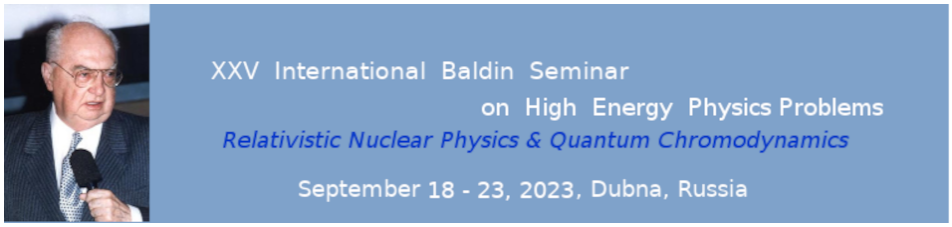

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Multiplicity correlations in the model with string clusters in pp collisions at LHC energies

Thursday, 21 September 2023 12:40 (20 minutes)

In the framework of the model with string fusion we study the correlations between multiplicities in two separated rapidity windows in pp collisions at LHC energies and compare the results with the data obtained by ALICE collaborations at CERN.
The Monte Carlo modelling in the framework of a quark-gluon string model were implies. The string fusion effects were also taken into account by implementing of a lattice (grid) in the impact parameter plane. Correlation coefficient between multiplicities was calculated for three different energies for four values of the width of the observation rapidity windows as a function of the distance between this windows.
The model with string clusters describes the properties of the behaviour of the correlation coefficient: increase with increasing energy, decrease with the increasing rapidity distance between this windows, non-linear dependence on rapidity window's width.
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