## Jet Energy Loss at LHC

Vineet Kumar\* Nuclear Physics Division, Bhabha Atomic Research Center, Mumbai, India

## Prashant Shukla

Nuclear Physics Division, Bhabha Atomic Research Center, Mumbai, India and Homi Bhabha National Institute, Anushakti Nagar, Mumbai, India (Dated: July 8, 2020)

In this work, the jet energy loss is analyzed using a monte carlo method. The data from LHC at  $\sqrt{s_{\rm NN}} = 2.76$  TeV and 5.02 TeV is used to extract the perameters for specific energy loss of jets inside QGP. Our calculations give good discription of the nuclear modification factor and asymmetry measurements at LHC.

PACS numbers:  $12.38.\mathrm{Mh}, 24.85.+\mathrm{p}, 25.75.-\mathrm{q}$  Keywords: quark-gluon plasma, direct photon

- I. INTRODUCTION
- II. JET ENERGY LOSS
- III. RESULTS AND DISCUSSIONS

IV. SUMMARY

J. SOllfrank, P. Huovinen, M. Kataja, P.V. Ruuskanen, M. Prakash and R. Venugopalan, Phys. Rev. C55, 392 (1997).

 $<sup>^*\</sup> vineetk@barc.gov.in$ 

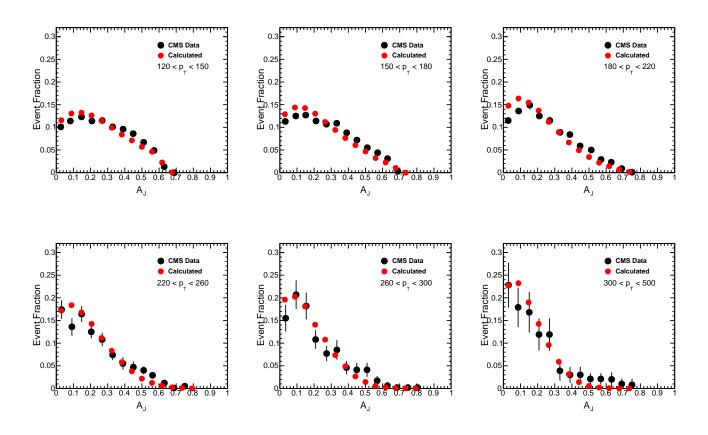


FIG. 1. (Color online) DiJet asymmatry measured by CMS compared with our calculations.

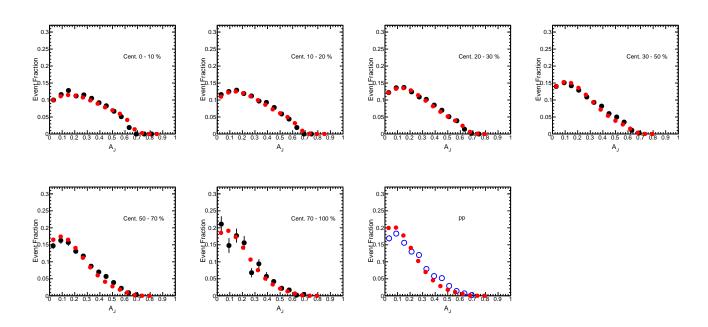


FIG. 2. (Color online) DiJet asymmatry measured by CMS compared with our calculations.

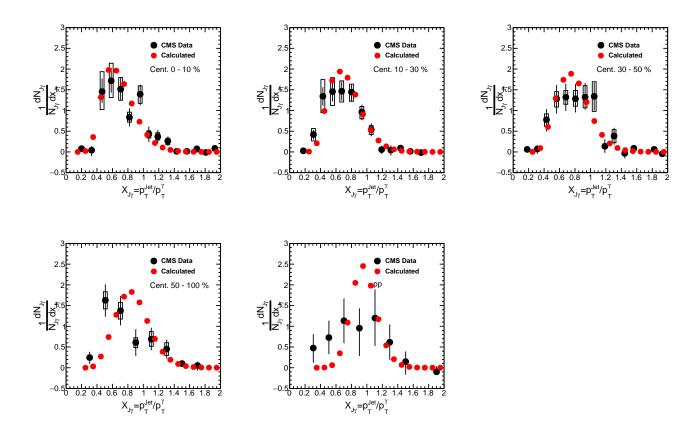


FIG. 3. (Color online) DiJet asymmatry measured by CMS compared with our calculations.

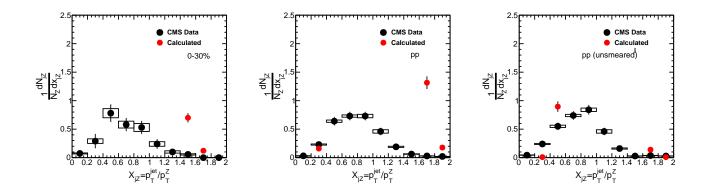


FIG. 4. (Color online) DiJet asymmatry measured by CMS compared with our calculations.