

Spectral Analysis for Hadrons Produced in Heavy Ion Collisions

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Abstract:

The problem of heavy ion collision is viewed in mechanisms that may describe the reaction as a superposition of either folding a single nucleon-nucleon interactions or the interaction of projectile clusters with the target. The experimental features of the heavy ion reactions at wide range of energies for different target and projectile nuclear sizes provide us with information that reveals the picture of the interaction mechanism as well as the structure of the nucleus. In this work we concentrate our investigation upon two important measurements, the angular and the multiplicity behavior of the produced particles in the final state. Both the two methods predict that the formation of proton, alpha and carbon clusters during the interaction of Mg with the target emulsion.

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