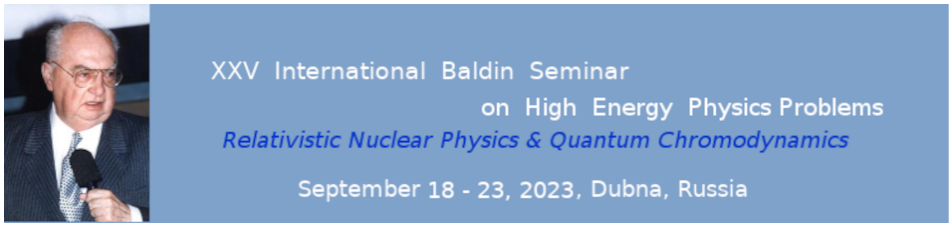

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Observation of structures at ~ 17 and ~ 38 MeV/c2 in the $\gamma\gamma$ invariant mass spectra in pC, dC, and dCu collisions at plab of a few GeV/c per nucleon

Friday, 22 September 2023 15:50 (20 minutes)

The results of an analysis of the invariant mass spectra of photon pairs produced in dC, pC and dCu interactions at momenta of 2.75, 5.5 and 3.83 GeV/c per nucleon respectively, are presented. Signals in the form of enhanced structures at invariant masses of about 17 and 38 MeV/c2 are observed. The results of testing of the observed signals, including the results of the Monte Carlo simulation are presented. The test results support the conclusion that the observed signals are the consequence of detection of the particles with masses of about 17 and 38 MeV/c2 decaying into a pair of photons.

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