

Document details

< Back to results | 1 of 254 Next >

Export Download Print E-mail Save to PDF Add to List More... >

[Full Text](#) View at Publisher

Nuclear Physics A
Volume 982, February 2019, Pages 375-378

Multiparticle correlations and higher order harmonics in pPb collisions at $s_{NN} = 8.16\text{TeV}$ (Article) [\(Open Access\)](#)

Wang, Q., CMS Collaboration

The University of Kansas, United States

Abstract

[View references \(17\)](#)

The elliptic and higher-order azimuthal anisotropy Fourier harmonics (v_n) are obtained for pPb collisions at $s_{NN} = 8.16\text{TeV}$ over a wide range of event multiplicities based on multiparticle correlations. The data were collected by the CMS experiment during the 2016 LHC run. A sample of peripheral PbPb collisions at $s_{NN} = 5.02\text{TeV}$ covering a similar range of event multiplicities to the pPb results is also analyzed for comparison. The ratios of different harmonic moments are obtained for both v_2 and v_3 with high precision, which allows a direct comparison to theoretical predictions assuming a hydrodynamic evolution of the created medium with initial-state density fluctuations, particularly probing the non-Gaussian nature of initial-state fluctuations in small collision systems. The presented results provide crucial insights into the origin of collective long-range correlations observed in small collision systems. © 2018

SciVal Topic Prominence

Topic: collisions | ionic collisions | viscous hydrodynamics

Prominence percentile: 99.246

Author keywords

[CMS](#) [collectivity](#) [cumulant](#) [flow](#) [heavy ion](#) [quark-gluon plasma](#) [small system](#)

ISSN: 03759474
CODEN: NUPAB
Source Type: Journal
Original language: English

DOI: 10.1016/j.nuclphysa.2018.09.064
Document Type: Article
Publisher: Elsevier B.V.

References (17)

[View in search results format >](#)

All [Export](#) Print E-mail Save to PDF [Create bibliography](#)

Metrics

0 Citations in Scopus

0 Field-Weighted
Citation Impact



PlumX Metrics

Usage, Captures, Mentions,
Social Media and Citations
beyond Scopus.

Cited by 0 documents

Inform me when this document
is cited in Scopus:

[Set citation alert >](#)

[Set citation feed >](#)

Related documents

Measurement of long-range multiparticle azimuthal correlations with the subevent cumulant method in pp and p+Pb collisions with the ATLAS detector at the CERN Large Hadron Collider

Aaboud, M. , Aad, G. , Abbott, B. (2018) *Physical Review C*

Evidence for collectivity in pp collisions at the LHC

Khachatryan, V. , Sirunyan, A.M. , Tumasyan, A. (2017) *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*

Observation of Correlated Azimuthal Anisotropy Fourier Harmonics in pp and p+Pb Collisions at the LHC

Sirunyan, A.M. , Tumasyan, A. , Adam, W. (2018) *Physical Review Letters*

[View all related documents based on references](#)