

Two-particle correlation and flow of identified hadrons in small systems at LHC energies

Thursday 14 December 2017 11:00 (15 minutes)

Recent measurements in proton-proton (pp) and proton-nucleus (pA) collisions at LHC energies show that the charged particle multiplicity density is comparable to that produced in nuclear collisions at lower energies. The long-range “ridge” structures observed in high multiplicity pp and p-Pb collisions resemble those seen in Pb-Pb collisions. The “ridge” structure in Pb-Pb collisions suggests collective bulk behavior and the corresponding observation in high multiplicity pp and p-Pb collisions indicates a possible connection with multiple partonic interactions.

In this talk, a comprehensive study of long-range correlations in pp and p-Pb and elliptic flow of identified hadrons in p-Pb collisions at LHC energies will be presented. The results will also be compared with corresponding measurements from Pb-Pb collisions.

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Session Classification: WG5: High Multiplicities