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## ATLAS and CMS results on collectivity in small-systems (20+5)

*Tuesday, 12 October 2021 17:15 (20 minutes)*

This talk presents an overview of recent measurements from the ATLAS and CMS collaborations that study collective behavior in  $p$ +Pb and  $pp$  collisions. For  $p$ +Pb collisions, measurements of collective behavior involving strange, charm and bottom hadrons are presented. Measurements of elliptic anisotropy in Ultra-peripheral  $p$ +Pb collisions, which are in fact  $p+\gamma$  collisions, are presented and compared to corresponding measurements in hadronic  $p$ +Pb collisions. Several measurements that investigate the long-range correlations observed in  $pp$  collisions, commonly called the “ridge”, are presented. A study of the dependence of the ridge on the presence of a hard process in the event, namely a  $Z$ -boson, is presented, and its implications are discussed. Studies of the long-range correlations in  $pp$  collisions involving heavy-flavor hadrons are presented. Finally, correlation measurements with an active rejection of particles associated with semi-hard processes, such as low- $p_T$  jets, are also discussed. These measurements can give further insight into the origin of the  $pp$  ridge.

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