

Collectivity phenomena search in pp, p-Pb and Pb-Pb collisions with ALICE at the LHC

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One of the main design goals of the ALICE experiment is hadron identification at mid-rapidity over a wide range of transverse momenta. Thanks to its excellent PID capabilities and p_T coverage, ALICE offers an ideal test-bench for the measurement of transverse momentum distributions, dN/dy and $\langle p_T \rangle$ of identified light flavor hadrons. In the present contribution those measurements are reported for pp, p-Pb and Pb-Pb collisions at the LHC energies.

A particle mass dependent hardening of the spectral shapes is observed in Pb-Pb collisions and can be interpreted as due to hydrodynamical flow and may be quantitatively parameterized with Boltzmann-Gibbs Blast Wave fits. The study of the possible existence of collective phenomena in small systems such as pp, p-Pb and peripheral Pb-Pb is also presented showing that similar trends are observed for those systems in multiplicity dependent studies.

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