



Contribution ID : 126

Type : Oral talk

Double longitudinal spin asymmetry of direct photons in collisions of longitudinally polarized protons in the NLO approximation taking into account electromagnetic corrections

Friday, 30 October 2026 11:30 (15)

This paper presents a comparative analysis of the various contributions of subprocesses to the double longitudinal spin asymmetry of direct photons produced in collisions of polarized protons at PHENIX and SPD energies in the NLO approximation, which has not been considered previously. The contributions of each subprocess and all subprocesses together are presented at energies of 510 and 27 GeV. A comparison of the calculated and experimental results at 510 GeV is presented, demonstrating good agreement. The results obtained at 27 GeV can be considered as a prediction for the SPD experiment.

The work was carried out within the framework of the State assignment for conducting fundamental research (topic code FSEG-2025-0009).

Primary author(s) : KRUASHVILI, Dmitry (Peter the Great St.Petersburg Polytechnic University)

Co-author(s) : BERDNIKOV, Yaroslav (Peter the Great St. Petersburg Polytechnic University)

Presenter(s) : KRUASHVILI, Dmitry (Peter the Great St.Petersburg Polytechnic University)

Session Classification : High energy physics: theory

Track Classification : High energy physics: theory