

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



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

Contribution ID: 10

Type: **not specified**

New results in kt -factorization for ep-processes

Thursday, 21 September 2023 16:50 (20 minutes)

We report on newest results in kt -factorization for ep-processes. We describe HERA data on longitudinal structure function measurements as well as on associated prompt photon and jet photoproduction. The calculations include first application of the new LLM-2022 transverse momentum dependent gluon distribution developed by the authors. The study includes also the first implementation of parton showers for photoproduction processes in kt -factorization. The data are described well with the simulations. We also present the new version of Monte-Carlo generator PEGASUS, where ep-processes are included.

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Session Classification: Parallel: Structure functions of hadrons and nuclei