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Mixed harmonic charge dependent azimuthal correlations in Pb-Pb collisions at 2.76 TeV measured with the ALICE experiment at the LHC

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The charge dependence of the azimuthal correlations between produced hadrons is an important probe of the QGP matter created in relativistic heavy-ion collisions. In this talk, we will present the mixed harmonic charge dependent azimuthal correlations measured at mid-rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV by the ALICE Collaboration at the LHC. We observe a clear charge separation of hadrons with respect to the reaction plane measured via the mixed harmonic multi-particle technique. Implications from these measurements for the possible effects of local parity violation in the strong interaction and for models which incorporate the effects of local charge conservation on freeze-out surface and azimuthal flow will be discussed.

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