

Tagging system for the polarized beams at U-70 accelerator

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A beam line of polarized protons and antiprotons, obtained from decays of Λ (anti- Λ)-hyperons for SPASCHARM experiment at U-70 accelerator is under development at IHEP, Protvino. For precise asymmetry measurements one needs to know beam polarization with a relatively low error. Tagging of the beam particle provides a possibility to perform measurements for both polarizations of the beam at the same time to reduce systematic errors and increase statistics. Beam tagging station will measure both polarization and beam particle momenta on-line. The correlation between the position of the proton (antiproton) with respect to the channel axis and the value of its polarization is used to measure the relative polarization. The system of detectors with good spatial resolution designed for those measurements as an integral part of the beam line of polarized particles is discussed in the report

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