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Type: **Parallel session talk**

Measurement of collective dynamics in small and large systems with the ATLAS detector

Tuesday 22 August 2023 16:00 (20 minutes)

This talk presents the latest ATLAS measurements of collective phenomena in various collision systems, including pp collisions at 13 TeV, Xe+Xe collisions at 5.44 TeV, and Pb+Pb collisions at 5.02 TeV. These include measurement of v_n -[pT] correlations in pp, Xe+Xe, and Pb+Pb, which carry important information about the initial-state geometry of the Quark-Gluon Plasma, provide an insight as to what effects are observed without invoking hydrodynamic modeling, and can potentially shed light on any quadrupole deformation in the Xe nucleus. This talk will also present measurements of flow decorrelations differential in rapidity probing the longitudinal structure of the colliding system and study of the sensitivity of collective behavior in pp collisions to the presence of jets, which seek to distinguish the role that semi-hard processes play in the origin of these phenomena.

Collaboration / Activity

ATLAS

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