

Нацыянальная акадэмія навук Беларусі

Дзяржаўная навуковая ўстанова

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Национальная академия наук Беларуси

Государственное научное учреждение

**ИНСТИТУТ  
ПРИКЛАДНОЙ ФИЗИКИ**

220072, г. Минск, ул. Академическая, 16

14.01.2019 № 152-01-06/15  
На № \_\_\_\_\_ от \_\_\_\_\_

JINR Vice-Director for the NICA  
Project and Director of the Laboratory  
of High Energy Physics  
Prof. Vladimir Kekelidze

Dear Prof. Vladimir Kekelidze

Institute of Applied Physics of the National Academy of Sciences of Belarus expresses interest in participating in upcoming experiments on the NICA-SPD complex.

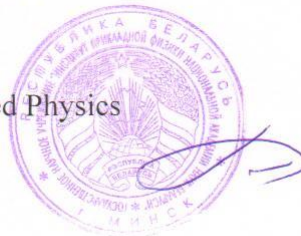
Experiments on polarized beams with the coverage close to  $4\pi$  detector make it possible to study a wide spectrum of spin physics phenomena that shed light on the spin structure of a nucleon, such as Drell-Yan pair production processes,  $J/\psi$  production, and other.

In addition, the use of polarized protons and deuterons opens up potential opportunities for studying the structure of nucleons within

- studying pion photoproduction as subprocess in  $pd$  collision process;
- checking the Gerasimov-Drell-Hearn sum rules for proton and deuteron;
- studying of neutron polarizabilities in collisions involving elastic Compton scattering on the deuteron as subprocess.

Institute of Applied Physics of the National Academy of Sciences of Belarus is interested in collaborating to form a physical research program on SPD, to make Monte Carlo modeling, and in working together in the field of precision measurements of magnetic fields.

Director of Institute of Applied Physics  
of NAS of Belarus



Roman Shulyakovsky