

Measurement of Angular Distributions of $Z0/\gamma^* + \text{Jet}$ with CMS detector at $\sqrt{s} = 7\text{TeV}$

The area-normalized angular distributions in events containing a $Z0$ boson and a jet, using the electron decay mode will be presented. The data samples correspond to $\sim 5\text{fb}^{-1}$ of proton-proton collisions at $\sqrt{s}=7$ TeV, collected by the CMS detector. Events in which there is a Z boson and at least one jet, with a jet transverse momentum threshold of 30 GeV/c and absolute jet rapidity less than 2.4, are selected for this analysis. We compare our measurements with a next-to-leading-order perturbative QCD calculation and two generators that combine tree-level matrix element calculations with parton showers.

Primary author: Ms UPPAL, Bhawandeep (Panjab University, Chandigarh)

Co-author: Prof. BERI, Suman Bala (Panjab University, Chandigarh)

Presenter: Prof. BERI, Suman Bala (Panjab University, Chandigarh)

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