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Multiplicity dependence of long and short-range two-particle correlation in $\sqrt{s} = 7\text{TeV}$ proton-proton collisions at LHC-ALICE experiment

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Previously observed ridge-like structures in high-energy heavy-ion collisions has mostly been explained by event anisotropy of the initial geometrical distribution of participants, followed by collective expansion. Fluctuations of the initial geometry are known to become more and more significant in peripheral collisions, while the collective expansion should become stronger in semi-central to central collisions. High-multiplicity pp collisions may provide important information on ridge-like structure in small- and high density-system or possible source of collectivity. The $\Delta\varphi$ - $\Delta\eta$ correlation has been measured with central and forward detectors in pp collisions at $\sqrt{s} = 7\text{ TeV}$ with the ALICE detector, jet shapes at $\Delta\varphi \approx 0$, $\Delta\eta \approx 0$, and $\Delta\varphi \approx \pi$ and ridge-like structure in $|\Delta\eta| > 1.5$. The presence of long-range $\Delta\eta$ correlations in pp collisions will be investigated and the potential biases using different combinations of forward and central barrel detectors will be discussed.

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