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Elliptic flow measurement in $\sqrt{s_{NN}} = 2.76$ TeV Pb+Pb collisions with the Lee-Yang Zeros method SHENGQUAN TUO, Vanderbilt University, CMS COLLABORATION — Event-by-event azimuthal correlations of charged hadrons produced in high energy heavy ion collisions are likely to contain crucial information on the hot and dense matter produced in the early stages of the collisions. Such correlations may be caused by the collective motion in the system (flow), or by jets, resonance decays, and quantum correlations (non-flow). The Lee-Yang Zeros method of extracting elliptic flow (the second Fourier coefficient of the charged hadron azimuthal distributions) can successfully remove most of the non-flow correlations. We present the CMS measurement of elliptic flow in $\sqrt{s_{NN}} = 2.76$ TeV Pb+Pb collisions as a function of transverse momentum, pseudorapidity and centrality obtained with the Lee-Yang Zeros method. The effect of jets on the signal extraction is also studied.

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