

Analysis of anisotropic transverse flow in Pb-Pb collisions at 40 AGeV in the NA49 experiment at CERN SPS using Qn-Corrections Framework

Monday, 2 October 2017 15:10 (170)

Anisotropic transverse flow is one of the most important observables in a study of matter produced in ultra-relativistic nucleus-nucleus collisions. Detector acceptance non-uniformity in the transverse plane introduces substantial bias in the flow analysis dictating the need for applying specific corrections.

In this poster, the results of flow analysis in Pb-Pb collisions at the beam energy of 40 AGeV recorded with the fixed target experiment NA49 at CERN SPS are presented. Three-subevent technique is used for the differential measurements of the directed and elliptic flow. Corrections for the detector acceptance anisotropy in the transverse plane are applied using extension of the Qn-Corrections Framework developed originally for the ALICE experiment at the LHC.

The results are compared with those previously obtained by STAR at RHIC and the NA49 at CERN SPS collaborations. In the future, the developed procedure will be used for the analysis of the new Pb-Pb data collected by the NA61/SHINE experiment at CERN SPS.

Primary author(s) : Mr. GOLOSOV, Oleg (NRNU MEPhI)

Co-author(s) : Dr. SELYUZHENKOV, Ilya (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Presenter(s) : Mr. GOLOSOV, Oleg (NRNU MEPhI)

Session Classification : Poster session and coffee&reception