LEVY ANALYSIS OF BOSE–EINSTEIN
CORRELATIONS IN $pp$ COLLISIONS AT $\sqrt{s} = 7$ TeV
MEASURED WITH THE ATLAS

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Bose–Einstein correlations in proton–proton collisions is an effective tool to study the space structure of the production amplitude. Usually rather simple parameterization of particle-emission distribution function is used — exponential or gaussian form. However, if one considers a particle source as an expanding media, the symmetric Levy distribution as the generalization exponential can be used. Then additional parameter — the index of stability — will appear. All parameters of dependence on the charged particle density and on the mean transverse momentum of the pion/hadron in the correlated pair are investigated.

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