

# Measurement of Fourier components of two-particle correlations in PbPb collisions at $\sqrt{s}=2.76\text{TeV}$ with CMS

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Measurements from the CMS experiment at the LHC of dihadron correlations for charged particles produced in PbPb collisions at a nucleon-nucleon centre-of-mass energy of 2.76 TeV are presented. The results are reported as a function of the particle transverse momenta and collision centrality over a broad range in relative pseudorapidity ( $\Delta\eta$ ) and the full range of relative azimuthal angle ( $\Delta\phi$ ). A Fourier harmonic decomposition analysis of the long-range azimuthal dihadron correlations is performed. The factorization relation between the extracted Fourier coefficients and a product of single-particle azimuthal anisotropies are studied and discussed in detail. These data provide important insight on the physical origin of the observed long-range dihadron correlations.

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