

## Deuteron and proton beams polarimetry at internal target at JINR Nuclotron.

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The spin program at SPD NICA as well as the experiments at Nuclotron require high intensity polarized proton and deuteron beams with high value of the polarization.

The upgraded deuteron beam polarimeter at internal target at Nuclotron [1] has been used to obtain the vector and tensor polarization for 6 different spin modes of new polarized source of ions [2]. The values of the beam polarization was about 65-75% from their ideal values. The longterm stability of the deuteron beam polarization was demonstrated.

The polarization of the firstly accelerated at Nuclotron proton beam has been measured at 500 MeV using quasi-elastic proton-proton scattering using internal target polarimeter [1]. The obtained value of the vertical polarization was about about 35%.

Further perspectives of the beam polarimetry development for NICA is discussed.

[1] P.K.Kurilkin et al., Nucl.Instr.Meth. in Phys.Res. A642 (2011) 45.

[2] A.S.Belov et al., J.Phys.Conf.Ser. 938 (2017) 012017.

**Primary author:** Dr LADYGIN, Vladimir (VBLHEP JINR)

**Presenter:** Dr LADYGIN, Vladimir (VBLHEP JINR)

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