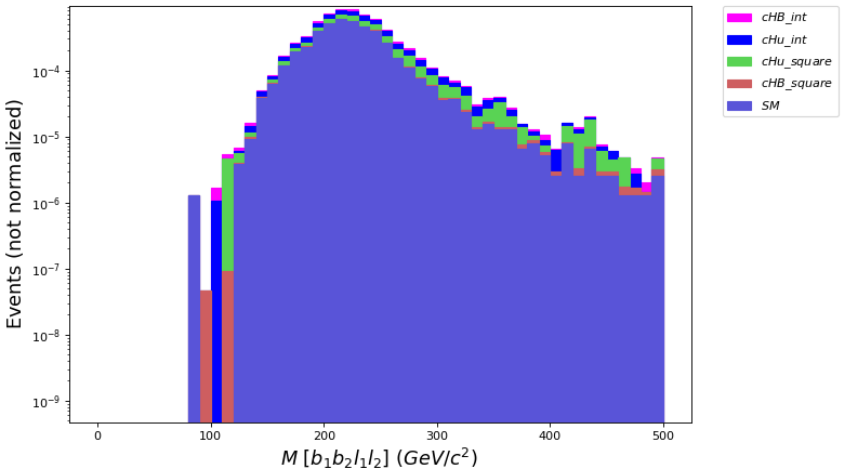


Figure 12.

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
chb_square	7.65e-05	1.0	516.364	183.3	0.0	42.2
chu_square	0.00289	1.0	506.03	145.5	0.0	42.12
chu_int	0.000884	1.0	457.597	109.8	0.0	27.29
chb_int	9.53e-05	1.0	438.232	115.4	0.0	20.65

Warnings related to negative event-weights:
dataset=chb_int -> bin 19 has a negative content : -1.92958e-07. This value is set to zero
dataset=chb_int -> bin 20 has a negative content : -1.92958e-07. This value is set to zero

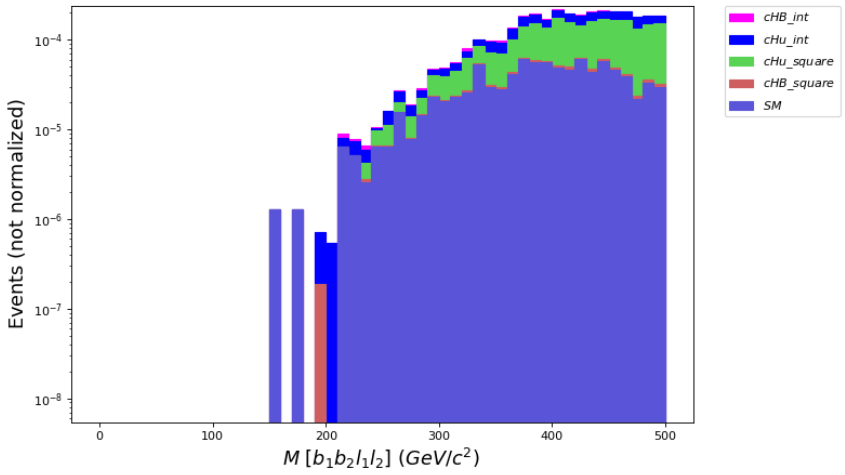


Figure 13.

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
chb_square	4.9e-05	1.0	751.13	232.0	0.0	91.89
chu_square	0.00354	1.0	759.312	196.0	0.0	97.02
chu_int	0.000549	1.0	679.03	151.7	0.0	91.88
chb_int	2.6e-05	1.0	652.961	193.4	0.0	80.74

Warnings related to negative event-weights:
dataset=chb_int -> bin 31 has a negative content : -1.92958e-07. This value is set to zero
dataset=chb_int -> bin 38 has a negative content : -3.85916e-07. This value is set to zero
dataset=chb_int -> bin 42 has a negative content : -1.92958e-07. This value is set to zero
dataset=chb_int -> bin 44 has a negative content : -1.92958e-07. This value is set to zero

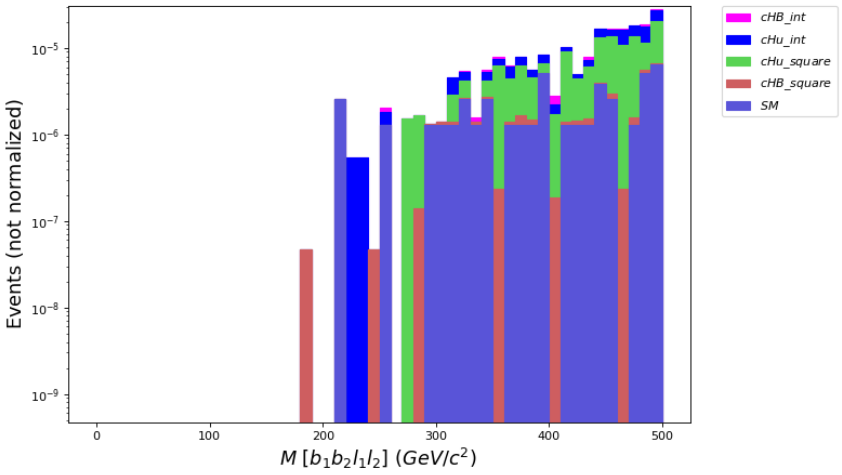


Figure 14.

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
chb_square	1.85e-05	1.0	1143.87	412.3	0.0	98.74
chu_square	0.00203	1.0	1060.12	295.5	0.0	99.17
chu_int	0.00015	1.0	961.981	228.9	0.0	98.21
chb_int	5.4e-06	1.0	998.295	403.0	0.0	89.29

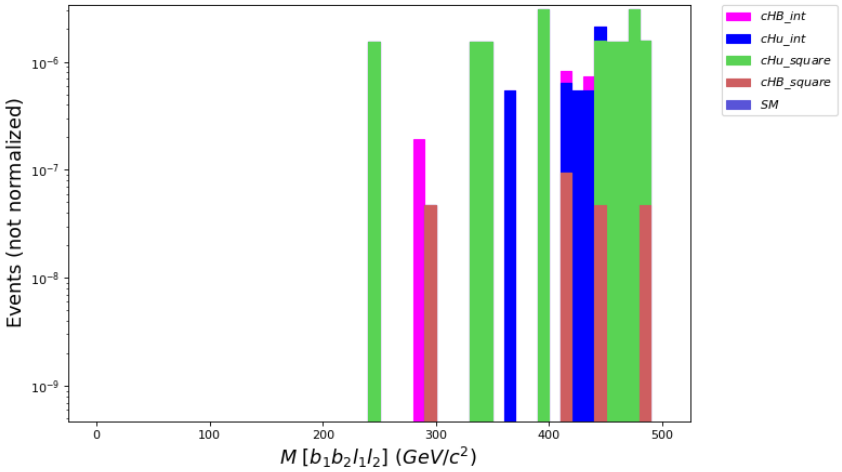


Figure 15.

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)	0.036		

Region: "NJ0_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 0.0	0.000159 +/- 0.012568		
SEL: 0.0 > PT <= 75.0	0.000158 +/- 0.012517		

Region: "NJ1_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 1.0	0.00413 +/- 0.06042		
SEL: 0.0 > PT <= 75.0	0.00144 +/- 0.03687		

Region: "NJ2_0_75"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) >= 2.0	0.0317 +/- 0.0614		
SEL: 0.0 > PT <= 75.0	0.00882 +/- 0.07620		

Region: "NJ0_75_150"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 0.0	0.000159 +/- 0.012568		
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)	0.036		
SEL: N (j) = 1.0	0.00413 +/- 0.06042		
SEL: 75.0 > PT <= 150.0	0.00137 +/- 0.03624		

Region: "NJ2_75_150"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) >= 2.0	0.0317 +/- 0.0614		
SEL: 75.0 > PT <= 150.0	0.00849 +/- 0.07950		

Region: "NJ0_150_250"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 0.0	0.000159 +/- 0.012568		
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)	0.036		
SEL: N (j) = 1.0	0.00413 +/- 0.06042		
SEL: 150.0 > PT <= 250.0	0.000709 +/- 0.026318		

Region: "NJ2_150_250"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) >= 2.0	0.0317 +/- 0.0614		
SEL: 150.0 > PT <= 250.0	0.00635 +/- 0.07156		

Region: "NJ2_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) >= 2.0	0.0317 +/- 0.0614		
SEL: 250.0 > PT <= 400.0	0.00531 +/- 0.06393		

Region: "NJ1_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 1.0	0.00413 +/- 0.06042		
SEL: 250.0 > PT <= 400.0	0.000413 +/- 0.020133		

Region: "NJ0_250_400"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) = 0.0	0.000159 +/- 0.012568		
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)	0.036		
SEL: N (j) = 0.0	0.000159 +/- 0.012568		
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)	0.036		
SEL: N (j) = 1.0	0.00413 +/- 0.06042		
SEL: PT (l[1] l[2]) > 400.0	0.000201 +/- 0.014103		

Region: "NJ2_400_inf"			
Cuts	Signal (S)	Background (B)	S vs B
Initial (no cut)	0.036		
SEL: N (j) >= 2.0	0.0317 +/- 0.0614		
SEL: PT (l[1] l[2]) > 400.0	0.0027 +/- 0.0480		