



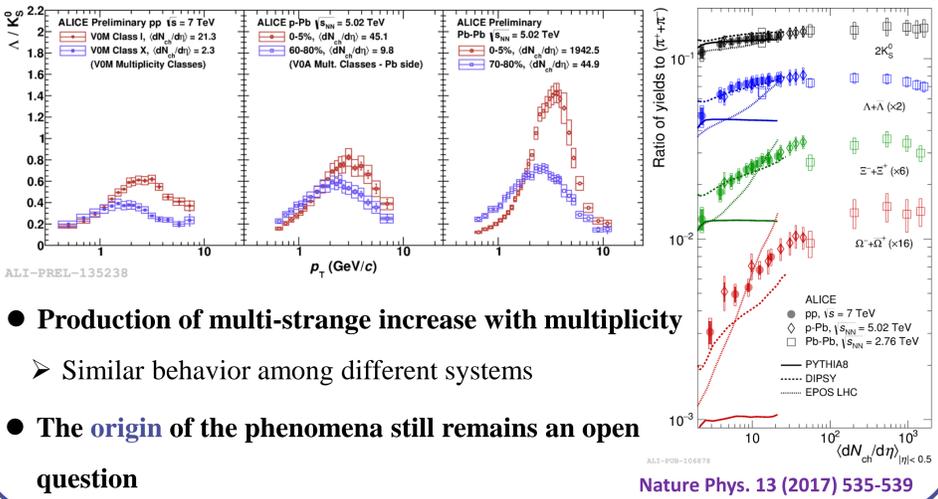
Strange Particles Production in Jets and Underlying Events in Small Colliding Systems with ALICE



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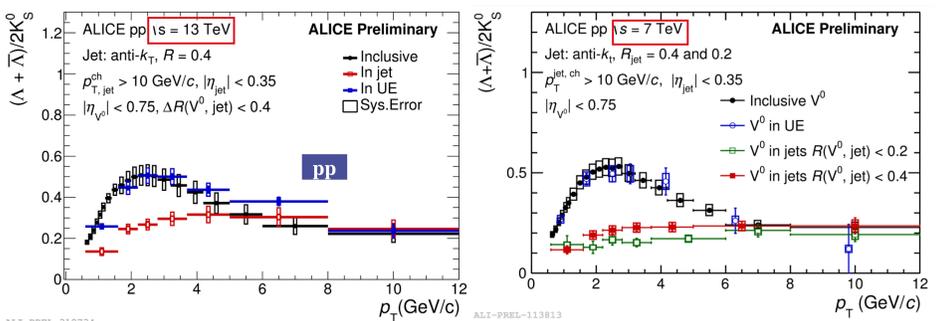
Motivation

- Enhancement of Λ/K_S^0 ratio observed at intermediate p_T at high multiplicity in pp, p-Pb and Pb-Pb collisions w. r. t that at low multiplicity

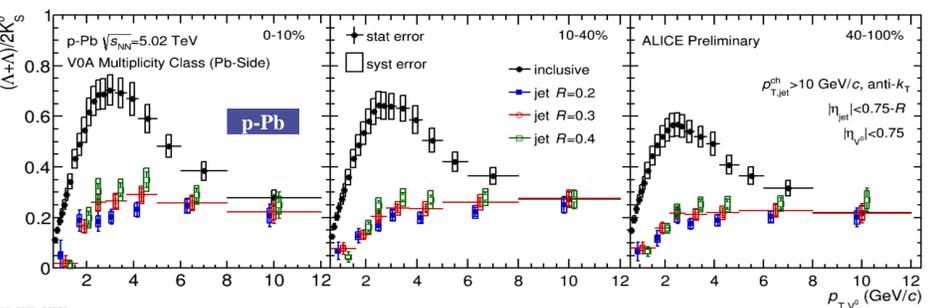


- Production of multi-strange increase with multiplicity
 - Similar behavior among different systems
- The origin of the phenomena still remains an open question

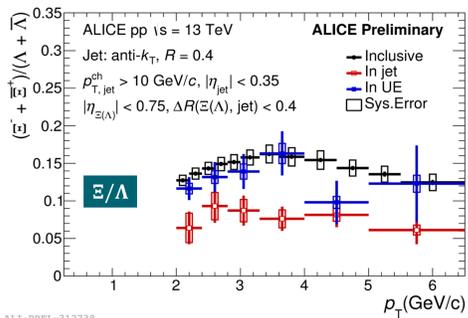
Ratios



- The enhancement of Λ/K_S^0 ratio in pp collisions is not present when the particles are within an energetic jet.
- Results at $\sqrt{s} = 7$ TeV are consistent with that at $\sqrt{s} = 13$ TeV within uncertainties



- The ratio in jets in p-Pb collisions depend only slightly on the jet resolution parameter R and do not vary with centrality bins



- Ξ/Λ is almost p_T independent in jet region

Conclusions

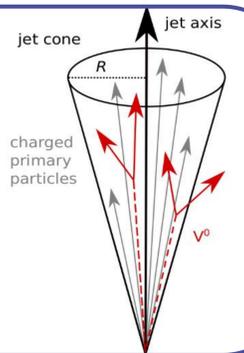
- The relationship between the spectra of K_S^0 , Λ and Ξ in jets and the UE may hint that the baryon and meson production mechanism is the same
- The enhancement of baryon to meson ratio in high multiplicity events may be attributed to soft components of the collisions
- The enhanced production of multi-strange hadrons in high-multiplicity events may also be explained by soft components of the collisions

This Contribution

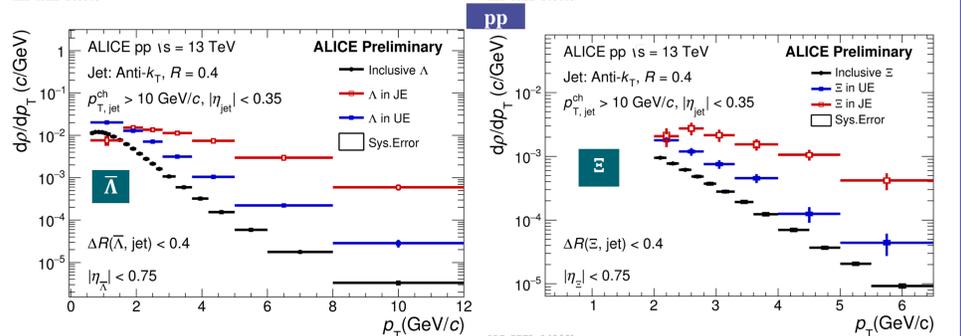
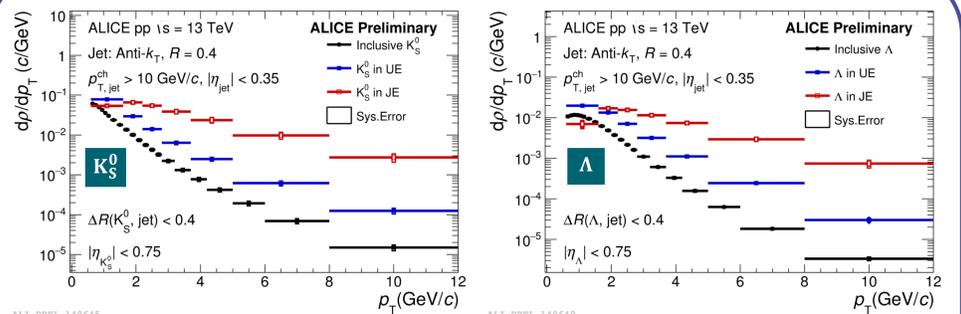
- The measurement of particles in jets provide a reference to separate particles produced in hard processes and underlying events → further constraints on particle production mechanisms in different systems
- pp
 - Study the jet fragmentation properties in vacuum
 - Provide reference for p-Pb and Pb-Pb systems
- p-Pb
 - A new insight into understanding the origin of flow-like behavior observed at high multiplicity in small systems

Strategy

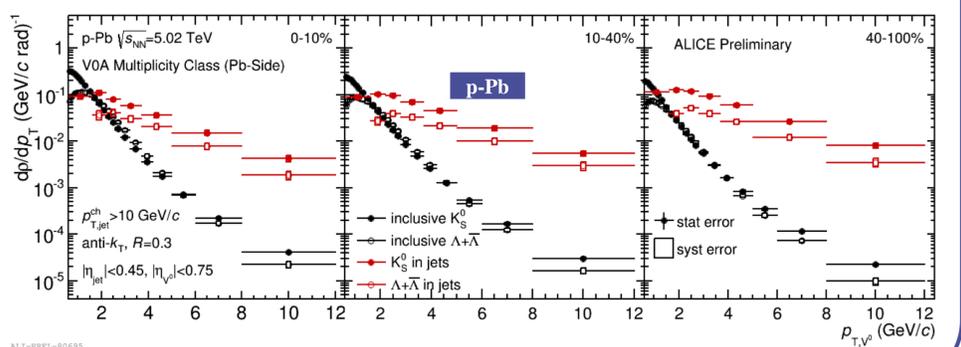
- Tag the hard scattering with charged particle jets
- Reconstruct V^0 s (Λ , $\bar{\Lambda}$ and K_S^0) and Ξ (Ξ^- and Ξ^+) within the “jet region” and the “Underlying event region (UE)”



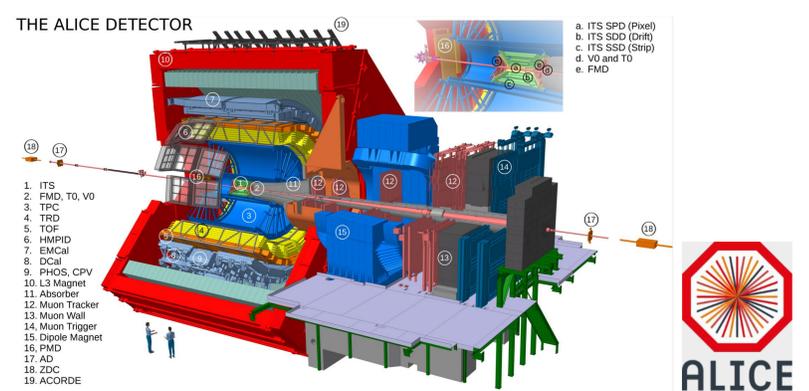
Spectra



- The spectra of K_S^0 , Λ and Ξ in jets are always harder than that in UE



THE ALICE DETECTOR



ACKNOWLEDGMENT

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