



Contribution ID: 129

Type: Oral

Flow analysis in CBM experiment at FAIR

Tuesday, 1 September 2015 15:30 (15 minutes)

The CBM experiment aims to study heavy ion collisions at incident beam energies between 10 and 45 AGeV corresponding to high net-baryon densities and moderate temperatures of the phase diagram of nuclear matter. Anisotropic flow defined as a correlation between the azimuthal angle of an outgoing particle and the azimuthal angle of the impact parameter offers the access to equation of state of strongly interacting matter. At RHIC energies the studies shows that flow is developed at very early stages of collisions at partonic level. Similar behaviors are expected at CBM energies. On the other hand there is a lack of experimental observations in the range of energies covered by CBM. In this work we present by comparison the possibility of applying different methods for analyzing the flow in CBM experiment, respectively event plan method, cumulant method, Lee-Yang Zero method. Our analysis is focused mainly on directed and elliptic flow using simulation code YaPT. We will discuss the results compared to experimental data, AGS, STAR, close to CBM energies range.

Primary author: BABAN, Valerica (Constanta Maritime University/Bucharest University , Faculty of Physics)

Co-authors: Prof. JIPA, Alexandru (University of Bucharest(UBuc-Phys)); Dr ARGINTARU, Danut (Constanta Maritime University, Romania)

Presenter: BABAN, Valerica (Constanta Maritime University/Bucharest University , Faculty of Physics)

Session Classification: Heavy Ion Collisions and QCD Phases