

Abstract Submitted  
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**Charmed hadron analysis in small relativistic heavy ion systems at the LHC** OVEIS SHEIBANI, University of Houston , ALICE COLLABORATION<sup>1</sup> — Charmed hadrons,  $\Lambda_c^+$  and  $D_0$ , were measured in pPb collision at  $\sqrt{s} = 5.02\text{TeV}$  with the ALICE experiment. The following hadronic decay channels of  $\Lambda_c^+ \rightarrow K^- \pi^+ p$  and  $D_0 \rightarrow K^- \pi^+$  were reconstructed. The purpose of this study was to measure the system size dependence of the charmed particle production by linking pPb measurements to pp and PbPb results. 600 million events were selected based on the number of tracklets in the inner detector, which serves as a charged particle multiplicity proxy, and thus as the estimator for the size of the system. The ratio of  $\Lambda_c^+$  to  $D_0$  as a function transverse momentum is analyzed as a function of the charged particle multiplicity to see if higher multiplicity events exhibit enhanced baryon production, which could potentially be caused by the formation of small, thermally equilibrated QGP droplets.

<sup>1</sup>ALICE collaboration at LHC

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