

Jets

The plot displays the ratio of particle multiplicities to the CMS 2021 data for two models: POWHEG BOX r3744 default (red line) and Pythia 8.212 default (blue line). The x-axis represents multiplicity (0 to 150), and the y-axis represents the ratio to CMS (0.5 to 2.0). The POWHEG model shows a peak around multiplicity 40, while the Pythia model is flat at 1.0. A green histogram shows the ratio distribution, and a yellow histogram shows the absolute multiplicity distribution.

Multiplicity	POWHEG Ratio to CMS	Pythia Ratio to CMS
0	1.0	1.0
10	1.5	1.0
20	2.5	1.0
30	3.5	1.0
40	4.0	1.0
50	3.5	1.0
60	2.5	1.0
70	1.5	1.0
80	1.0	1.0
90	0.7	1.0
100	0.5	1.0
110	0.4	1.0
120	0.3	1.0
130	0.2	1.0
140	0.1	1.0
150	0.0	1.0

CMS_2021_I1920187

mcplots.cern.ch [arXiv:1306.3436]

Rivet 3.1.10, $\geq 300\text{k}$ events