

Welcome to NICA days 2017 in Warsaw



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Study of the MPD detector performance in p+p collisions at NICA

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Basic measurements of p+p collisions are required either, as a benchmark for the heavy-ion collision measurements, and to obtain a better understanding of light collision systems. In this work, the MC simulation and reconstruction of p+p collisions at $\sqrt{s} = 4 - 20$ GeV was performed to explore the possibilities of using the Multi-Purpose Detector (MPD) to register data from p+p collisions at the energies range of NICA. The events were generated by using the code PHSD in HSD mode while the MPDRoot code was used to simulate and reconstruct the generated data. We present a preliminary performance analysis of MPD. The possibility of reconstructing neutral Lambda baryon from p+p, as one of the most promising observables in heavy ion collisions is also discussed.

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