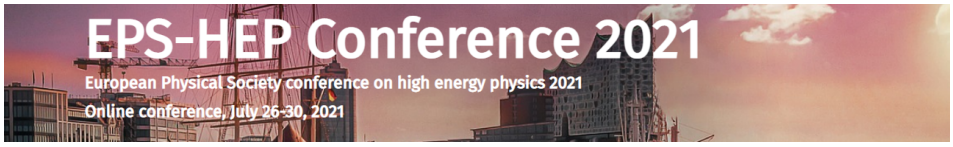

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Geometrical scaling for strange and multi-strange hadrons in pp and A-A collisions at relativistic energies

Color Glass Condensate is a powerful theoretical tool that is able to describe the dynamical properties of partons in the QCD non-perturbative regime, characterized by strong color fields and high parton density.
A previous study, performed for a wide range of energies measured at the Relativistic Heavy Ion Collider (RHIC) and at the Large Hadron Collider (LHC), has shown that observables characteristic for the dynamics of the collision, i.e. the mean transverse momentum ($< p_T >$), the slope of the $< p_T >$ dependence on the mass of the particles and the average transverse flow velocity obtained from the simultaneous fits of the p_T spectra of the detected particles with the Boltzmann-Gibbs Blast Wave expression, scale rather well as a function of the square root of the ratio of the particle density over unit of rapidity and the overlapping area of the colliding nuclei ($\sqrt{\frac{dN/dy}{S_\perp}}$), the relevant scale in the gluon saturation picture.
This study was extended to strange and multi-strange hadrons, for both proton-proton (pp) and heavy-ion (A-A) collision systems. The dependence of the $< p_T >$ and its slope as a function of particle mass on $\sqrt{\frac{dN/dy}{S_\perp}}$, for K^S_0, Λ, Ξ^- and Ω^-, are presented. The comparison with the results obtained for non-strange light flavor hadrons is discussed.

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