
DRAFT
CMS Physics Analysis Summary

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Supplemental Materials for HIN-19-014

The CMS Collaboration

Abstract

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PDFAuthor: Shuai Yang, Wei Li
PDFTitle: Supplemental Materials for HIN-19-014
PDFSubject: CMS
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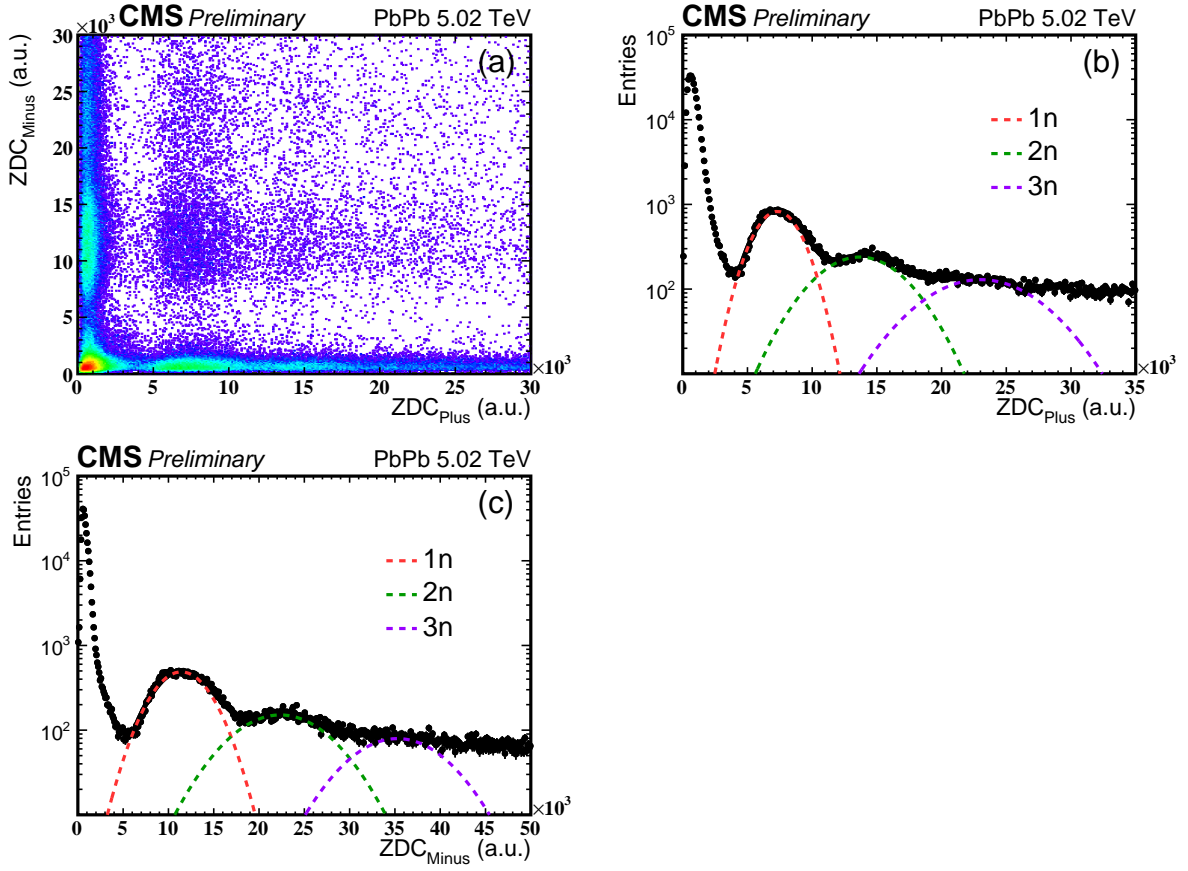


Figure 1: (a) The Minus vs. Plus ZDC energy distributions. (b) Multi-Gaussian fit to Plus ZDC energy distribution. (c) Multi-Gaussian fit to Minus ZDC energy distribution.

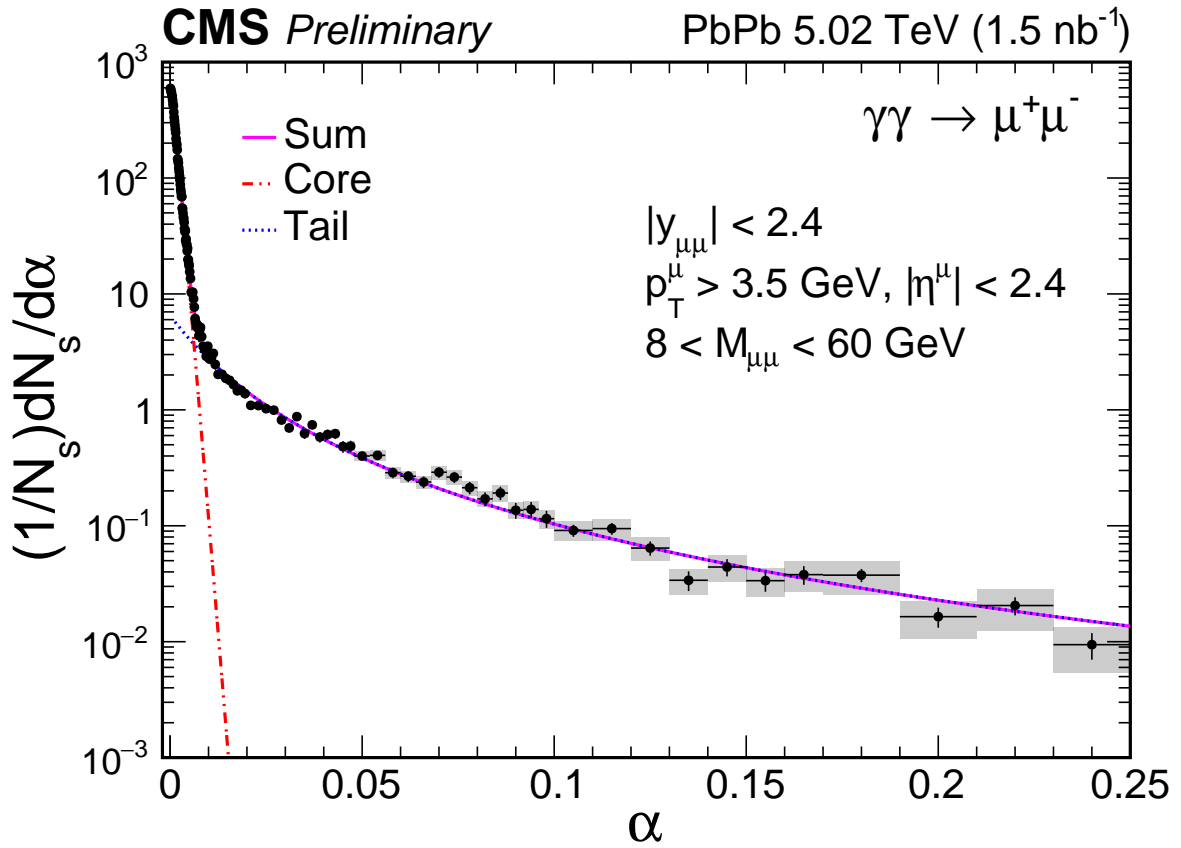


Figure 2: The α spectra from $\gamma\gamma \rightarrow \mu^+\mu^-$ within the CMS acceptance for $8 < M_{\mu\mu} < 60$ GeV in ultra-peripheral PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. The α distribution is normalized to unit integral over its measured range. The dot-dot dashed line depicts the core contribution while the dotted line represents the tail contribution. The vertical lines on data points depict the statistical uncertainties while the systematic uncertainties are shown as gray boxes.

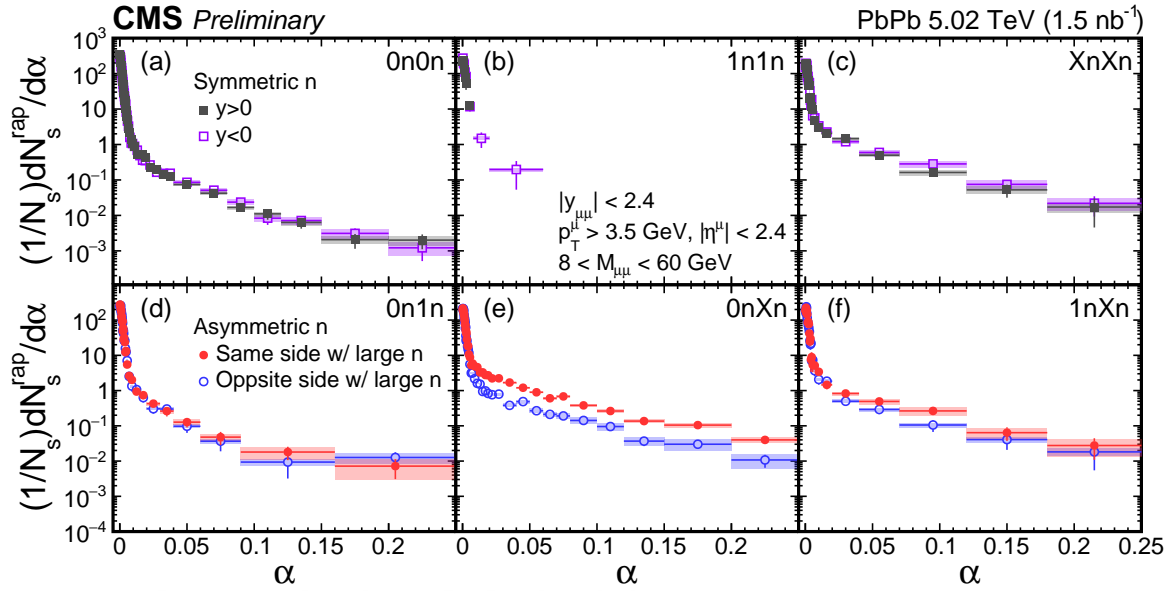


Figure 3: Rapidity dependence of α spectra from $\gamma\gamma \rightarrow \mu^+\mu^-$ within the CMS acceptance in the mass region $8 < M_{\mu\mu} < 60$ GeV for all analyzed neutron multiplicity classes. For each neutron multiplicity class, both α spectra are normalized by the total yields measured in this class. The vertical lines on data points depict the statistical uncertainties while the systematic uncertainties of the data are shown as shaded areas.

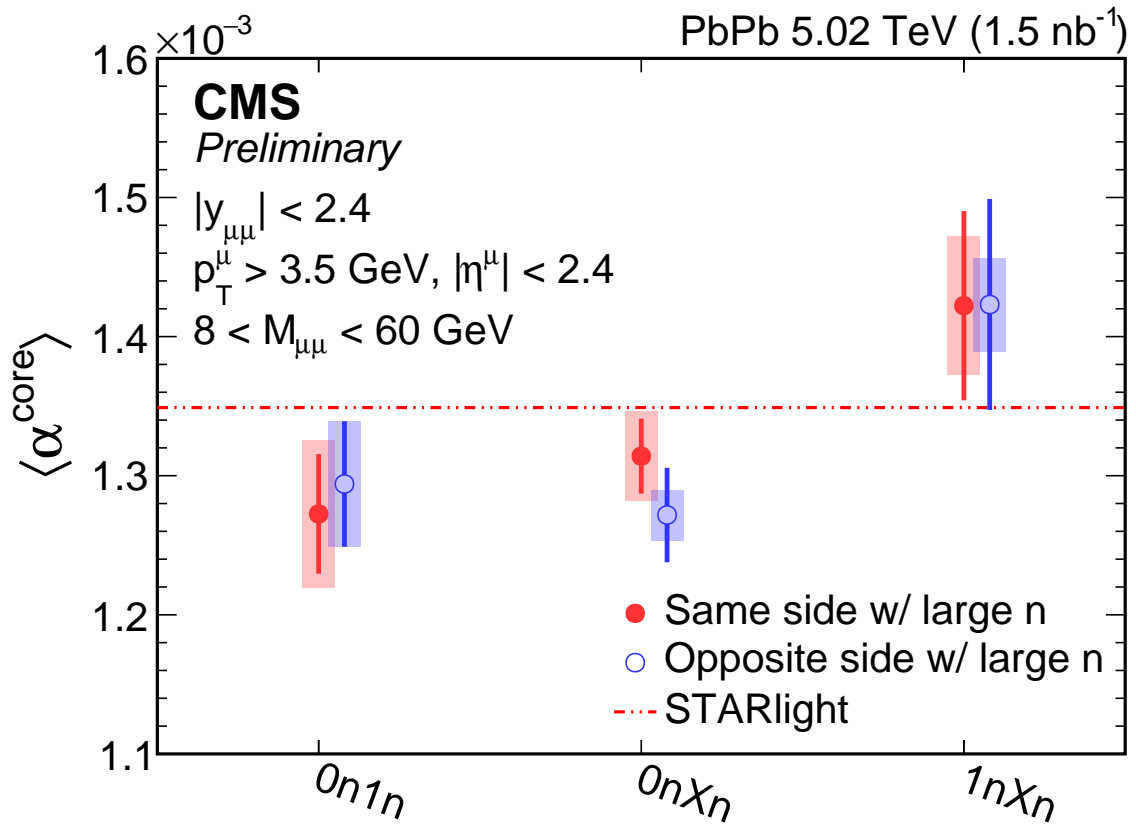


Figure 4: Rapidity dependence of $\langle \alpha^{\text{core}} \rangle$ in neutron multiplicity classes with asymmetric neutron numbers. The vertical lines on data points depict the statistical uncertainties while the systematic uncertainties of the data are shown as shaded areas.