Contribution ID: **7** Type: **Oral**

Azimuthal anisotropy in 5.02 TeV Pb+Pb and 5.44 TeV Xe+Xe collisions with the ATLAS experiment

Saturday, 6 April 2019 16:00 (20 minutes)

The high-statistics experimental data collected by the ATLAS experiment during the 2015 Pb+Pb and 2017 Xe+Xe LHC runs are used to measure charged particle azimuthal anisotropy.
ATLAS measurements of differential and global Fourier harmonics of charged particles (v_n) in 5.02 TeV Pb+Pb and 5.44 TeV collisions in a wide range of transverse momenta (up to 60 GeV), pseudorapidity ($|\eta|$<2.5) and collision centrality (0-80%) are presented. The higher order harmonics, sensitive to fluctuations in the initial state, are measured up to n=7 using the two-particle correlation, cumulant and scalar-product methods. The elliptic and triangular flow harmonics show an interesting universal pT-scaling. The flow results allow to improve the understanding of initial conditions of nuclear collisions, hydrodynamical behavior of quark-gluon plasma and parton energy loss.

Primary author: BURKA, Klaudia (Polish Academy of Sciences (PL))

Presenter: BURKA, Klaudia (Polish Academy of Sciences (PL))

Session Classification: Session IV