

# WPCF 2023 - XVI Workshop on Particle Correlations and Femtoscopy & IV Resonance Workshop 2023



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## Flow correlations and flow-transverse momentum correlations at ALICE

*Tuesday, 7 November 2023 18:30 (15 minutes)*

In the past years, evidence of anisotropic flow has been observed in small collision systems at the LHC; however, its precise origin remains unknown.

In this talk, we will present the measurements of correlations between different flow harmonics in pp and Pb–Pb collisions.

The measurement of the correlation between the mean transverse momentum and flow coefficients,  $\rho(v_n^2, [p_T])$ , in pp, p–Pb, and Pb–Pb collisions will also be discussed.

The correlations between different flow harmonics coefficients provide tight constraints on the fluctuating initial geometry and allow us to explore how anisotropic flow develops from the initial geometry through the dynamic evolution in the small collision systems.

The correlations between flow harmonics and transverse momentum provide information on the correlation between the shape and size of the created QCD matter in collisions.

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