

The scintillation detector prototype of an extended version of the SPD Beam-Beam Counter detector

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The Spin Physics Detector is a collider experiment at NICA designed to study the spin structure of the proton and deuteron and other spin-related phenomena using polarized beams. One of the subsystems of the SPD is the Beam-Beam Counters (BBC). Two scintillator-based BBC detectors will be installed symmetrically upstream and downstream the interaction point and will serve as a tool for beam diagnostics including local polarimetry. The BBCs will be designed as high granularity scintillation detector.

In this talk, we present the tests of a BBC prototype based on the scintillation tiles produced by Uniplast (Vladimir). The prototype was equipped with the Saint-Gobain Crystals green wavelength shifter, 1x1 mm² SensL SiPM, and CAEN FERS-5200 front-end readout system. The first obtained results are discussed.

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