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Measurements of collectivity in the forward region at LHCb

Thursday 7 April 2022 09:00 (20 minutes)

Particle flow measurements, which provide evidence of the QGP medium, are a powerful tool to study the QGP evolution in heavy-ion collisions. Using the two-particle correlation technique, LHCb has observed the ridge structure due to particle flow, in the forward pseudorapidity range $2 < \eta < 5$ alongside the leading jet peak in long-range correlations ($|\eta| > 2$). This talk will detail the analysis of the ridge structure in *p*Pb/Pb*p* collisions at 5^TTeV and the results, which show that the ridge structure is more pronounced in the low transverse momentum region and the high multiplicity events where the collective flow property of QGP may be significant. This presentation will also include the details of new LHCb analyses to extract the flow harmonics in the forward region.

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