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## Measurement of elliptic and higher order flow harmonics at $\sqrt{s_{NN}} = 2.76 \text{ TeV}$ Pb+Pb collisions with the ATLAS Detector.

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The flow harmonics  $v_n$  are important bulk observables in heavy ion collisions. They contain information about the initial geometry as well as the transport properties of the medium produced in heavy ion collisions. We present the measurements of flow harmonics  $v_2-v_6$  using the EP method and two particle correlations method in broad  $p_T$ ,  $\eta$  and centrality ranges using the ATLAS detector at LHC. ATLAS recorded, 9ub-1 Pb+Pb data in the 2010 heavy ion run. This large dataset and large detector acceptance  $2\pi$  in azimuth and  $\pm 2.5$  units in  $\eta$  for charged hadrons, allows for a detailed study of the flow harmonics. The phase space regions where the two methods are consistent and where they disagree will be discussed. We show that the novel structures seen in two particle correlations such as the near and away side ridge as well as the so called “mach-cone” are entirely accounted for by the collective flow. Some interesting scaling relations between the  $v_n$  will also be shown.

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