Quark Matter 2014 - XXIV International Conference on Ultrarelativistic Nucleus-Nucleus Collisions



Contribution ID: 61

Type: Contributed Talk

Collective flow in small systems

Monday 19 May 2014 11:40 (20 minutes)

The collective expansion of the fireball formed in ultrarelativistic p-A and d-A collisions are discussed. Estimates based on the extrapolation of the hydrodynamic model from A-A collisions to small systems indicate possible formation of a dense droplet of matter. Fluctuation in the initial state lead to finite eccentricity and triangularity, which give measurable elliptic and triangular flow of the emitted particles. Further predictions consistent with experimental observations are the mass ordering of the average transverse momentum and of the elliptic flow for identified particles. We discuss the prediction of the model for collisions of a deformed projectile as in d-A collisions. This deformation leads to a large elliptic flow.

Primary author: BOZEK, Piotr
Co-author: BRONIOWSKI, Wojciech (IFJ PAN)
Presenter: BOZEK, Piotr
Session Classification: Collective dynamics

Track Classification: Collective Dynamics