

200 GeV pp

Soft QCD

 $pT(\pi^-)$

- STAR
- ▲ Pythia 8.201 default
- ◆ Sherpa 2.2.9 default

10

1

 10^{-1}

(STAR_2008_I793126)

Rivet 4.1.0, ≥ 100k events

mcplots.cern.ch [arXiv:1306.3436]

Ratio to STAR

2

2

1

1

0.5

0.5

0.2

0.4

0.6

0.8

The figure consists of two panels. The top panel shows the $pT(\pi^-)$ distribution on a logarithmic scale from 10^{-1} to 10. The bottom panel shows the ratio of the distribution to the STAR data on a linear scale from 0.5 to 2. The x-axis for both panels is $pT(\pi^-)$ from 0.2 to 0.8. The top panel includes data points for STAR (black squares), Pythia 8.201 default (blue triangles), and Sherpa 2.2.9 default (red diamonds). The bottom panel shows the ratio of the Pythia and Sherpa models to the STAR data, with a horizontal line at 1.0 indicating perfect agreement.

$pT(\pi^-)$	STAR	Pythia 8.201 default	Sherpa 2.2.9 default	Ratio to STAR (Pythia)	Ratio to STAR (Sherpa)
0.23	2.0	1.6	1.9	0.8	0.9
0.28	1.6	1.4	1.5	0.9	0.95
0.33	1.2	1.1	1.1	0.9	0.95
0.38	0.8	0.8	0.7	1.0	0.9
0.43	0.6	0.6	0.6	1.1	1.0
0.48	0.4	0.4	0.4	1.1	0.95
0.53	0.3	0.3	0.3	1.1	1.0
0.58	0.2	0.2	0.2	1.2	1.1
0.63	0.15	0.15	0.15	1.1	1.0
0.68	0.12	0.12	0.12	1.2	1.0
0.73	0.1	0.1	0.1	1.3	1.1
0.78	0.08	0.08	0.08	1.5	1.0