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Feasibility studies for the measurement of single-spin asymmetry in inclusive K^0 s production at pion beam at U70.

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The SPASCHARM experiment is ready to study spin effects in inclusive production of various particles on polarized target. Commissioning and first data taking run demonstrated that the SPASCHARM setup is ready to measure single spin asymmetry in the fragmentation region of the unpolarized 28 GeV pion beam. We studied the feasibility to measure single spin asymmetry in the reaction $\pi^- p^\uparrow \rightarrow K^0 X$ at the SPASCHARM experiment. We present the estimates of the reconstruction efficiency and the expected number of detected events and accuracy of the measurements for 30-day long data taking run. Results of the Monte-Carlo simulation demonstrate that the expected statistics will allow to measure single-spin asymmetry with accuracy about few percent.

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