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The Spin Physics Detector at NICA

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The Spin Physics Detector (SPD) is planned to run at the NICA collider that is currently under construction at JINR (Dubna). The main goal of SPD is to study the spin structure and other spin-related phenomena of the nucleon. SPD will operate with polarized proton-proton, deuteron-deuteron, and proton-deuteron collisions at energies up to $\sqrt{s}=27$ GeV and luminosity up to 10^{32} cm $^{-2}$ s $^{-1}$. The experiment setup is planned to be a universal multipurpose 4π detector. Possible SPD studies with unpolarized proton and deuteron beams, at the first stage of NICA operation, are also being investigated.

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