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## Charge dependent correlations relative to the fourth harmonic event plane and an estimate of the background effects in CME measurements

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Charge dependent azimuthal correlations relative to the reaction plane measured by the STAR collaboration at RHIC and ALICE at the LHC are consistent with expectations from the strong local parity violation in QGP manifesting itself via the Chiral Magnetic Effect. The background to these measurements comes from interplay of strong anisotropic flow and correlations not related to CME. In this study, we present results on charge dependent correlations relative to the fourth harmonic event plane measured with the ALICE detector at the LHC in Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV. These correlations, measured relative to the fourth harmonic event plane, are insensitive to the presence of CME, unlike the ones measured relative to the second harmonic event plane, but include possible backgrounds due to anisotropic flow thus providing an estimate of the background effects affecting the previous measurements.

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