

XXV International Baldin Seminar on High Energy Physics Problems "Relativistic Nuclear Physics and Quantum Chromodynamics"



XXV International Baldin Seminar
on High Energy Physics Problems
Relativistic Nuclear Physics & Quantum Chromodynamics
September 18 - 23, 2023, Dubna, Russia

Contribution ID: 165

Type: **not specified**

Active role of gluons in multiparticle production

Friday, 22 September 2023 11:20 (20 minutes)

This report is dedicated to multiparticle production in lepton and hadron interactions, in particular, the region of high multiplicity.

Our gluon dominance model allows us to describe multiplicity distributions in these processes. This model includes two stages: partonic and hadronization. It confirms the active role of gluons in multiparticle production. predicts a few collective phenomena in the region of high multiplicity: pionic (Bose-Einstein) condensate formation, excess of soft photon yield, Cherenkov radiation of gluons and others. They have been observing at U-70 accelerator in pp interactions.

We propose to study some of them at the SPD setup.

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Session Classification: Parallel: Quantum chromodynamics at large distances