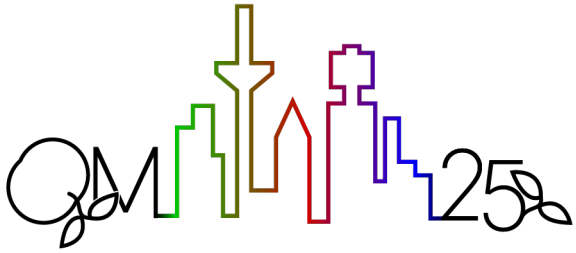

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Collective flow measurements in Pb–Pb collisions at $\sqrt{s_{\rm NN}} = 5.36$ TeV at the LHC with ALICE

Anisotropic flow is one of the key signatures of the quark–gluon plasma (QGP) created in relativistic heavy-ion collisions at the LHC. This phenomenon is generally quantified by the different harmonics, v_n, of the Fourier expansion measured through the azimuthal distribution of final-state particles. In this poster contribution, we report on the first results of $v_n\{m\}$ measurements of charged hadrons from multi-particle correlations (m) evaluated with the Generic Framework in Pb–Pb collisions at $\sqrt{s_{\rm NN}} = 5.36$ TeV recorded in 2023 with ALICE. These results are compared to both ALICE results from the previous LHC run at $\sqrt{s_{\rm NN}} = 5.02$ TeV and state-of-the-art hydrodynamical calculations to provide new input for future models and further constrain the properties of the QGP. We will also highlight the prospects for the first Run 3 measurements of charge-dependent flow relative to the spectator plane, which can be used to probe the strong early-stage electromagnetic fields in heavy-ion collisions.

Category

Experiment

Collaboration (if applicable)

ALICE

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