National Research Centre «Kurchatov Institute» Institute for Theoretical and Experimental Physics named by A.I. Alikhanov of National Research Centre «Kurchatov Institute»

NRC «Kurchatov Institute» – ITEP

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

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Dear Prof. Vladimir Kekelidze

Institute for Theoretical and Experimental Physics named by A.I. Alikhanov of National Research Centre "Kurchatov Institute" is interested participate in design subdetectors and physical investigations at Spin Physics Detector (SPD) with polarized (proton and deuteron) and other light ion beams in the following issues:

- research of rare interactions that are characterized with high transverse momentums of all secondary particles in SPD, and also development and support of the required software for the event simulations and result processing;
- ▲ extreme states of nuclear matter:
- development, including the prototype creation, of the detector for identifying spectator neutrons under the influence of the light nuclei beam;
- control and measurement of beam polarizations at NICA collider;
- ▲ theoretical support of the experiments based on the numerical calculations in lattice quantum chromodynamics;
- participation in design of SPD subsystems;

Sincerely yours,

Deputy Director,

Alexander Golubey