

Neutral pion production in pp collisions at LHC-Run1

Measurement of neutral pion production in pp collisions is useful to test the QCD predictions at high p_T ($> 4 \text{ GeV}/c$). At low p_T , perturbative QCD cannot be applied to predict the particle production and therefore, only phenomenological models can be used. To put constraints on these models, the measurement in a very wide p_T region is very important. Furthermore, the comparison between different collision energies is also important because insight into the particle production mechanism can be obtained by comparing the different particle spectra. The invariant cross sections for neutral pion production measured by the ALICE experiment in pp collisions at LHC-Run1 energies are shown and the particle production mechanism via $x_T = p_T/2\sqrt{s}$ scaling is discussed in this poster.

Preferred Track

Jets and High p_T Hadrons

Collaboration

ALICE

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