

LXXII International conference "Nucleus-2022: Fundamental problems and applications"

Contribution ID: 172

Type: **Semi-plenary talk (30 min + 5 min questions)**

POSSIBLE PHYSICS STUDIES AT THE FIRST STAGE OF THE NICA SPD PROGRAMME

Thursday, 14 July 2022 11:00 (30 minutes)

In the talk will be done a review of suggestions for experiments with usage of the Spin Physics Detector (SPD) at the first stage of the NICA SPD Programme developing in JINR [1]. Double polarized pp, dd and pd collisions at c.m.s. NN energies of 3-10 GeV, which will be accessible at the initial stage of the planned experiments, allow one to study spin dependence of the NN interaction, search for multiquark states at double strangeness, charm and beauty thresholds, study the short range structure of the deuteron and color transparency phenomenon. Furthermore, double polarized pd scattering offers a possibility to test the Standard Model through the search for T-invariance violation.

[1]. V.V. Abramov et al. , Phys. Part. Nucl. 52, 1044 (2021); 2102.08477 [hep-ph]

The speaker is a student or young scientist

No

Section

1. Intermediate and high energies, heavy ion collisions

Primary author: UZIKOV, Yuriy (JINR, M.V. Lomonosov MSU, Dubna State University)

Presenter: UZIKOV, Yuriy (JINR, M.V. Lomonosov MSU, Dubna State University)

Session Classification: Plenary session