Contribution ID: **201** Type: **Parallel**

Two- and three-particle Bose-Einstein correlations in small collision systems at LHCb

Thursday 10 July 2025 08:47 (17 minutes)

The new results on three-pion Bose-Einstein correlations measured with the sample of proton-proton collisions recorded at the centre-of-mass energy of $\sqrt{s}$ = 7 TeV will be presented, being the first study of three-particle Bose-Einstein correlations measured in the forward region provided by the LHCb detector. The results are interpreted within the core-halo model for the first time in proton-proton collisions. Together with previous LHCb results on two-pion Bose–Einstein correlations measured for the first of this in the forward rapidity region at LHC energies, it confirms the observation of collective phenomena in the small collision systems.

Secondary track

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Session Classification: T05

Track Classification: T05 - QCD and Hadronic Physics