

7000 GeV pp

Soft QCD

Average  $p_T$  vs  $N_{ch}$  ( $p_T^{ch} > 0.25$ ,  $p_T^j > 0.25$ ,  $|\eta| < 1.9$ , leading in-jet charged particles)

- CMS
- ▲ Pythia 8.308 default
- ✱ Pythia 8.308 tune-4c
- Pythia 8.308 tune-4cx

6

5

4

3

2

2

1

0.5

0

50

100

 $N_{ch}$ Rivet 3.1.10,  $\geq 2.4M$  events

mcplots.cern.ch [arXiv:1306.3436]

CMS\_2013\_I1261026

Ratio to CMS

2

1

0.5