Abstract Submitted for the DNP11 Meeting of The American Physical Society

Measurement of higher order flow harmonics in PbPb collisions at 2.76 TeV by CMS¹ YUTING BAI, University of Illinios at Chicago, CMS COLLABORATION — Collective flow is an important probe of the earliest stages in the expansion of the hot and dense matter created in relativistic heavy-ion collisions. Higher harmonics of the azimuthal distribution of emitted particles, in particular v_3 and v_4 , complement v_2 measurements in elucidating the dynamical evolution of the bulk medium and providing constraints on its transport properties and initial conditions. With its large acceptance and broad rapidity coverage, the CMS detector is ideally suited to provide detailed analyses of higher order harmonic flow at the LHC. Measurements of higher order flow harmonics, v_n , in PbPb collisions at 2.76 TeV from the CMS detector will be presented as a function of p_T and centrality. Connections of the results to the properties of the medium will be discussed.

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