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Simulation of the SBS Polarimeter for GEp(5) Experiment YANG WANG, College of William and Mary, SBS COLLABORATION — Before running experiment GEp(5), we need to predict the characteristic performance of the Focal Plane Polarimeter (FPP) required for the experiment with a simulation of the processes involved. In the simulation, the probability that a proton incident on the polarimeter will generate a single and charged particle which can be detected by the tracking detectors is evaluated. In this talk, the results of the simulation will be displayed, such as the scattering angle distribution, the interaction position and the cone-test result of the detected charged particles; prediction for the probability to detect a single charged track versus incident proton momentum will be shown. Simulation of the conditions of experiment GEp(2γ) was made to check the reliability of the simulation. The difference between the simulation and the experiment data will be discussed.

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