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Analysis of the strange particle transverse flow in relativistic heavy-ion collisions

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Heavy-ion collisions at relativistic energies offer a unique opportunity to investigate the properties of highly excited dense nuclear matter in the laboratory. Strange hadron production in nucleus-nucleus collisions is believed to be an important tool to study the dynamics of the produced QCD matter. Transverse momentum spectra of strange particles (K_S^0 , Λ , $\bar{\Lambda}$, Ξ^- , Ξ^+ , ϕ , Ω^- , and $\bar{\Omega}^+$) produced in relativistic nuclear collisions at various collision energies are studied using different parametrizations. The centrality, energy and hadron mass dependence of the average transverse momentum and the effective temperature of strange particles will be presented. These results will be compared with previous results from AGS, SPS and RHIC experiments.

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