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Studies on charm-strange baryon Ξ_c^+ in 8.16TeV pPb collisions with LHCb

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The Ξ_c^+ baryon is an open charm state comprised of an up, strange, and charm quark. For its peculiar composition with the presence of the strange quark, studies of baryon-to-baryon ratio of Ξ_c^+ to Λ_c^+ can provide valuable information on charm hadronization mechanisms, and possibly observe strangeness enhancement in small systems. We present the first study of Ξ_c^+/Λ_c^+ ratio in proton lead and lead proton collisions at the $\sqrt{s} = 8.16$ TeV with the LHCb experiment. The baryons are reconstructed in their decay with a proton, a kaon, and a pion in about 30 nb^{-1} of data. The results will be compared to existing measurements in other collision systems and at different energies, and to recent theoretical predictions.

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