Contribution ID: **679** Type: **Contributed Talk**

The SPD experiment at NICA

Tuesday, 13 April 2021 10:51 (18 minutes)

The SPD (Spin Physics Detector) facility is meant to be a universal 4π detector at the new collider complex NICA at the Joint Institute for Nuclear Research (JINR, Russia). The main goal of the experiment is to study the polarized gluon structure of proton and deuteron in the production of charmonium, open charm and direct photons. At its initial stage, SPD will also focus on various unpolarized and spin-dependent effects in interactions of protons, deuterons and light nuclei. The detector will be equipped with a silicone vertex detector, straw-tube detector, time-of-flight system, electromagnetic calorimeters and a range system for muon identification. A solenoidal magnetic field of 1 T will be provided by six superconductive coils. A luminosity of 10³² s⁻¹cm⁻² can be achieved for colliding p-p beams at the maximum interaction energy of sqrt(s) = 27 GeV. Both longitudinal and transverse beam polarization will be available. Conceptual Design Report (CDR) of the experiment was released by the collaboration in the winter 2021. The status of the experiment will be reviewed.

Primary author: KORZENEV, Alexander (Joint Institute for Nuclear Research)

Presenter: KORZENEV, Alexander (Joint Institute for Nuclear Research)

Session Classification: Future Experiments

Track Classification: Future Experiments