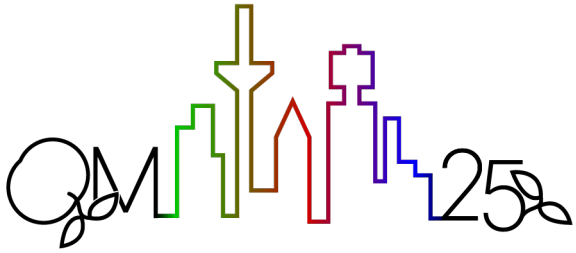

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Anisotropic flow of identified particles in ^{16}O$-^{16}$O collisions at $\sqrt{s_{NN}}$ = 7 TeV

The observation of long-range multiparticle azimuthal correlations, quantified through anisotropic flow coefficients (v_n), and strangeness enhancement in high multiplicity p$-$p and p$-$Pb collisions in ALICE experiment at LHC indicate the possibility of formation of quark-gluon plasma (QGP) medium in small collision systems. The observation of these phenomena, which are expected to exist only in large systems (e.g., Pb$-$Pb and Xe$-$Xe), require further investigations to understand the origin of observed collectivity in small systems and its modeling in Monte Carlo simulations.\par
LHC RUN 3 has a plan for ^{16}O$-^{16}$O and p$-^{16}$O collisions at $\sqrt{s_{NN}}$ = 7 TeV and 9.9 TeV respectively. O-O collisions have multiplicity range overlapping with both p$-$Pb and Pb$-$Pb collisions. The transition of apparent collectivity from large to small systems will be better understood in a region of similar multiplicity density between ^{16}O$-^{16}$O and Pb$-$Pb. \par
In present work, we utilize JETSCAPE framework to study the anisotropic flow coefficients (v_n) of identified particles produced in ^{16}O$-^{16}$O collisions at $\sqrt{s_{NN}}$ = 7 TeV.

Category

Theory

Collaboration (if applicable)

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