

Elliptic flow of negatively charged pions measured with the event plane method in Pb-Pb collisions at 40 AGeV by the NA49 experiment at CERN SPS

Monday, 2 October 2017 15:10 (170)

A hot and dense matter is produced in heavy-ion collisions at relativistic energies. Anisotropic expansion of this matter result in the momentum asymmetry of the particle production relative to the reaction plane, a so called azimuthal anisotropic flow.

In this poster, the measurement of the elliptic flow for negatively charged pions in inelastic Pb-Pb collisions at the beam energy of 40 AGeV obtained with the fixed target experiment NA49 at CERN SPS are presented. Results are compared with measurements at similar energies by the STAR experiment at RHIC.

Elliptic flow is measured using the event plane method. Event plane angle and the negatively charged pions are reconstructed using particle's tracks and energy loss measurement in the Time Projection Chamber (TPC).

In the future, these results will be used as a reference for flow measurements from the lead ion energy scan program of the NA61/SHINE experiment at CERN SPS.

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Session Classification : Poster session and coffee&reception