

200 GeV ppbar

Soft QCD

b

- UA5
- - □ Herwig 7.2.0 default
- - ▲ Pythia 8.108.p1 default
- - ◆ Sherpa 2.1.1 default

1.2

1

0.8

0.6

0.4

0.2

0

UA5_1988_S1867512

Rivet 3.1.0, ≥ 100k events

mcplots.cern.ch [arXiv:1306.3436]

a

Ratio to UA5

2

1

0.5

2

1

0.5

0

2

4

6

Central gap size $\Delta \eta$

The figure displays two panels, (a) and (b), showing the ratio of Soft QCD events to UA5 data as a function of central gap size $\Delta \eta$ (ranging from 0 to 6). The top panel (b) shows the absolute ratio, while the bottom panel (a) shows the ratio relative to UA5. Data points are shown for UA5 (black squares), Herwig 7.2.0 (green dashed line with squares), Pythia 8.108.p1 (blue solid line with triangles), and Sherpa 2.1.1 (red dotted line with diamonds). Shaded regions in the bottom panel indicate the uncertainty bands for the Monte Carlo models.

Central gap size $\Delta \eta$	UA5 (Ratio to UA5)	Herwig 7.2.0 (Ratio to UA5)	Pythia 8.108.p1 (Ratio to UA5)	Sherpa 2.1.1 (Ratio to UA5)
0	0.50	0.48	0.32	0.62
1	0.40	0.38	0.26	0.53
2	0.33	0.34	0.21	0.44
3	0.26	0.29	0.16	0.33
4	0.18	0.24	0.11	0.21
5	0.11	0.19	0.07	0.09
6	0.07	0.12	0.04	0.05