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Charge dependent azimuthal correlations in PbPb collisions at $\sqrt{s_{NN}} = 2.76$˜TeV

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Separation of charges along the extreme magnetic field created in non-central relativistic heavy-ion collisions is predicted to be a signature of local parity violation in strong interactions. We report on results for charge dependent two particle azimuthal correlations with respect to the reaction plane for Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$˜TeV recorded in 2010 with ALICE at the LHC. The results are compared with measurements at RHIC energies and against currently available model predictions for LHC. Systematic studies of possible background effects including comparison with conventional (parity-even) correlations simulated with Monte-Carlo event generators of heavy-ion collisions will be also presented.

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