Z production in pPb and PbPb collisions at 5.2 TeV

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There is a growing interest in the exam and analysis of results in the ALICE, ATLAS and CMS detectors in asymmetric systems (pPb) due to the possibilities of establishing some references for PbPb collisions and to gain insight into the behavior of the medium itself. The analysis of data in both cases can allow the understanding of the PDFs under different regimes. The study of the initial state in proton-lead collision at 5.02 TeV using Drell-Yan process was chosen because the inclusive lepton production is a clean process independent of the color degree freedoms. For the study, it was considered an extension of the Glauber model to express the cross-section. Under this approach, we can examine the initial vertex of the hard process described by sigma_pp and apply the usual calculation through the factorization theorem. In particular, we focused on the analysis of the pT distribution and compared the role of different factorization schema in the behavior of the distribution at low pT.

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