



Contribution ID: 83

Type: Oral

Measurement of elliptic and triangular flow with multiparticle correlations in pPb collisions at 8.16 TeV

Wednesday, June 26, 2019 4:30 PM (20 minutes)

The second- and third-order azimuthal anisotropy Fourier harmonics are studied in pPb collisions at $\sqrt{s_{\text{NN}}} = 8.16$ TeV over a wide range of event multiplicities. Multiparticle correlations are used to isolate global properties stemming from the collision overlap geometry. The second-order, elliptic harmonic moment is obtained with high precision through four-, six-, and eight-particle correlations and, for the first time, the third-order, triangular harmonic moment is studied using four-particle correlations. A sample of peripheral PbPb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV that covers a similar range of event multiplicities to the pPb results is also analyzed. Model calculations of initial-state fluctuations in pPb and PbPb collisions can be directly compared to the high precision experimental results. This work provides new insight on the fluctuation-driven geometry at the earliest stages of heavy ion collisions.

Primary author: PETRUSHANKO, Sergey (Moscow State University)

Presenter: TUO, Shengquan (Vanderbilt University (US))

Session Classification: Parallel: Collectivity in small systems 2

Track Classification: Collectivity in small systems